



PERMIT TO OPERATE

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to operate the air contaminant source(s) described below, in accordance with the laws, rules, and conditions set forth here in.

Operating Permit Number: OP2008-027
Expiration Date: May 29, 2013
Installation ID: 009-0005
Project Number: 2003-01-005

Installation Name and Address

Hydro Aluminum Metal Products
120 Industrial Drive
Monett, Missouri 65708
Barry County

Parent Company's Name and Address

Hydro Aluminum North America
801 International Drive, Suite 200
Linthicum, MD 21090-2254

Installation Description:

Hydro Aluminum North America's operations in Barry County include secondary aluminum production and aluminum extrusion and painting. For purposes of permitting, two operating permits will regulate the installation. This permit includes the secondary aluminum production operations referred to as Hydro Aluminum Metal Products.

MAY 28 2008

Effective Date

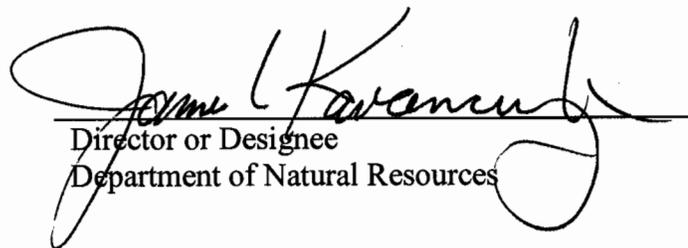

Director or Designee
Department of Natural Resources

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I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

Hydro Aluminum North America's operations include secondary aluminum production and aluminum extrusion and painting in Barry County. For purposes of permitting, two operating permits will regulate the installation. This permit includes the secondary aluminum production operations referred to as Hydro Aluminum Metal Products.

The installation is an existing major source of nitrogen oxides (NO_x), volatile organic compounds (VOCs) and hazardous air pollutants (HAPs).

Reported Air Pollutant Emissions, tons per year							
Year	Particulate Matter ≤ Ten Microns (PM ₁₀)	Sulfur Oxides (SO _x)	Nitrogen Oxides (NO _x)	Volatile Organic Compounds (VOC)	Carbon Monoxide (CO)	Lead (Pb)	Hazardous Air Pollutants (HAPs)
2002	6.57	0.23	62.78	142.57	22.57	--	--
2003	4.26	0.22	46.04	132.99	17.29	--	--
2004	7.69	0.92	19.44	114.42	19.19	--	--
2005	8.41	0.98	10.95	139.80	18.70	--	4.91
2006	6.86	0.83	22.83	108.68	18.37	--	4.02

* These emissions were generated by a combination of the emission units in this installation and the extrusion and painting installation.

EMISSION UNITS WITH LIMITATIONS

The following list provides a description of the equipment at this installation, which emit air pollutants and which are identified as having unit-specific emission limitations.

Emission Unit #	Description of Emission Unit
EU0010	Aluminum Melting Furnace #1
EU0020	Aluminum Melting Furnace #2
EU0030	Holding Furnace
EU0040	Casting Pit Fugitives
EU0050	East Homogenizing Furnace
EU0060	West Homogenizing Furnace

EMISSION UNITS WITHOUT LIMITATIONS

The following list provides a description of the equipment that does not have unit specific limitations at the time of permit issuance.

Description of Emission Source
Dross room
300-gallon gasoline storage tank
200-gallon kerosene storage tank
500-gallon diesel storage tank
500-gallon hydraulic oil storage tank

Dross Press
Billet saws
Wood saws for wood spacers and bundlers
Cutback saws (aluminum)
Two maintenance parts degreaser (Stoddard solvent)
55-gallon oil drum
Electric graphite insert oven (installed 1987)
Acetylene torches
Cooling towers
Boron Nitride Spray

DOCUMENTS INCORPORATED BY REFERENCE

These documents have been incorporated by reference into this permit.

