



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL
SHELBY COUNTY**

CERTIFIED MAIL

Street Address:

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:
Lazarus Gov.
Center

Application No: 05-12461

DATE: 1/23/2003

Honda of America Mfg Inc
Jeff McCormack
12500 MERANDA RD
ANNA, OH 45302-9699

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
236 East Town Street, Room 300
Columbus, Ohio 43215

Very truly yours,

Michael W. Ahern

Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

CC: USEPA

SWDO



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

**Permit To Install
Terms and Conditions**

**Issue Date: 1/23/2003
Effective Date: 1/23/2003**

FINAL PERMIT TO INSTALL 05-12461

Application Number: 05-12461
APS Premise Number: 0575000174
Permit Fee: **\$1800**
Name of Facility: Honda of America Mfg Inc
Person to Contact: Jeff McCormack
Address: 12500 MERANDA RD
ANNA, OH 45302-9699

Location of proposed air contaminant source(s) [emissions unit(s)]:
12500 Meranda Rd
Anna, Ohio

Description of proposed emissions unit(s):
Modification to correct emission factors and remove control equipment for LPDC aluminum melt furnace, LPDC Heat Treatment Furnace, HPDC Melt Furnance No. 2 - No. 6.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency



Director

Part I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install General Terms and Conditions

1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - i. The date, place (as defined in the permit), and time of sampling or measurements.
 - ii. The date(s) analyses were performed.
 - iii. The company or entity that performed the analyses.
 - iv. The analytical techniques or methods used.
 - v. The results of such analyses.
 - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
 - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous

calendar quarters. See B.9 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

3. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

4. 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.

5. 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.

6. 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. 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.

7. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit To Install fees within 30 days after the issuance of this Permit To Install.

8. 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.

9. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - i. 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.
 - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. 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:
 - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - ii. 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.

10. Permit To Operate Application

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

11. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

12. 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.

B. State Only Enforceable Permit To Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the 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 (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., 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.)

3. 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.

4. Termination of Permit To Install

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

5. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

6. Public Disclosure

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

7. Applicability

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

8. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit To Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

9. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

C. Permit To Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

**SUMMARY (for informational purposes only)
 TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
PE*	11.114 TPY
CO	7.40 TPY
NOx	22.32 TPY
SOx	0.163 TPY
OC	1.41 TPY
HF	0.222 TPY
*Assume PE is all PM-10	

Honda of America Mfg Inc
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Issued: 1/23/2003

Facility ID: **0575000174**

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions

None

B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P021 - LPDC Aluminum Melt Furnace rated @ 2.8 TPH (Modification)	OAC Rule 3745-31-05	0.40 lb Particulate Emissions (PE)/hr and 1.77 tons PE/yr; 0.11 lb Carbon Monoxide(CO)/hr and 0.50 tons CO/yr; 0.89 lb Nitrous Oxides(NOx)/hr and 3.88 tons NOx/yr; 0.005 lb Sulfur Oxides(SOx)/hr and 0.023 tons SOx/yr; 0.05 lb Organic Compounds(OC)/hr and 0.21 tons OC/yr; 0.0084 lb Hydrogen Fluoride(HF)/hr and 0.037 tons HF/yr
	OAC rule 3745-31-05(A)(3)	10% Opacity, as a six minute average, from the stack.
	OAC 3745-17-07 (A)(1)	Less stringent than OAC rule 3745-31-05
	OAC rule 3745-17-11(B)(1)	Less stringent than OAC rule 3745-31-05 (A)(3)

2. Additional Terms and Conditions

- 2.a BAT will be demonstrated by using natural gas to melt aluminum and using good work

practices to minimize releases to the environment.

II. Operational Restrictions

1. The maximum throughput for (P021) LPDC Aluminum Melting Operation shall not exceed 2.8 tons of aluminum per hour.
2. The permittee shall melt no materials other than clean charge and materials generated within the facility (or internal runaround).

III. Monitoring and/or Recordkeeping Requirements

1. No recordkeeping required. 2.8 tons of aluminum per hour represents the maximum designed capacity of the equipment.
2. No recordkeeping required. It is Honda of America's (HAM) practice to melt only aluminum ingot and in house scrap for aluminum melting operations.

IV. Reporting Requirements

None

V. Testing Requirements

Compliance with the emission limitation(s) in section A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):

1. Emission Limitation:

$$\text{AER} = 0.40 \text{ lb PE/ hr}$$

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{MMR}) \times (\text{PEEF}) = 0.40 \text{ lb of PE/ hr}$$

where

AER = Allowable emission rate

MMR = Maximum Melt Rate (2.8 tons of aluminum per hour based on the maximum designed capacity of the equipment)

Emissions Unit ID: P021

PEEF=the PE Emission factor (0.144 lb PE/ton of aluminum melted)(Based on 03/20/99 Emission Test of AEP source P001).

Since these limits reflect the potential emissions of this source, no additional compliance determination is required.

2. Emission Limitation:

AER= 1.77 tons PE per yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 1.77 \text{ tons PE /yr}$$

where

AER= Allowable emission rate = 1.77 tons PE/yr

HER = Hourly Emission Rate (0.40 lbs PE/hr)

AOH = the actual operating hours (Based on 8760 operating hours per year.)

CONV = conversion factor (1 ton/2000 lbs.)

Since these limits reflect the potential emissions of this source, no additional compliance determination is required (Combustion emissions included in PE emission factor).

3. Emission Limitation:

AER= 0.11 lbs CO/hr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{COEF}) = 0.11 \text{ lbs of CO per hr}$$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (9,030,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

COEF = CO Emission Factor (12.8 lb CO/10⁶ scf)(Based on 1/8/02 stack test of P043)

CO Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

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Emissions Unit ID: P021

4. Emission Limitation:

0.50 tons of CO/ yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 0.50 \text{ tons of CO/ yr}$$

where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.11 lbs CO/hr)

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AOH = the actual operating hours (Based on 8760 operating hours/ yr.)
 CONV = conversion factor (1 ton/2000 lbs.)

CO Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

5. Emission Limitation:

0.89 lbs NO_x/hr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{NO}_x\text{EF}) = 0.89 \text{ lbs of NO}_x/\text{ hr}$$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (9,030,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

NO_xEF = NO_x Emission Factor (100 lb NO_x/10⁶ scf)(AP-42 Version 5. Table 1.4-1, 7/98)

NO_x Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

6. Emission Limitation:

3.88 tons of NO_x/ yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 3.88 \text{ tons of NO}_x/\text{ yr}$$

where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.89 lbs NO_x/hr)

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AOH = the actual operating hours (Based on 8760 operating hours per yr.)
 CONV = conversion factor (1 ton/2000 lbs.)

NO_x Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

7. Emission Limitation:

0.005 lbs SO_x/hr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{SO}_x\text{EF}) = 0.005 \text{ lbs of SO}_x/\text{hr}$$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (9,030,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

SO_xEF = SO_x Emission Factor (0.6 lb SO_x/10⁶ scf)(AP-42 Version 5. Table 1.4-2, 7/98)

SO_x Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

8. Emission Limitation:

0.023 tons of SO_x / yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 0.023 \text{ tons of SO}_x/\text{yr}$$

where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.005 lbs SO_x/hr)

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AOH = the actual operating hours (Based on 8760 operating hours per year.)
CONV = conversion factor (1 ton/2000 lbs.)