- 1) Air Pollution Control Program Permit to Construct No.1087-006A, Superseded by CP 0197-017
- 2) Air Pollution Control Program Permit to Construct No.0197-017
- 3) Air Pollution Control Program Permit to Construct No.1297-010
- 4) Air Pollution Control Program Permit to Construct No.032000-002, Superseded by CP 032000-002A
- 5) Air Pollution Control Program Permit to Construct No.032000-002A
- 6) Air Pollution Control Program Permit to Construct No.032000-017
- 7) Air Pollution Control Program Permit to Construct No.102001-013, never utilized
- 8) Air Pollution Control Program Permit to Construct No.072003-009

II. Plant Wide Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements.

Permit Condition PW001

10 CSR 10-6.060

Construction Permits Required

Air Pollution Control Program Permit to Construct Number 0197-017

Air Pollution Control Program Permit to Construct Number 1297-010

Emission Limitation:

Conditions 1 and 2. If a continuing situation of demonstrated nuisance odors exists in violation of Missouri State Rule, 10 CSR 10-3.090, Restriction of Emission of Odors, the Director may require the permittee to submit a corrective action plan within ten days adequate to timely and significantly mitigate odors. The permittee shall implement any such plan immediately upon its approval by the Director. Failure to either submit or implement such a plan shall be a violation of this permit.

Monitoring/Recordkeeping/Reporting:

The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

Permit Condition PW002

10 CSR 10-6.060

Construction Permits Required

Air Pollution Control Program Permit to Construct Number 1297-010

Emission Limitation:

Condition 1. If the presence of particulate matter less than ten microns (PM₁₀) in the ambient air exists in quantities and durations that directly or proximately cause or contribute to injury to human, plant or animal life or health, or to property, or that unreasonably interferes with the enjoyment of life or use of property, the Director may require the permittee to submit a corrective action plan within ten days adequate to timely and significantly mitigate the emission of PM₁₀. The permittee shall implement any such plan immediately upon its approval by the Director. Failure to either submit or implement such a plan shall be a violation of the permit.

Monitoring/Recordkeeping/Reporting:

The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

III. Emission Unit Specific Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements.

EU0010 through EU0030 Aluminum Melting Furnace #1 Aluminum Melting Furnace #2 Holding Furnace			
Emission Unit	Description	Manufacturer	2005 EIQ Reference #
EU0010	Furnace used for melting aluminum scrap at a maximum of 11.333 tons per hour; Equipped with two 22.5 MMBtu/hr low-NO _x burners and one 13 MMBtu hi-ram burner; Burners installed in 2000; Furnace originally installed in 1970.	Warwick	EP-01
EU0020	Furnace used for melting aluminum scrap at a maximum rate of 11.333 tons per hour; Equipped two 22.5 MMBtu/hr low-NO _x burners and one 13 MMBtu hi-ram burner; Installed in 1987.	Hydro Aluminum	EP-02
EU0030	Furnace used for final alloying and for making additional adjustments to ensure that the molten metal meets product specifications at a maximum rate of 11.96 tons per hour; Equipped with two 4.89 MMBtu/hr burners; Installed in 1970.	Warwick	EP-03

Permit Condition (EU0010 through EU0030)-001
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations 40 CFR Part 63 Subpart RRR National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production 40 CFR Part 63 Subpart A General Provisions 10 CSR 10-6.400 Restrictions of Emissions of Particulate Matter from Industrial Processes

Emission Limitation:

- 1) The permittee shall not emit particulate matter in excess of 20.85 lbs/hr from each of emission units EU0010 and EU0020. [10 CSR 10-6.400 (3)(A)1.]
- 2) The permittee shall not emit particulate matter in excess of 21.62 lbs/hr from emission unit EU0030. [10 CSR 10-6.400 (3)(A)1.]
- 3) The concentration of particulate matter in the exhaust gases from each emission unit shall not exceed 0.30 grain per standard cubic feet. [10 CSR 10-6.400 (3)(A)4.]

- 4) The owner or operator of a group 1 furnace that is not processing only clean charge material (EU0010 through EU0030) must use the following limits to determine the emission limitation for a Secondary Aluminum Processing Unit (SAPU)¹ :
 - a) 0.20 kg of PM per Mg of feed/charge (0.40 lb per ton) [40 CFR 63.1505(i)(1)]
 - b) 15 microgram (μg) of D/F TEQ² per Mg of feed/charge (2.1×10^{-4} grains per ton) [40 CFR 63.1505(i)(3)]
 - c) 0.20 kg of HCl per Mg of feed/charge (0.40 lb/ton) [40 CFR 63.1505(i)(4)]
- 5) The permittee must not discharge or allow to be discharged to the atmosphere any three day, 24-hour rolling average emissions of total particulate material (PM) from Emission Units EU0010 through EU0030, combined, in excess of 0.20 kg of PM per Mg of feed/charge (0.40 lb/ton). [40 CFR 63.1505(k)(1)]
- 6) The permittee must not discharge or allow to be discharged to the atmosphere any three day, 24-hour rolling average emissions of HCl from emission units EU0010 through EU0030 in excess of 0.20 kg of HCl per Mg of feed/charge (0.40 lb/ton). [40 CFR 63.1505(k)(2)]
- 7) The permittee must not discharge or allow to be discharged to the atmosphere any three day, 24-hour rolling average emissions of dioxins and furans (D/F) from emission units EU0010 through EU0030 in excess of 15 microgram (μg) of D/F TEQ³ per Mg of feed/charge (2.1×10^{-4} grains per ton). [40 CFR 63.1505(k)(3)]
- 8) The permittee may determine the emission standards for a SAPU by applying the group 1 furnace limits on the basis of the aluminum production weight in each group 1 furnace, rather than on the basis of feed/charge. [40 CFR 63.1505(i)(6)]
- 9) The permittee may demonstrate compliance with the emission limits of 40 CFR 63.1505(k)(1) though (3) of this section by demonstrating that each emission unit within the SAPU is in compliance with the applicable emission limits of 40 CFR 63.1505(i). [40 CFR 63.1505(k)(4)]

Performance Testing:

- 1) Prior to conducting any performance test required by this subpart, the permittee must prepare a site-specific test plan which satisfies all of the requirements, and must obtain approval of the plan pursuant to the procedures, set forth in § 63.7(c). [40 CFR 63.1511(a)]
- 2) Following approval of the site-specific test plan, the permittee must demonstrate initial compliance with each applicable emission, equipment, work practice, or operational standard for each affected source and emission unit, and report the results in the notification of compliance status report as described in § 63.1515(b). The permittee must conduct this initial performance test no later than the date for compliance established by § 63.1501(a). Except for the date by which the performance test must be conducted, the permittee must conduct each performance test in accordance with the requirements and procedures set forth in 40 CFR 63.7(c). [40 CFR 63.1511(b)]
 - a) The permittee must conduct each test while the affected source or emission unit is operating at the highest production level with charge materials representative of the range of materials processed by the unit and, if applicable, at the highest reactive fluxing rate. [40 CFR 63.1511(b)(1)]
 - b) Each performance test for a continuous process must consist of three separate runs; pollutant sampling for each run must be conducted for the time period specified in the applicable method or, in the absence of a specific time period in the test method, for a minimum of three hours. [40 CFR 63.1511(b)(2)]
 - c) Each performance test for a batch process must consist of three separate runs; pollutant sampling for each run must be conducted over the entire process operating cycle. [40 CFR 63.1511(b)(3)]
 - d) Where multiple affected sources or emission units are exhausted through a common stack, pollutant sampling for each run must be conducted over a period of time during which all affected sources or

¹A Secondary Aluminum Processing Unit (SAPU) is defined as all group 1 furnaces and in-line fluxers within a secondary aluminum production facility. Each group 1 furnace or in-line fluxer is considered an emission unit within a SAPU. [40 CFR 63.1503]

² TEQ is defined as the international method of expressing toxicity equivalent for dioxins and furans as defined in “Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and –Dibenzofurans (CDDs and CDFs) and 1989 Update” (EPA-625/389-016). [40 CFR 63.1503]