SO_x Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

9. Emission Limitation:

0.05 lbs OC/ hr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{OCEF}) = 0.05 \text{ lbs of OC/ hr}$$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (9,030,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

OCEF = OC Emission Factor (5.5 lb OC/10⁶ scf)(AP-42 Version 5. Table 1.4-2, 7/98)

OC Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

10. Emission Limitation:

0.21 tons of OC/ yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 0.21 \text{ tons of OC/ yr}$$

where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.05 lbs OC/hr)

AOH = the actual operating hours (Based on 8760 operating hours per year.)

CONV = conversion factor (1 ton/2000 lbs.)

OC Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

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11. Emission Limitation:

0.0084 lb HF/hr

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Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{MMR}) \times (\text{HFEF}) = 0.0084 \text{ lb of HF/ hr}$$

where

AER= Allowable emission rate

MMR = Maximum Melt Rate (2.8 tons of aluminum per hour based on the maximum designed capacity of the equipment)

HFEF=the HF Emission factor (0.003 lb HF/ton of aluminum melted)(SCC ID 3-04-001-09, Fire Database Version 6.23, 10/02).

Since these limits reflect the potential emissions of this source, no additional compliance determination is required.

12. Emission Limitation

0.037 tons HF/ yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 0.037 \text{ tons of HF/ yr}$$

where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.0084 lbs HF/hr)

AOH = the actual operating hours (Based on 8760 operating hours per year.)

CONV = conversion factor (1 ton/2000 lbs.)

Since these limits reflect the potential emissions of this source, no additional compliance determination is required.

13. Emission Limitation:

10% Opacity, as a six minute average, from the stack.

Applicable Compliance Method:

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If requested, 40 CFR Part 60, Method 9, with opacity readings taken from the stack.

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Emissions Unit ID: P021

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P021 - LPDC Aluminum Melt Furnace rated @ 2.8 TPH (Modification)	OAC rule 3745-31-05	LIMIT(s)

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this emission unit was evaluated based on the actual materials and the design parameters of the emission units as specified in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxics Emissions" policy ("Air Toxics Policy") was applied for each pollutant emitted by this emission unit using data from the permit to install application and the SCREEN 3.0 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" usage for this pollutant.

Pollutant: Hydrogen Fluoride

Maximum Hourly Emission Rate: 0.01 lbs HF / hour, 0.05 tons HF/yr

Emissions Unit ID: P021

Maximum Secondary Impact: 0.05 ug/m³ based on 30 day average = (Maximum Impact x 0.18)

Secondary Standard: 0.50 ug/m³ - 30 day average

2. Physical changes or changes in the method of operation of the emission unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxics 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 Toxics Policy" will be satisfied. If, upon evaluation, the permittee determines that the "Air Toxics Policy" will not be satisfied, the permittee will not make the change. Changes that affect the parameters used in applying the "Air Toxics Policy" include the following:
 - a. changes in the composition of the materials used (typically for coating 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 by the most recent version of the handbook entitled "American Governmental Industrial Hygienists (ACGIH)," than the lowest TLV previously modeled;
 - b. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any 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.).

If the permittee determines that the "Air Toxics 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.
3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emission unit will satisfy the "Air Toxics 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 Toxics Policy"; and,
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxics Policy" for the change.

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IV. Reporting Requirements

None

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Emissions Unit ID: P021

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P024 - LPDC Heat Treatment Furnace rated @ 2.8 TPH (Modification)	OAC Rule 3745-31-05	0.10 lb Particulate Emissions (PE)/hr and 0.444 tons PE/yr; 1.12 lb Carbon Monoxide(CO)/hr and 4.91 tons CO/yr; 1.33 lb Nitrous Oxides(NOx)/hr and 5.84 tons NOx/yr; 0.008 lb Sulfur Oxides(SOx)/hr and 0.04 tons SOx/yr; 0.073 lb Organic Compounds(OC)/hr and 0.32 tons OC/yr
	OAC rule 3745-31-05(A)(3)	10% Opacity, as a six minute average, from the stack.
	OAC 3745-17-07 (A)(1)	Less stringent than OAC rule 3745-31-05
	OAC rule 3745-17-11(B)(1)	Less stringent than OAC rule 3745-31-05 (A)(3)

2. Additional Terms and Conditions

- 2.a BAT will be demonstrated by using natural gas for combustion.

II. Operational Restrictions

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Facility ID: 0575000174

Emissions Unit ID: P024

1. The maximum throughput for (P024) LPDC Heat Treatment Furnace shall not exceed 2.8 tons of aluminum castings per hour.

III. Monitoring and/or Recordkeeping Requirements

1. No recordkeeping required. 2.8 tons of aluminum castings per hour represents the maximum designed capacity of the equipment.
2. No recordkeeping required. It is Honda of America's (HAM) practice to heat treat aluminum castings.

IV. Reporting Requirements

None

V. Testing Requirements

1. Emission Limitation:

$$\text{AER} = 0.10 \text{ lb PE/ hr}$$

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{COEF}) = 0.10 \text{ lb of PE/ hr}$$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (13,600,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

COEF = CO Emission Factor (7.6 lb PM/10⁶ scf*)

*Based on AP-42, Version 5, Table 1.4-2, July, 1998 edition

PE emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

2. Emission Limitation:

$$\text{AER} = 0.444 \text{ tons PE per yr}$$

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Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 0.444 \text{ tons PE /yr}$$

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where

AER= Allowable emission rate (0.444 tons PE/yr)

HER = Hourly Emission Rate (0.10 lbs PE/hr)

AOH = the actual operating hours (Based on 8760 operating hours per year.)

CONV = conversion factor (1 ton/2000 lbs.)

Since these limits reflect the potential emissions of this source, no additional compliance determination is required (Combustion emissions included in PE emission factor).

3. Emission Limitation:

AER= 1.12 lbs CO/hr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$AER = (BBTU) \times (1/BCONV) \times (COEF) = 1.12 \text{ lbs of CO per hr}$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (13,600,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

COEF = CO Emission Factor (84.0 lbs CO/10⁶ scf*)

*Based on AP-42 Version 5, Table 1.4-1, July, 1998 edition

CO Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

4. Emission Limitation:

4.91 tons of CO/ yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$AER = (HER) \times (AOH) \times (CONV) = 4.91 \text{ tons of CO/ yr}$

where

AER= Allowable emission rate

HER = Hourly Emission Rate (1.12 lbs CO/hr)

AOH = the actual operating hours (Based on 8760 operating hours/ yr.)

CONV = conversion factor (1 ton/2000 lbs.)

CO Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

5. Emission Limitation:

1.33 lbs NO_x/hr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{NO}_x\text{EF}) = 1.33 \text{ lbs of NO}_x/\text{ hr}$$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (13,600,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

NO_xEF = NO_x Emission Factor (100 lb NO_x/10⁶ scf)(AP-42 Version 5. Table 1.4-1, 7/98)

NO_x Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

6. Emission Limitation:

5.84 tons of NO_x/ yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 5.84 \text{ tons of NO}_x/\text{ yr}$$

where

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AER= Allowable emission rate

HER = Hourly Emission Rate (1.33 lbs NOx/hr)

AOH = the actual operating hours (Based on 8760 operating hours per yr.)