- emission units complete at least one entire process operating cycle or for 24 hours, whichever is shorter. [40 CFR 63.1511(b)(4)]
- e) Initial compliance with an applicable emission limit or standard is demonstrated if the average of three runs conducted during the performance test is less than or equal to the applicable emission standard. [40 CFR 63.1511(b)(5)]
- 3) The permittee must use the following methods in appendix A to 40 CFR part 60 to determine compliance with the applicable emission limits or standards:
- a) Method 1 for sample and velocity traverses. [40 CFR 63.1511(c)(1)]
 - b) Method 2 for velocity and volumetric flow rate. [40 CFR 63.1511(c)(2)]
 - c) Method 3 for gas analysis. [40 CFR 63.1511(c)(3)]
 - d) Method 4 for moisture content of the stack gas. [40 CFR 63.1511(c)(4)]
 - e) Method 5 for the concentration of PM. [40 CFR 63.1511(c)(5)]
 - f) Method 9 for visible emission observations. [40 CFR 63.1511(c)(6)]
 - g) Method 23 for the concentration of D/F. [40 CFR 63.1511(c)(7)]
 - h) Method 25A for the concentration of THC, as propane. [40 CFR 63.1511(c)(8)]
 - i) Method 26A for the concentration of HCl. [40 CFR 63.1511(c)(9)]
- 4) The permittee may use an alternative test method, subject to approval by the Administrator. [40 CFR 63.1511(d)]
- 5) The permittee must conduct a performance test every five years following the initial performance test. [40 CFR 63.1511(e)]
- 6) With the prior approval of the permitting authority, the permittee may utilize emission rates obtained by testing a particular type of group 1 furnace which is not controlled by any add-on control device to determine the emission rate for other units of the same type at the same facility. Such emission test results may only be considered to be representative of other units if all of the following criteria are satisfied:
- a) The tested emission unit must use feed materials and charge rates which are comparable to the emission units that it represents; [40 CFR 63.1511(f)(1)]
 - b) The tested emission unit must use the same type of flux materials in the same proportions as the emission units it represents; [40 CFR 63.1511(f)(2)]
 - c) The tested emission unit must be operated utilizing the same work practices as the emission units that it represents; [40 CFR 63.1511(f)(3)]
 - d) The tested emission unit must be of the same design as the emission units that it represents; and [40 CFR 63.1511(f)(4)]
 - e) The tested emission unit must be tested under the highest load or capacity reasonably expected to occur for any of the emission units that it represents. [40 CFR 63.1511(f)(5)]
- 7) The permittee must establish a minimum or maximum operating parameter value, or an operating parameter range for each parameter to be monitored as required by § 63.1510 that ensures compliance with the applicable emission limit or standard. To establish the minimum or maximum value or range, the permittee must use the appropriate procedures in this section and submit the information required by § 63.1515(b)(4) in the notification of compliance status report. The permittee may use existing data in addition to the results of performance tests to establish operating parameter values for compliance monitoring provided each of the following conditions are met to the satisfaction of the applicable permitting authority:
- a) The complete emission test report(s) used as the basis of the parameter(s) is submitted. [40 CFR 63.1511(g)(1)]
 - b) The same test methods and procedures as required by this subpart were used in the test. [40 CFR 63.1511(g)(2)]
 - c) The permittee certifies that no design or work practice changes have been made to the source, process, or emission control equipment since the time of the report. [40 CFR 63.1511(g)(3)]
 - d) All process and control equipment operating parameters required to be monitored were monitored as required in this subpart and documented in the test report. [40 CFR 63.1511(g)(4)]
- 8) In the site-specific monitoring plan required by § 63.1510(o), the permittee must include data and information demonstrating compliance with the applicable emission limits. [40 CFR 63.1512(e)]

- a) The permittee must conduct emission tests to measure emissions of PM, HCl, and D/F at the furnace exhaust outlet. [40 CFR 63.1512(e)(1)]
- b) The permittee may choose to determine the rate of reactive flux addition to the group 1 furnace and assume, for the purposes of demonstrating compliance with the SAPU emission limit, that all reactive flux added to the group 1 furnace is emitted. Under these circumstances, the permittee is not required to conduct an emission test for HCl. [40 CFR 63.1512(e)(3)]
- 9) For the SAPU (EU0010 through EU0030), the permittee must conduct performance tests as described in 40 CFR 63.1512(j)(1) – j(3). The results of the performance tests are used to establish emission rates in lb/ton of feed/charge for PM and HCl and μg TEQ/Mg of feed/charge for D/F emissions from each emission unit. These emission rates are used for compliance monitoring in the calculation of the three-day, 24-hour rolling average emission rates using the equation in 40 CFR 63.1510(t). A performance test is required for each group 1 furnace that processes scrap other than clean charge (EU0010 through EU0030) to measure emissions of PM, HCl and D/F. [40 CFR 63.1512(j)(2)] & [40 CFR 63.1512(j)(2)(i)]
- 10) During the emission test(s) conducted to determine compliance with emission limits in a kg/Mg (lb/ton) format, the permittee must measure (or otherwise determine) and record the total weight of feed/charge to the affected source or emission unit for each of the three test runs and calculate and record the total weight. If compliance is demonstrated on the basis of the aluminum production weight, then the weight of aluminum produced by the emission unit or affected source must be measured instead of the feed/charge weight. [40 CFR 63.1512(k)]
- 11) The permittee must use these procedures to establish an operating parameter value or range for the total reactive chlorine flux injection rate. [40 CFR 63.1512(o)]
 - a) Continuously measure and record the weight of gaseous or liquid reactive flux injected for each 15 minute period during the HCl and D/F tests, determine and record the 15-minute block average weights, and calculate and record the total weight of the gaseous or liquid reactive flux for the three test runs; [40 CFR 63.1512(o)(1)]
 - b) Record the identity, composition, and total weight of each addition of solid reactive flux for the three test runs; [40 CFR 63.1512(o)(2)]
 - c) Determine the total reactive chlorine flux injection rate by adding the recorded measurement of the total weight of chlorine in the gaseous or liquid reactive flux injected and the total weight of chlorine in the solid reactive flux using the following equation: [40 CFR 63.1512(o)(3)]
$$W_t = F_1W_1 + F_2W_2$$
Where,
 W_t = Total chlorine usage, by weight;
 F_1 = Fraction of gaseous or liquid flux that is chlorine;
 W_1 = Weight of reactive flux gas injected;
 F_2 = Fraction of solid reactive chloride flux that is chlorine (*e.g.*, $F = 0.75$ for magnesium chloride);
and W_2 = Weight of solid reactive flux;
 - d) Divide the weight of total chlorine usage (W_t) for the three test runs by the recorded measurement of the total weight of feed for the three test runs; and [40 CFR 63.1512(o)(4)]
 - e) If a solid reactive flux other than magnesium chloride is used, the permittee must derive the appropriate proportion factor subject to approval by the applicable permitting authority. [40 CFR 63.1512(o)(5)]
- 12) Use the following equation to determine compliance with an emission limit for PM, HCl, and D/F:

$$E = \frac{C \times Q \times K_1}{P} \quad [40 \text{ CFR } 63.1513(b)]$$

Where,

E = Emission rate of PM, HCl, or D/F, kg/Mg (lb/ton) of feed;
C = Concentration of PM, HCl, or D/F, g/dscm (gr/dscf);
Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr);
 K_1 = Conversion factor, 1 kg/1,000 g (1 lb/7,000 gr); and
P = Production rate, Mg/hr (ton/hr).

- 13) To convert D/F measurements to TEQ units, the permittee must use the procedures and equations in "Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-Dioxins and -Dibenzofurans (CDDs and CDFs) and 1989 Update" (EPA-625/3-89-016), incorporated by reference in § 63.1502 of subpart RRR, available from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia, NTIS no. PB 90-145756. [40 CFR 63.1513(d)]
- 14) Use the following equation to compute the mass-weighted PM emissions for a secondary aluminum processing unit (EU0010 through EU0030). Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit (E_{cPM}) is less than or equal to the emission limit for the secondary aluminum processing unit (L_{cPM}) calculated using Equation 1 in 40 CFR 63.1505(k).

$$E_{cPM} = \frac{\sum_{i=1}^n (E_{tiPM} \times T_{ti})}{\sum_{i=1}^n (T_{ti})} \quad [40 \text{ CFR } 63.1513(e)(1)]$$

Where,

E_{cPM} = The mass-weighted PM emissions for the secondary aluminum processing unit;

E_{tiPM} = Measured PM emissions for individual emission unit i;

T_{ti} = The average feed rate for individual emission unit i during the operating cycle or performance test period;

n=The number of emission units in the secondary aluminum processing unit.

- 15) Use the following equation to compute the aluminum mass-weighted HCl emissions for the secondary aluminum processing unit (EU0010 through EU0030). Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit (E_{cHCl}) is less than or equal to the emission limit for the secondary aluminum processing unit (L_{cHCl}) calculated using Equation 2 in 40 CFR 63.1505(k).

$$E_{cHCl} = \frac{\sum_{i=1}^n (E_{tiHCl} \times T_{ti})}{\sum_{i=1}^n (T_{ti})} \quad [40 \text{ CFR } 63.1513(e)(2)]$$

Where,

E_{cHCl} = The mass-weighted HCl emissions for the secondary aluminum processing unit; and

E_{tiHCl} = Measured HCl emissions for individual emission unit i.

- 16) Use the following equation to compute the aluminum mass-weighted D/F emissions for the secondary aluminum processing unit (EU0010 through EU0030). Compliance is achieved if the mass-weighted emissions for the secondary aluminum processing unit is less than or equal to the emission limit for the secondary aluminum processing unit ($L_{cD/F}$) calculated using Equation 3 in 40 CFR 63.1505(k).

$$E_{cD/F} = \frac{\sum_{i=1}^n (E_{tiD/F} \times T_{ti})}{\sum_{i=1}^n (T_{ti})} \quad [40 \text{ CFR } 63.1513(e)(3)]$$

Where,

$E_{cD/F}$ = The mass-weighted D/F emissions for the secondary aluminum processing unit; and

$E_{tiD/F}$ = Measured D/F emissions for individual emission unit i.