CONV = conversion factor (1 ton/2000 lbs.)

NOx Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

7. Emission Limitation:

0.008 lb SO_x/hr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{SO}_x\text{EF}) = 0.008 \text{ lb of SO}_x/\text{hr}$$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (13,600,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

SO_xEF = SO_x Emission Factor (0.6 lb SO_x/10⁶ scf)(AP-42 Version 5. Table 1.4-2, 7/98)

SO_x Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

8. Emission Limitation:

0.04 tons of SO_x / yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 0.04 \text{ tons of SO}_x/\text{yr}$$

where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.008 lbs SO_x/hr)

AOH = the actual operating hours (Based on 8760 operating hours per year.)

CONV = conversion factor (1 ton/2000 lbs.)

SO_x Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

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9. Emission Limitation:

0.073 lb OC/ hr

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Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{OCEF}) = 0.073 \text{ lb of OC/ hr}$$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (13,600,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

OCEF = OC Emission Factor (5.5 lb OC/10⁶ scf)(AP-42 Version 5. Table 1.4-2, 7/98)

OC Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

10. Emission Limitation:

0.32 tons of OC/ yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 0.32 \text{ tons of OC/ yr}$$

where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.073 lbs OC/hr)

AOH = the actual operating hours (Based on 8760 operating hours per year.)

CONV = conversion factor (1 ton/2000 lbs.)

OC Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required.

11. Emission Limitation:

10% Opacity, as a six minute average, from the stack.

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Applicable Compliance Method:

If requested, 40 CFR Part 60, Method 9, with opacity readings taken from the stack.

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VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P024 - LPDC Heat Treatment Furnace rated @ 2.8 TPH (Modification)	OAC rule 3745-31-05	LIMIT(s)

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P039 - HPDC Melt Furnace Number 2, rated @ 2.5 TPH (Modification)	OAC Rule 3745-31-05	0.36 lb Particulate Emissions (PE)/hr and 1.58 tons PE/yr; 0.083 lb Carbon Monoxide(CO)/hr and 0.36 tons CO/yr; 0.65 lb Nitrous Oxides(NOx)/hr and 2.83 tons NOx/yr; 0.004 lb Sulfur Oxides(SOx)/hr and 0.02 tons SOx/yr; 0.04 lb Organic Compounds(OC)/hr and 0.16 tons OC/yr; 0.008 lb Hydrogen Fluoride(HF)/hr and 0.033 tons HF/yr
	OAC rule 3745-31-05(A)(3)	10% Opacity, as a six minute average, from the stack.
	OAC 3745-17-07 (A)(1)	Less stringent than OAC rule 3745-31-05
	OAC rule 3745-17-11(B)(1)	Less stringent than OAC rule 3745-31-05 (A)(3)

2. Additional Terms and Conditions

- 2.a BAT will be demonstrated by using natural gas to melt aluminum and using good work

practices to minimize releases to the environment.

II. Operational Restrictions

1. The maximum throughput for (P039) HPDC Aluminum Melting Operation #2 shall not exceed 2.5 tons of aluminum per hour.
2. The permittee shall melt no materials other than clean charge and materials generated within the facility (or internal runaround).

III. Monitoring and/or Recordkeeping Requirements

1. No recordkeeping required. 2.5 tons of aluminum per hour represents the maximum designed capacity of the equipment.
2. No recordkeeping required. It is Honda of America's (HAM) practice to melt only aluminum ingot and in house scrap for aluminum melting operations.

IV. Reporting Requirements

None

V. Testing Requirements

Compliance with the emission limitation(s) in section A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):

1. Emission Limitation:

$$\text{AER} = 0.36 \text{ lb PE/ hr}$$

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{MMR}) \times (\text{PEEF}) = 0.36 \text{ lb of PE/ hr}$$

where

AER = Allowable emission rate

MMR = Maximum Melt Rate (2.5 tons of aluminum per hour based on the maximum designed capacity of the equipment)

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PEEF=the PE Emission factor (0.144 lb PE/ton of aluminum melted)(Based on 03/20/99 Emission Test of AEP source P001).

Since these limits reflect the potential emissions of this source, no additional compliance determination is required.

2. Emission Limitation:

AER= 1.58 tons PE per yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 1.58 \text{ tons PE /yr}$$

where

AER= Allowable emission rate (1.58 tons PE/yr)

HER = Hourly Emission Rate (0.36 lbs PE/hr)

AOH = the actual operating hours (Based on 8760 operating hours per year.)

CONV = conversion factor (1 ton/2000 lbs.)

Since these limits reflect the potential emissions of this source, no additional compliance determination is required (Combustion emissions included in PE emission factor).

3. Emission Limitation:

$$\text{AER} = 0.083 \text{ lbs CO/hr}$$

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{COEF}) = 0.083 \text{ lbs of CO per hr}$$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (6,590,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

COEF = CO Emission Factor (12.8 lb CO/10⁶ scf)(Based on 1/8/02 stack test of P043)

CO Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

4. Emission Limitation:

$$0.36 \text{ tons of CO/ yr}$$

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 0.36 \text{ tons of CO/ yr}$$

where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.083 lbs CO/hr)

AOH = the actual operating hours (Based on 8760 operating hours/ yr.)

CONV = conversion factor (1 ton/2000 lbs.)

CO Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

5. Emission Limitation:

0.65 lbs NO_x/hr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{NO}_x\text{EF}) = 0.65 \text{ lbs of NO}_x/\text{ hr}$$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (6,590,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

NO_xEF = NO_x Emission Factor (100 lb NO_x/10⁶ scf)(AP-42 Version 5. Table 1.4-1, 7/98)

NO_x Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

6. Emission Limitation:

2.83 tons of NO_x/ yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 2.83 \text{ tons of NO}_x/\text{ yr}$$

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where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.65 lbs NO_x/hr)

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AOH = the actual operating hours (Based on 8760 operating hours per yr.)
 CONV = conversion factor (1 ton/2000 lbs.)

NO_x Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

7. Emission Limitation:

0.004 lbs SO_x/hr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{SO}_x\text{EF}) = 0.004 \text{ lbs of SO}_x/\text{hr}$$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (6,590,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

SO_xEF = SO_x Emission Factor (0.6 lb SO_x/10⁶ scf)(AP-42 Version 5. Table 1.4-2, 7/98)

SO_x Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

8. Emission Limitation:

0.02 tons of SO_x / yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 0.02 \text{ tons of SO}_x/\text{yr}$$

where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.004 lbs SO_x/hr)

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AOH = the actual operating hours (Based on 8760 operating hours per year.)
 CONV = conversion factor (1 ton/2000 lbs.)

SO_x Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

9. Emission Limitation:

0.04 lbs OC/ hr

Applicable Compliance Method:
 Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{OCEF}) = 0.04 \text{ lbs of OC/ hr}$$

where

AER= Allowable emission rate
 BBTU = Burner BTU/hr (6,590,000 BTU/hr)
 BCONV = BTU to scf conversion factor (1020 BTU/scf)
 OCEF = OC Emission Factor (5.5 lb OC/10⁶ scf)(AP-42 Version 5. Table 1.4-2, 7/98)

OC Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

10. Emission Limitation:

0.16 tons of OC/ yr

Applicable Compliance Method:
 Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 0.16 \text{ tons of OC/ yr}$$

where

AER= Allowable emission rate
 HER = Hourly Emission Rate (0.04 lbs OC/hr)
 AOH = the actual operating hours (Based on 8760 operating hours per year.)
 CONV = conversion factor (1 ton/2000 lbs.)

OC Emissions are generated solely by the combustion of natural gas. These limits represent the

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maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

11. Emission Limitation:

0.008 lbs HF/hr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{MMR}) \times (\text{HF EF}) = 0.008 \text{ lb of HF/hr}$$

where

AER= Allowable emission rate

MMR = Maximum Melt Rate (2.5 tons of aluminum per hour based on the maximum designed capacity of the equipment)

HF EF=the HF Emission factor (0.003 lb HF/ton of aluminum melted)(SCC ID 3-04-001-09, Fire Database Version 6.23, 10/02).

Since these limits reflect the potential emissions of this source, no additional compliance determination is required.

12. Emission Limitation

0.033 tons HF/ yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 0.033 \text{ tons of HF/ yr}$$

where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.008 lbs HF/hr)

AOH = the actual operating hours (Based on 8760 operating hours per year.)

CONV = conversion factor (1 ton/2000 lbs.)

Since these limits reflect the potential emissions of this source, no additional compliance determination is required.

13. Emission Limitation:

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10% Opacity, as a six minute average, from the stack.

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Emissions Unit ID: P039

Applicable Compliance Method:

If requested, 40 CFR Part 60, Method 9, with opacity readings taken from the stack.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P039 - HPDC Melt Furnace Number 2, rated @ 2.5 TPH (Modification)	OAC rule 3745-31-05	LIMIT(s)

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this emission unit was evaluated based on the actual materials and the design parameters of the emission units as specified in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxics Emissions" policy ("Air Toxics Policy") was applied for each pollutant emitted by this emission unit using data from the permit to install application and the SCREEN 3.0 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" usage for this pollutant.

Pollutant: Hydrogen Fluoride

Maximum Hourly Emission Rate: 0.01 lbs HF / hour, 0.05 tons HF/yr

Emissions Unit ID: P039

Maximum Secondary Impact: 0.05 ug/m³ based on 30 day average = (Maximum Impact x 0.18)

Secondary Standard: 0.50 ug/m³ - 30 day average

2. Physical changes or changes in the method of operation of the emission unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxics 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 Toxics Policy" will be satisfied. If, upon evaluation, the permittee determines that the "Air Toxics Policy" will not be satisfied, the permittee will not make the change. Changes that affect the parameters used in applying the "Air Toxics Policy" include the following:
 - a. changes in the composition of the materials used (typically for coating 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 by the most recent version of the handbook entitled "American Governmental Industrial Hygienists (ACGIH)," than the lowest TLV previously modeled;
 - b. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any 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.).

If the permittee determines that the "Air Toxics 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.
3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emission unit will satisfy the "Air Toxics 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 Toxics Policy"; and,
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxics Policy" for the change.

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IV. Reporting Requirements

None

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V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P041 - HPDC Melt Furnace Number 3, rated @ 2.5 TPH (Modification)	OAC Rule 3745-31-05	0.36 lb Particulate Emissions (PE)/hr and 1.58 tons PE/yr; 0.083 lb Carbon Monoxide(CO)/hr and 0.36 tons CO/yr; 0.65 lb Nitrous Oxides(NOx)/hr and 2.83 tons NOx/yr; 0.004 lb Sulfur Oxides(SOx)/hr and 0.02 tons SOx/yr; 0.04 lb Organic Compounds(OC)/hr and 0.16 tons OC/yr; 0.008 lb Hydrogen Fluoride(HF)/hr and 0.033 tons HF/yr
	OAC rule 3745-31-05(A)(3)	10% Opacity, as a six minute average, from the stack.
	OAC 3745-17-07 (A)(1)	Less stringent than OAC rule 3745-31-05
	OAC rule 3745-17-11(B)(1)	Less stringent than OAC rule 3745-31-05 (A)(3)

2. Additional Terms and Conditions

- 2.a BAT will be demonstrated by using natural gas to melt aluminum and using good work

practices to minimize releases to the environment.

II. Operational Restrictions

1. The maximum throughput for (P041) HPDC Aluminum Melting Operation #3 shall not exceed 2.5 tons of aluminum per hour.
2. The permittee shall melt no materials other than clean charge and materials generated within the facility (or internal runaround).

III. Monitoring and/or Recordkeeping Requirements

1. No recordkeeping required. 2.5 tons of aluminum per hour represents the maximum designed capacity of the equipment.
2. No recordkeeping required. It is Honda of America's (HAM) practice to melt only aluminum ingot and in house scrap for aluminum melting operations.

IV. Reporting Requirements

None

V. Testing Requirements

Compliance with the emission limitation(s) in section A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):

1. Emission Limitation:

$$\text{AER} = 0.36 \text{ lb PE/ hr}$$

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{MMR}) \times (\text{PEEF}) = 0.36 \text{ lb of PE/ hr}$$

where

AER= Allowable emission rate

MMR = Maximum Melt Rate (2.5 tons of aluminum per hour based on the maximum designed capacity of the equipment)

PEEF=the PE Emission factor (0.144 lb PE/ton of aluminum melted)(Based on 03/20/99 Emission Test of AEP source P001).

Since these limits reflect the potential emissions of this source, no additional compliance

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determination is required.

2. Emission Limitation:

AER= 1.58 tons PE per yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 1.58 \text{ tons PE /yr}$$

where

AER= Allowable emission rate (1.58 tons PE/yr)

HER = Hourly Emission Rate (0.36 lbs PE/hr)

AOH = the actual operating hours (Based on 8760 operating hours per year.)

CONV = conversion factor (1 ton/2000 lbs.)

Since these limits reflect the potential emissions of this source, no additional compliance determination is required (Combustion emissions included in PE emission factor).

3. Emission Limitation:

$$\text{AER} = 0.083 \text{ lbs CO/hr}$$

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{COEF}) = 0.083 \text{ lbs of CO per hr}$$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (6,590,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

COEF = CO Emission Factor (12.8 lb CO/10⁶ scf)(Based on 1/8/02 stack test of P043)

CO Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

4. Emission Limitation:

$$0.36 \text{ tons of CO/ yr}$$

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

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$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 0.36 \text{ tons of CO/ yr}$$

where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.083 lbs CO/hr)

AOH = the actual operating hours (Based on 8760 operating hours/ yr.)

CONV = conversion factor (1 ton/2000 lbs.)

CO Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

5. Emission Limitation:

0.65 lbs NO_x/hr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{NO}_x\text{EF}) = 0.65 \text{ lbs of NO}_x/\text{ hr}$$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (6,590,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

NO_xEF = NO_x Emission Factor (100 lb NO_x/10⁶ scf)(AP-42 Version 5. Table 1.4-1, 7/98)

NO_x Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

6. Emission Limitation:

2.83 tons of NO_x/ yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 2.83 \text{ tons of NO}_x/\text{ yr}$$

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where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.65 lbs NOx/hr)

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AOH = the actual operating hours (Based on 8760 operating hours per yr.)
 CONV = conversion factor (1 ton/2000 lbs.)