- 17) As an alternative to using the equations in 40 CFR 63.1513(e)(1), (e)(2) and (e)(3), the permittee may demonstrate compliance for a secondary aluminum processing unit by demonstrating that each existing group 1 furnace (EU0010 through EU0030) is in compliance with the emission limits for a new group 1 furnace in 40 CFR 63.1505(i). [40 CFR 63.1513(e)(4)]

Equipment and Operating Parameters:

- 1) On and after the compliance date established by 40 CFR 63.1501, the permittee must operate all new and existing affected sources and control equipment according to the requirements in 40 CFR 63.1506.
[40 CFR 63.1506(a)(1)]
- 2) The permittee must provide and maintain easily visible labels posted at each group 1 furnace (EU0010 through EU0030) that identifies the applicable emission limits and means of compliance, including:
 - a) The type of affected source or emission unit (*e.g.* group 1 furnace) [40 CFR 63.1506(b)(1)]
 - b) The applicable operational standard(s) and control method(s) (work practice or control device). This includes but is not limited to, the type of charge to be used for a furnace (*e.g.* clean scrap only, all scrap, etc.), flux materials and addition practices, and the applicable operating parameter ranges and requirements as incorporated by the OM&M plan. [40 CFR 63.1506(b)(2)]
- 3) The permittee must:
 - a) Except as provided in paragraph c) below, install and operate a device that measures and records or otherwise determines the weight of feed/charge (or throughput) for each operating cycle or time period used in the performance test. [40 CFR 63.1506(d)(1)]
 - b) Operate each weight measurement system or other weight determination procedure in accordance with the OM&M plan. [40 CFR 63.1506(d)(2)]
 - c) The permittee may choose to measure and record aluminum production weight from an affected source or emission unit rather than feed/charge weight to an affected source or emission unit, provided that:
 - i) The aluminum production weight, rather than feed/charge weight is measured and recorded for all emission units within a SAPU. [40 CFR 63.1506(d)(3)(i)]
 - ii) All calculations to demonstrate compliance with the emission limits for SAPUs are based on aluminum production weight rather than feed/charge weight. [40 CFR 63.1506(d)(3)(ii)]
- 4) For each group 1 furnace without air pollution control devices (EU0010 through EU0030), the permittee must:
 - a) Maintain the total reactive flux injection rate for each operating cycle or time period used in the performance test at or below the average rate established during the performance test. [63.1506(n)(1)]
 - b) Operate each furnace in accordance with the work practice/pollution prevention measures documented in the OM&M plan and within the parameter values or ranges established in the OM&M plan. [63.1506(n)(2)]
- 5) When a process parameter or add-on air pollution control device operating parameter deviates from the value or range established during the performance test and incorporated in the OM&M plan, the permittee must initiate corrective action. Corrective action must restore operation of the affected source or emission unit (including the process or control device) to its normal or usual mode of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. Corrective actions taken must include follow-up actions necessary to return the process or control device parameter level(s) to the value or range of values established during the performance test and steps to prevent the likely recurrence of the cause of a deviation. [40 CFR 63.1506(p)]

Monitoring:

- 1) On and after the compliance date established by 40 CFR 63.1501 the permittee must monitor all control equipment and processes according to the requirements of 40 CFR §63.1510. Monitoring requirements for each type of affected source and emission unit are summarized in Table 3 to Subpart RRR. [40 CFR 63.1510(a)]
- 2) The permittee must prepare and implement for each new or existing affected source and emission unit, a written operation, maintenance, and monitoring (OM&M) plan. [40 CFR 63.1510(b)]
 - a) The permittee must submit the OM&M plan to the responsible permitting authority no later than the compliance date established by 40 CFR 63.1501(a).
 - b) The plan must be accompanied by a written certification by the permittee that the OM&M plan satisfies all requirements of this section and is otherwise consistent with the requirements of Subpart RRR.
 - c) The permittee must comply with all of the provisions of the OM&M plan as submitted to the permitting authority, unless and until the plan is revised in accordance with the following procedures.