NO_x Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

7. Emission Limitation:

0.004 lbs SO_x/hr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{SO}_x\text{EF}) = 0.004 \text{ lbs of SO}_x/\text{hr}$$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (6,590,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

SO_xEF = SO_x Emission Factor (0.6 lb SO_x/10⁶ scf)(AP-42 Version 5. Table 1.4-2, 7/98)

SO_x Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

8. Emission Limitation:

0.02 tons of SO_x / yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 0.02 \text{ tons of SO}_x/\text{yr}$$

where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.004 lbs SO_x/hr)

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AOH = the actual operating hours (Based on 8760 operating hours per year.)
 CONV = conversion factor (1 ton/2000 lbs.)

SO_x Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

9. Emission Limitation:

0.04 lbs OC/ hr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{OCEF}) = 0.04 \text{ lbs of OC/ hr}$$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (6,590,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

OCEF = OC Emission Factor (5.5 lb OC/10⁶ scf)(AP-42 Version 5. Table 1.4-2, 7/98)

OC Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

10. Emission Limitation:

0.16 tons of OC/ yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 0.16 \text{ tons of OC/ yr}$$

where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.04 lbs OC/hr)

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AOH = the actual operating hours (Based on 8760 operating hours per year.)

CONV = conversion factor (1 ton/2000 lbs.)

OC Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

11. Emission Limitation:

0.008 lbs HF/hr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{MMR}) \times (\text{HF EF}) = 0.008 \text{ lb of HF/hr}$$

where

AER= Allowable emission rate

MMR = Maximum Melt Rate (2.5 tons of aluminum per hour based on the maximum designed capacity of the equipment)

HF EF=the HF Emission factor (0.003 lb HF/ton of aluminum melted)(SCC ID 3-04-001-09, Fire Database Version 6.23, 10/02).

Since these limits reflect the potential emissions of this source, no additional compliance determination is required.

12. Emission Limitation

0.033 tons HF/ yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 0.033 \text{ tons of HF/ yr}$$

where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.008 lbs HF/hr)

AOH = the actual operating hours (Based on 8760 operating hours per year.)

CONV = conversion factor (1 ton/2000 lbs.)

Since these limits reflect the potential emissions of this source, no additional compliance determination is required.

13. Emission Limitation:

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10% Opacity, as a six minute average, from the stack.

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Applicable Compliance Method:

If requested, 40 CFR Part 60, Method 9, with opacity readings taken from the stack.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P041 - HPDC Melt Furnace Number 3, rated @ 2.5 TPH (Modification)	OAC rule 3745-31-05	LIMIT(s)

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this emission unit was evaluated based on the actual materials and the design parameters of the emission units as specified in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxics Emissions" policy ("Air Toxics Policy") was applied for each pollutant emitted by this emission unit using data from the permit to install application and the SCREEN 3.0 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" usage for this pollutant.

Pollutant: Hydrogen Fluoride

Maximum Hourly Emission Rate: 0.01 lbs HF / hour, 0.05 tons HF/yr

Maximum Secondary Impact: 0.05 ug/m^3 based on 30 day average = (Maximum Impact x 0.18)

Secondary Standard: 0.50 ug/m^3 - 30 day average

2. Physical changes or changes in the method of operation of the emission unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxics 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 Toxics Policy" will be satisfied. If, upon evaluation, the permittee determines that the "Air Toxics Policy" will not be satisfied, the permittee will not make the change. Changes that affect the parameters used in applying the "Air Toxics Policy" include the following:
 - a. changes in the composition of the materials used (typically for coating 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 by the most recent version of the handbook entitled "American Governmental Industrial Hygienists (ACGIH)," than the lowest TLV previously modeled;
 - b. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any 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.).

If the permittee determines that the "Air Toxics 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.

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emission unit will satisfy the "Air Toxics 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

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satisfies the "Air Toxics Policy"; and,

- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxics Policy" for the change.

IV. Reporting Requirements

None

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V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P043 - HPDC Melt Furnace Number 4, rated @ 2.5 TPH (Modification)	OAC Rule 3745-31-05	0.36 lb Particulate Emissions (PE)/hr and 1.58 tons PE/yr; 0.083 lb Carbon Monoxide(CO)/hr and 0.36 tons CO/yr; 0.65 lb Nitrous Oxides(NOx)/hr and 2.83 tons NOx/yr; 0.004 lb Sulfur Oxides(SOx)/hr and 0.02 tons SOx/yr; 0.04 lb Organic Compounds(OC)/hr and 0.16 tons OC/yr; 0.008 lb Hydrogen Fluoride(HF)/hr and 0.033 tons HF/yr
	OAC rule 3745-31-05(A)(3)	10% Opacity, as a six minute average, from the stack.
	OAC 3745-17-07 (A)(1)	Less stringent than OAC rule 3745-31-05
	OAC rule 3745-17-11(B)(1)	Less stringent than OAC rule 3745-31-05 (A)(3)

2. Additional Terms and Conditions

- 2.a BAT will be demonstrated by using natural gas to melt aluminum and using good work

practices to minimize releases to the environment.

II. Operational Restrictions

1. The maximum throughput for (P043) HPDC Aluminum Melting Operation #4 shall not exceed 2.5 tons of aluminum per hour.
2. The permittee shall melt no materials other than clean charge and materials generated within the facility (or internal runaround).

III. Monitoring and/or Recordkeeping Requirements

1. No recordkeeping required. 2.5 tons of aluminum per hour represents the maximum designed capacity of the equipment.
2. No recordkeeping required. It is Honda of America's (HAM) practice to melt only aluminum ingot and in house scrap for aluminum melting operations.

IV. Reporting Requirements

None

V. Testing Requirements

Compliance with the emission limitation(s) in section A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):

1. Emission Limitation:

$$\text{AER} = 0.36 \text{ lb PE/ hr}$$

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{MMR}) \times (\text{PEEF}) = 0.36 \text{ lb of PE/ hr}$$

where

AER = Allowable emission rate

MMR = Maximum Melt Rate (2.5 tons of aluminum per hour based on the maximum designed capacity of the equipment)

PEEF=the PE Emission factor (0.144 lb PE/ton of aluminum melted)(Based on 03/20/99 Emission Test of AEP source P001).

Since these limits reflect the potential emissions of this source, no additional compliance determination is required.

2. Emission Limitation:

AER= 1.58 tons PE per yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 1.58 \text{ tons PE /yr}$$

where

AER= Allowable emission rate (1.58 tons PE/yr)

HER = Hourly Emission Rate (0.36 lbs PE/hr)

AOH = the actual operating hours (Based on 8760 operating hours per year.)

CONV = conversion factor (1 ton/2000 lbs.)

Since these limits reflect the potential emissions of this source, no additional compliance determination is required (Combustion emissions included in PE emission factor).

3. Emission Limitation:

$$\text{AER} = 0.083 \text{ lbs CO/hr}$$

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{COEF}) = 0.083 \text{ lbs of CO per hr}$$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (6,590,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

COEF = CO Emission Factor (12.8 lb CO/10⁶ scf)(Based on 1/8/02 stack test of P043)

CO Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

4. Emission Limitation:

$$0.36 \text{ tons of CO/ yr}$$

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

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$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 0.36 \text{ tons of CO/ yr}$$

where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.083 lbs CO/hr)

AOH = the actual operating hours (Based on 8760 operating hours/ yr.)