- d) If the permitting authority determines at any time after receipt of the OM&M plan that any revisions of the plan are necessary to satisfy the requirements of section 63.1510 or Subpart RRR, the permittee must promptly make all necessary revisions and resubmit the revised plan.
- e) If the permittee determines that any other revisions of the OM&M plan are necessary, such revisions will not become effective until the permittee submits a description of the changes and a revised plan incorporating them to the permitting authority.
- f) Each plan must contain the following information:
 - i) Process and control device parameters to be monitored to determine compliance, along with established operating levels or ranges, as applicable, for each process and control device. [40 CFR 63.1510(b)(1)]
 - ii) A monitoring schedule for each affected source and emission unit. [40 CFR 63.1510(b)(2)]
 - iii) Procedures for the proper operation and maintenance of each process unit and add-on control device used to meet the applicable emission limits or standards in § 63.1505. [40 CFR 63.1510(b)(3)]
 - iv) Procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including:
 - (1) Calibration and certification of accuracy of each monitoring device, at least once every six months, according to the manufacturer's instructions; and [40 CFR 63.1510(b)(4)(i)]
 - (2) Procedures for the quality control and quality assurance of continuous emission or opacity monitoring systems as required by the general provisions in subpart A of this part. [40 CFR 63.1510(b)(4)(ii)]
 - v) Procedures for monitoring process and control device parameters, including procedures for annual inspections of afterburners, and if applicable, the procedure to be used for determining charge/feed (or throughput) weight if a measurement device is not used. [40 CFR 63.1510(b)(5)]
 - vi) Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established in 40 CFR §63.1510(b)(1), including:
 - (1) Procedures to determine and record the cause of an deviation or excursion, and the time the deviation or excursion began and ended; and [40 CFR 63.1510(b)(6)(i)]
 - (2) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time/date corrective action was completed. [40 CFR 63.1510(b)(6)(ii)]
 - vii) A maintenance schedule for each process and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance. [40 CFR 63.1510(b)(7)]
 - viii) Documentation of the work practice and pollution prevention measures used to achieve compliance with the applicable emission limits and a site-specific monitoring plan as required in 40 CFR 63.1510(o) for each group 1 furnace not equipped with an add-on air pollution control device (EU0010 through EU0030). [40 CFR 63.1510(b)(8)]
- g) The permittee must include, within the OM&M plan prepared in accordance with 40 CFR 63.1510(b), the following information:
 - i) The identification of each emission unit in the secondary aluminum processing unit (EU0010 through EU0030); [40 CFR 63.1510(s)(1)(i)]
 - ii) The specific control technology or pollution prevention measure to be used for each emission unit in the secondary aluminum processing unit (EU0010 through EU0030) and the date of its installation or application; [40 CFR 63.1510(s)(1)(ii)]
 - iii) The emission limit calculated for each secondary aluminum processing unit (EU0010 through EU0030) and performance test results with supporting calculations demonstrating initial compliance with each applicable emission limit; [40 CFR 63.1510(s)(1)(iii)]
 - iv) Information and data demonstrating compliance for each emission unit (EU0010 through EU0030) with all applicable design, equipment, work practice or operational standards of Subpart RRR; and [40 CFR 63.1510(s)(1)(iv)]