CONV = conversion factor (1 ton/2000 lbs.)

CO Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

5. Emission Limitation:

0.65 lbs NO_x/hr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{NO}_x\text{EF}) = 0.65 \text{ lbs of NO}_x/\text{ hr}$$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (6,590,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

NO_xEF = NO_x Emission Factor (100 lb NO_x/10⁶ scf)(AP-42 Version 5. Table 1.4-1, 7/98)

NO_x Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

6. Emission Limitation:

2.83 tons of NO_x/ yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 2.83 \text{ tons of NO}_x/\text{ yr}$$

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where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.65 lbs NO_x/hr)

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AOH = the actual operating hours (Based on 8760 operating hours per yr.)
 CONV = conversion factor (1 ton/2000 lbs.)

NO_x Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

7. Emission Limitation:

0.004 lbs SO_x/hr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{SO}_x\text{EF}) = 0.004 \text{ lbs of SO}_x/\text{hr}$$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (6,590,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

SO_xEF = SO_x Emission Factor (0.6 lb SO_x/10⁶ scf)(AP-42 Version 5. Table 1.4-2, 7/98)

SO_x Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

8. Emission Limitation:

0.02 tons of SO_x / yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 0.02 \text{ tons of SO}_x/\text{yr}$$

where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.004 lbs SO_x/hr)

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AOH = the actual operating hours (Based on 8760 operating hours per year.)
 CONV = conversion factor (1 ton/2000 lbs.)

SO_x Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

9. Emission Limitation:

0.04 lbs OC/ hr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{OCEF}) = 0.04 \text{ lbs of OC/ hr}$$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (6,590,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

OCEF = OC Emission Factor (5.5 lb OC/10⁶ scf)(AP-42 Version 5. Table 1.4-2, 7/98)

OC Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

10. Emission Limitation:

0.16 tons of OC/ yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 0.16 \text{ tons of OC/ yr}$$

where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.04 lbs OC/hr)

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AOH = the actual operating hours (Based on 8760 operating hours per year.)
CONV = conversion factor (1 ton/2000 lbs.)

OC Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

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11. Emission Limitation:

0.008 lbs HF/hr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{MMR}) \times (\text{HF EF}) = 0.008 \text{ lb of HF/hr}$$

where

AER= Allowable emission rate

MMR = Maximum Melt Rate (2.5 tons of aluminum per hour based on the maximum designed capacity of the equipment)

HF EF=the HF Emission factor (0.003 lb HF/ton of aluminum melted)(SCC ID 3-04-001-09, Fire Database Version 6.23, 10/02).

Since these limits reflect the potential emissions of this source, no additional compliance determination is required.

12. Emission Limitation

0.033 tons HF/ yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 0.033 \text{ tons of HF/ yr}$$

where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.008 lbs HF/hr)

AOH = the actual operating hours (Based on 8760 operating hours per year.)

CONV = conversion factor (1 ton/2000 lbs.)

Since these limits reflect the potential emissions of this source, no additional compliance determination is required.

13. Emission Limitation:

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Emissions Unit ID: P043

10% Opacity, as a six minute average, from the stack.

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Emissions Unit ID: P043

Applicable Compliance Method:

If requested, 40 CFR Part 60, Method 9, with opacity readings taken from the stack.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P043 - HPDC Melt Furnace Number 4, rated @ 2.5 TPH (Modification)	OAC rule 3745-31-05	LIMIT(s)

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

- The permit to install for this emission unit was evaluated based on the actual materials and the design parameters of the emission units as specified in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxics Emissions" policy ("Air Toxics Policy") was applied for each pollutant emitted by this emission unit using data from the permit to install application and the SCREEN 3.0 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" usage for this pollutant.

Pollutant: Hydrogen Fluoride

Maximum Hourly Emission Rate: 0.01 lbs HF / hour, 0.05 tons HF/yr

Emissions Unit ID: P043

Maximum Secondary Impact: 0.05 ug/m³ based on 30 day average = (Maximum Impact x 0.18)

Secondary Standard: 0.50 ug/m³ - 30 day average

2. Physical changes or changes in the method of operation of the emission unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxics 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 Toxics Policy" will be satisfied. If, upon evaluation, the permittee determines that the "Air Toxics Policy" will not be satisfied, the permittee will not make the change. Changes that affect the parameters used in applying the "Air Toxics Policy" include the following:
 - a. changes in the composition of the materials used (typically for coating 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 by the most recent version of the handbook entitled "American Governmental Industrial Hygienists (ACGIH)," than the lowest TLV previously modeled;
 - b. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any 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.).

If the permittee determines that the "Air Toxics 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.
3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emission unit will satisfy the "Air Toxics 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 Toxics Policy"; and,
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxics Policy" for the change.

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Emissions Unit ID: P043

IV. Reporting Requirements

None

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Emissions Unit ID: P043

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P060 - HPDC Melt Furnace Number 5, rated @ 3.3 TPH	OAC Rule 3745-31-05	0.48 lb Particulate Emissions (PE)/hr and 2.08 tons PE/yr; 0.104 lb Carbon Monoxide(CO)/hr and 0.455 tons CO/yr; 0.81 lb Nitrous Oxides(NOx)/hr and 3.55 tons NOx/yr; 0.005 lb Sulfur Oxides(SOx)/hr and 0.02 tons SOx/yr; 0.045 lb Organic Compounds(OC)/hr and 0.20 tons OC/yr; 0.01 lb Hydrogen Fluoride(HF)/hr and 0.043 tons HF/yr
	OAC rule 3745-31-05(A)(3)	10% Opacity, as a six minute average, from the stack.
	OAC 3745-17-07 (A)(1)	Less stringent than OAC rule 3745-31-05
	OAC rule 3745-17-11(B)(1)	Less stringent than OAC rule 3745-31-05 (A)(3)

2. Additional Terms and Conditions

- 2.a BAT will be demonstrated by using natural gas to melt aluminum and using good work

practices to minimize releases to the environment.

II. Operational Restrictions

1. The maximum throughput for (P060) ALDC Aluminum Melting Furnace #5 shall not exceed 3.3 tons of aluminum per hour.
2. The permittee shall melt no materials other than clean charge and materials generated within the facility (or internal runaround).

III. Monitoring and/or Recordkeeping Requirements

1. No recordkeeping required. 3.3 tons of aluminum per hour represents the maximum designed capacity of the equipment.
2. No recordkeeping required. It is Honda of America's (HAM) practice to melt only aluminum ingot and in house scrap for aluminum melting operations.

IV. Reporting Requirements

None

V. Testing Requirements

Compliance with the emission limitation(s) in section A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):

1. Emission Limitation:

$$\text{AER} = 0.48 \text{ lb PE/ hr}$$

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{MMR}) \times (\text{PEEF}) = 0.48 \text{ lb of PE/ hr}$$

where

AER= Allowable emission rate

MMR = Maximum Melt Rate (3.3 tons of aluminum per hour based on the maximum designed capacity of the equipment)

PEEF=the PE Emission factor (0.144 lb PE/ton of aluminum melted)(Based on 03/20/99 Emission Test of AEP source P001).

Since these limits reflect the potential emissions of this source, no additional compliance

determination is required.

2. Emission Limitation:

AER= 2.08 tons PE per yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 2.08 \text{ tons PE /yr}$$

where

AER= Allowable emission rate (2.08 tons PE/yr)

HER = Hourly Emission Rate (0.48 lbs PE/hr)

AOH = the actual operating hours (Based on 8760 operating hours per year.)

CONV = conversion factor (1 ton/2000 lbs.)

Since these limits reflect the potential emissions of this source, no additional compliance determination is required (Combustion emissions included in PE emission factor).

3. Emission Limitation:

$$\text{AER} = 0.104 \text{ lbs CO/hr}$$

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{COEF}) = 0.104 \text{ lbs of CO per hr}$$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (8,270,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

COEF = CO Emission Factor (12.8 lb CO/10⁶ scf)(Based on 1/8/02 stack test of P043)

CO Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

4. Emission Limitation:

$$0.455 \text{ tons of CO/ yr}$$

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

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$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 0.455 \text{ tons of CO/ yr}$$

where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.104 lbs CO/hr)

AOH = the actual operating hours (Based on 8760 operating hours/ yr.)

CONV = conversion factor (1 ton/2000 lbs.)

CO Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

5. Emission Limitation:

0.81 lbs NO_x/hr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{NO}_x\text{EF}) = 0.81 \text{ lbs of NO}_x/\text{ hr}$$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (8,270,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

NO_xEF = NO_x Emission Factor (100 lb NO_x/10⁶ scf)(AP-42 Version 5. Table 1.4-1, 7/98)

NO_x Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

6. Emission Limitation:

3.55 tons of NO_x/ yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 3.55 \text{ tons of NO}_x/\text{ yr}$$

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where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.81 lbs NOx/hr)

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AOH = the actual operating hours (Based on 8760 operating hours per yr.)
 CONV = conversion factor (1 ton/2000 lbs.)

NO_x Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

7. Emission Limitation:

0.005 lbs SO_x/hr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{SO}_x\text{EF}) = 0.005 \text{ lbs of SO}_x/\text{hr}$$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (8,270,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

SO_xEF = SO_x Emission Factor (0.6 lb SO_x/10⁶ scf)(AP-42 Version 5. Table 1.4-2, 7/98)

SO_x Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

8. Emission Limitation:

0.02 tons of SO_x / yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 0.02 \text{ tons of SO}_x/\text{yr}$$

where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.005 lbs SO_x/hr)

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AOH = the actual operating hours (Based on 8760 operating hours per year.)
 CONV = conversion factor (1 ton/2000 lbs.)

SO_x Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

9. Emission Limitation:

0.045 lbs OC/ hr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{OCEF}) = 0.045 \text{ lbs of OC/ hr}$$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (8,270,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

OCEF = OC Emission Factor (5.5 lb OC/10⁶ scf)(AP-42 Version 5. Table 1.4-2, 7/98)

OC Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

10. Emission Limitation:

0.20 tons of OC/ yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 0.20 \text{ tons of OC/ yr}$$

where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.045 lbs OC/hr)

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AOH = the actual operating hours (Based on 8760 operating hours per year.)

CONV = conversion factor (1 ton/2000 lbs.)

OC Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

11. Emission Limitation:

0.01 lbs HF/hr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{MMR}) \times (\text{HF EF}) = 0.01 \text{ lb of HF/ hr}$$

where

AER= Allowable emission rate

MMR = Maximum Melt Rate (3.3 tons of aluminum per hour based on the maximum designed capacity of the equipment)

HF EF=the HF Emission factor (0.003 lb HF/ton of aluminum melted)(SCC ID 3-04-001-09, Fire Database Version 6.23, 10/02).

Since these limits reflect the potential emissions of this source, no additional compliance determination is required.

12. Emission Limitation

0.043 tons HF/ yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 0.043 \text{ tons of HF/ yr}$$

where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.01 lbs HF/hr)

AOH = the actual operating hours (Based on 8760 operating hours per year.)

CONV = conversion factor (1 ton/2000 lbs.)

Since these limits reflect the potential emissions of this source, no additional compliance determination is required.

13. Emission Limitation:

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10% Opacity, as a six minute average, from the stack.

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Emissions Unit ID: P060

Applicable Compliance Method:

If requested, 40 CFR Part 60, Method 9, with opacity readings taken from the stack.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P060 - HPDC Melt Furnace Number 5, rated @ 3.3 TPH	OAC rule 3745-31-05	LIMIT(s)

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this emission unit was evaluated based on the actual materials and the design parameters of the emission units as specified in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxics Emissions" policy ("Air Toxics Policy") was applied for each pollutant emitted by this emission unit using data from the permit to install application and the SCREEN 3.0 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" usage for this pollutant.

Pollutant: Hydrogen Fluoride

Maximum Hourly Emission Rate: 0.01 lbs HF / hour, 0.05 tons HF/yr

Maximum Secondary Impact: 0.04 ug/m³ based on 30 day average = (Maximum Impact x 0.18)

Secondary Standard: 0.50 ug/m³ - 30 day average

2. Physical changes or changes in the method of operation of the emission unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxics 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 Toxics Policy" will be satisfied. If, upon evaluation, the permittee determines that the "Air Toxics Policy" will not be satisfied, the permittee will not make the change. Changes that affect the parameters used in applying the "Air Toxics Policy" include the following:
 - a. changes in the composition of the materials used (typically for coating 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 by the most recent version of the handbook entitled "American Governmental Industrial Hygienists (ACGIH)," than the lowest TLV previously modeled;
 - b. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any 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.).

If the permittee determines that the "Air Toxics 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.

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emission unit will satisfy the "Air Toxics 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 Toxics Policy"; and,

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- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxics Policy" for the change.

IV. Reporting Requirements

None

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V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P074 - HPDC Melt Furnace Number 6, rated @ 3.3 TPH (Modification)	OAC Rule 3745-31-05	0.48 lb Particulate Emissions (PE)/hr and 2.08 tons PE/yr; 0.104 lb Carbon Monoxide(CO)/hr and 0.455 tons CO/yr; 0.81 lb Nitrous Oxides(NOx)/hr and 3.55 tons NOx/yr; 0.005 lb Sulfur Oxides(SOx)/hr and 0.02 tons SOx/yr; 0.045 lb Organic Compounds(OC)/hr and 0.20 tons OC/yr; 0.01 lb Hydrogen Fluoride(HF)/hr and 0.043 tons HF/yr
	OAC rule 3745-31-05(A)(3)	10% Opacity, as a six minute average, from the stack.
	OAC 3745-17-07 (A)(1)	Less stringent than OAC rule 3745-31-05
	OAC rule 3745-17-11(B)(1)	Less stringent than OAC rule 3745-31-05 (A)(3)

2. Additional Terms and Conditions

- 2.a BAT will be demonstrated by using natural gas to melt aluminum and using good work

practices to minimize releases to the environment.

II. Operational Restrictions

1. The maximum throughput for (P074) HPDC Aluminum Melting Furnace #6 shall not exceed 3.3 tons of aluminum per hour.
2. The permittee shall melt no materials other than clean charge and materials generated within the facility (or internal runaround).

III. Monitoring and/or Recordkeeping Requirements

1. No recordkeeping required. 3.3 tons of aluminum per hour represents the maximum designed capacity of the equipment.
2. No recordkeeping required. It is Honda of America's (HAM) practice to melt only aluminum ingot and in house scrap for aluminum melting operations.

IV. Reporting Requirements

None

V. Testing Requirements

Compliance with the emission limitation(s) in section A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):

1. Emission Limitation:

$$\text{AER} = 0.48 \text{ lb PE/ hr}$$

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{MMR}) \times (\text{PEEF}) = 0.48 \text{ lb of PE/ hr}$$

where

AER = Allowable emission rate

MMR = Maximum Melt Rate (3.3 tons of aluminum per hour based on the maximum designed capacity of the equipment)

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PEEF=the PE Emission factor (0.144 lb PE/ton of aluminum melted)(Based on 03/20/99 Emission Test of AEP source P001).

Since these limits reflect the potential emissions of this source, no additional compliance determination is required.

2. Emission Limitation:

AER= 2.08 tons PE per yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 2.08 \text{ tons PE /yr}$$

where

AER= Allowable emission rate (2.08 tons PE/yr)

HER = Hourly Emission Rate (0.48 lbs PE/hr)

AOH = the actual operating hours (Based on 8760 operating hours per year.)

CONV = conversion factor (1 ton/2000 lbs.)

Since these limits reflect the potential emissions of this source, no additional compliance determination is required (Combustion emissions included in PE emission factor).

3. Emission Limitation:

$$\text{AER} = 0.104 \text{ lbs CO/hr}$$

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{COEF}) = 0.104 \text{ lbs of CO per hr}$$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (8,270,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

COEF = CO Emission Factor (12.8 lb CO/10⁶ scf)(Based on 1/8/02 stack test of P043)

CO Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

4. Emission Limitation:

$$0.455 \text{ tons of CO/ yr}$$

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

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$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 0.455 \text{ tons of CO/ yr}$$

where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.104 lbs CO/hr)

AOH = the actual operating hours (Based on 8760 operating hours/ yr.)

CONV = conversion factor (1 ton/2000 lbs.)

CO Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

5. Emission Limitation:

0.81 lbs NO_x/hr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{NO}_x\text{EF}) = 0.81 \text{ lbs of NO}_x/\text{ hr}$$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (8,270,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

NO_xEF = NO_x Emission Factor (100 lb NO_x/10⁶ scf)(AP-42 Version 5. Table 1.4-1, 7/98)

NO_x Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

6. Emission Limitation:

3.55 tons of NO_x/ yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 3.55 \text{ tons of NO}_x/\text{ yr}$$

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where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.81 lbs NO_x/hr)

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AOH = the actual operating hours (Based on 8760 operating hours per yr.)
 CONV = conversion factor (1 ton/2000 lbs.)

NO_x Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

7. Emission Limitation:

0.005 lbs SO_x/hr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{SO}_x\text{EF}) = 0.005 \text{ lbs of SO}_x/\text{hr}$$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (8,270,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

SO_xEF = SO_x Emission Factor (0.6 lb SO_x/10⁶ scf)(AP-42 Version 5. Table 1.4-2, 7/98)

SO_x Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

8. Emission Limitation:

0.02 tons of SO_x / yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 0.02 \text{ tons of SO}_x/\text{yr}$$

where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.005 lbs SO_x/hr)

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AOH = the actual operating hours (Based on 8760 operating hours per year.)
 CONV = conversion factor (1 ton/2000 lbs.)

SO_x Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

9. Emission Limitation:

0.045 lbs OC/ hr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{BBTU}) \times (1/\text{BCONV}) \times (\text{OCEF}) = 0.045 \text{ lbs of OC/ hr}$$

where

AER= Allowable emission rate

BBTU = Burner BTU/hr (8,270,000 BTU/hr)

BCONV = BTU to scf conversion factor (1020 BTU/scf)

OCEF = OC Emission Factor (5.5 lb OC/10⁶ scf)(AP-42 Version 5. Table 1.4-2, 7/98)

OC Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

10. Emission Limitation:

0.20 tons of OC/ yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 0.20 \text{ tons of OC/ yr}$$

where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.045 lbs OC/hr)

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AOH = the actual operating hours (Based on 8760 operating hours per year.)
CONV = conversion factor (1 ton/2000 lbs.)

OC Emissions are generated solely by the combustion of natural gas. These limits represent the maximum capacity of the burners. Since these limits reflect the potential emissions of the burners, no additional compliance determination is required

11. Emission Limitation:

0.01 lbs HF/hr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{MMR}) \times (\text{HF EF}) = 0.01 \text{ lb of HF/hr}$$

where

AER= Allowable emission rate

MMR = Maximum Melt Rate (3.3 tons of aluminum per hour based on the maximum designed capacity of the equipment)

HF EF=the HF Emission factor (0.003 lb HF/ton of aluminum melted)(SCC ID 3-04-001-09, Fire Database Version 6.23, 10/02).

Since these limits reflect the potential emissions of this source, no additional compliance determination is required.

12. Emission Limitation

0.043 tons HF/ yr

Applicable Compliance Method:

Compliance shall be assumed based on the following calculation:

$$\text{AER} = (\text{HER}) \times (\text{AOH}) \times (\text{CONV}) = 0.043 \text{ tons of HF/ yr}$$

where

AER= Allowable emission rate

HER = Hourly Emission Rate (0.01 lbs HF/hr)

AOH = the actual operating hours (Based on 8760 operating hours per year.)

CONV = conversion factor (1 ton/2000 lbs.)

Since these limits reflect the potential emissions of this source, no additional compliance determination is required.

13. Emission Limitation:

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10% Opacity, as a six minute average, from the stack.

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Applicable Compliance Method:

If requested, 40 CFR Part 60, Method 9, with opacity readings taken from the stack.

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P074 - HPDC Melt Furnace Number 6, rated @ 3.3 TPH (Modification)	OAC rule 3745-31-05	LIMIT(s)

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this emission unit was evaluated based on the actual materials and the design parameters of the emission units as specified in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxics Emissions" policy ("Air Toxics Policy") was applied for each pollutant emitted by this emission unit using data from the permit to install application and the SCREEN 3.0 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" usage for this pollutant.

Pollutant: Hydrogen Fluoride

Maximum Hourly Emission Rate: 0.01 lbs HF / hour, 0.05 tons HF/yr

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Maximum Secondary Impact: 0.04 ug/m³ based on 30 day average = (Maximum Impact x 0.18)

Secondary Standard: 0.50 ug/m³ - 30 day average

2. Physical changes or changes in the method of operation of the emission unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxics 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 Toxics Policy" will be satisfied. If, upon evaluation, the permittee determines that the "Air Toxics Policy" will not be satisfied, the permittee will not make the change. Changes that affect the parameters used in applying the "Air Toxics Policy" include the following:
 - a. changes in the composition of the materials used (typically for coating 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 by the most recent version of the handbook entitled "American Governmental Industrial Hygienists (ACGIH)," than the lowest TLV previously modeled;
 - b. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any 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.).

If the permittee determines that the "Air Toxics 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.
3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emission unit will satisfy the "Air Toxics 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 Toxics Policy"; and,
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxics Policy" for the change.

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IV. Reporting Requirements

None

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V. Testing Requirements

None

VI. Miscellaneous Requirements

None