- v) The monitoring requirements applicable to each emission unit in a secondary aluminum processing unit (EU0010 through EU0030) and the monitoring procedures for daily calculation of the three day, 24-hour rolling average using the procedure in 40 CFR 63.1510(t). [40 CFR 63.1510(s)(1)(v)]
- h) The SAPU compliance procedures within the OM&M plan may not contain any of the following provisions:
 - i) Any averaging among emissions of differing pollutants; [40 CFR 63.1510(s)(2)(i)]
 - ii) The inclusion of any affected sources other than emission units in a secondary aluminum processing unit (EU0010 through EU0030); [40 CFR 63.1510(s)(2)(ii)]
 - iii) The inclusion of any emission unit while it is shutdown; or [40 CFR 63.1510(s)(2)(iii)]
 - iv) The inclusion of any periods of startup, shutdown, or malfunction in emission calculations. [40 CFR 63.1510(s)(2)(iv)]
- i) To revise the SAPU compliance provisions within the OM&M plan prior to the end of the permit term, the permittee must submit a request to the applicable permitting authority containing the information required by 40 CFR 63.1510(s)(1) and obtain approval of the applicable permitting authority prior to implementing any revisions. [40 CFR 63.1510(s)(3)]
- j) For each group 1 furnace that is not equipped with an add-on air pollution control device (EU0010 through EU0030) the permittee must develop, in consultation with the responsible permitting authority, a written site-specific monitoring plan. The site-specific monitoring plan must be submitted to the permitting authority as part of the OM&M plan. The site-specific monitoring plan must contain sufficient procedures to ensure continuing compliance with all applicable emission limits and must demonstrate, based on documented test results, the relationship between emissions of PM, HCl, and D/F and the proposed monitoring parameters for each pollutant. Test data must establish the highest level of PM, HCl, and D/F that will be emitted from the furnace. This may be determined by conducting performance tests and monitoring operating parameters while charging the furnace with feed/charge materials containing the highest anticipated levels of oils and coatings and fluxing at the highest anticipated rate. If the permitting authority determines that any revisions of the site-specific monitoring plan are necessary to meet the requirements of this section or this subpart, the permittee must promptly make all necessary revisions and resubmit the revised plan to the permitting authority. [40 CFR 63.1510(o)(1)]
 - i) The permittee must submit the site-specific monitoring plan to the applicable permitting authority for review at least six months prior to the compliance date. [40 CFR 63.1510(o)(1)(i)]
 - ii) The permitting authority will review and approve or disapprove a proposed plan, or request changes to a plan, based on whether the plan contains sufficient provisions to ensure continuing compliance with applicable emission limits and demonstrates, based on documented test results, the relationship between emissions of PM, HCl, and D/F and the proposed monitoring parameters for each pollutant. Test data must establish the highest level of PM, HCl, and D/F that will be emitted from the furnace. Subject to permitting agency approval of the OM&M plan, this may be determined by conducting performance tests and monitoring operating parameters while charging the furnace with feed/charge materials containing the highest anticipated levels of oils and coatings and fluxing at the highest anticipated rate. [40 CFR 63.1510(o)(1)(ii)]
 - iii) Each site-specific monitoring plan must document each work practice, equipment/design practice, pollution prevention practice, or other measure used to meet the applicable emission standards. [40 CFR 63.1510(o)(2)]
 - iv) Each site-specific monitoring plan must include provisions for unit labeling as required in 40 CFR 63.1510(c), feed/charge weight measurement (or production weight measurement) as required in 40 CFR 63.1510(e) and flux weight measurement as required in 40 CFR 63.1510(j).
 - v) [40 CFR 63.1510(o)(3)]
 - vi) If a site-specific monitoring plan includes a scrap inspection program for monitoring the scrap contaminant level of furnace feed/charge materials, the plan must include provisions for demonstration and implementation of the program in accordance with all applicable requirements in 40 CFR 63.1510(p). [40 CFR 63.1510(o)(7)]

- (1) A scrap inspection program for a group 1 furnace without add-on air pollution control devices must include:
 - (a) A proven method for collecting representative samples and measuring the oil and coatings content of scrap samples; [40 CFR 63.1510(p)(1)]
 - (b) A scrap inspector training program; [40 CFR 63.1510(p)(2)]
 - (c) An established correlation between visual inspection and physical measurement of oil and coatings content of scrap samples; [40 CFR 63.1510(p)(3)]
 - (d) Periodic physical measurements of oil and coatings content of randomly-selected scrap samples and comparison with visual inspection results; [40 CFR 63.1510(p)(4)]
 - (e) A system for assuring that only acceptable scrap is charged to an affected group 1 furnace; and [40 CFR 63.1510(p)(5)]
 - (f) Recordkeeping requirements to document conformance with plan requirements. [40 CFR 63.1510(p)(6)]
- vii) If a site-specific monitoring plan includes a calculation method for monitoring the scrap contaminant level of furnace feed/charge materials, the plan must include provisions for the demonstration and implementation of the program in accordance with all applicable requirements in 40 CFR 63.1510(q). [40 CFR 63.1510(o)(8)]
 - (1) For a group 1 furnace dedicated to processing a distinct type of furnace feed/charge composed of scrap with a uniform composition (such as rejected product from a manufacturing process for which the coating-to-scrap ratio can be documented) (EU0010 through EU0030), the permittee may include a program in the site-specific monitoring plan for determining, monitoring, and certifying the scrap contaminant level using a calculation method rather than a scrap inspection program. A scrap contaminant monitoring program using a calculation method must include: [40 CFR 63.1510(q)]
 - (a) Procedures for the characterization and documentation of the contaminant level of the scrap prior to the performance test. [40 CFR 63.1510(q)(1)]
 - (b) Limitations on the furnace feed/charge to scrap of the same composition as that used in the performance test. If the performance test was conducted with a mixture of scrap and clean charge, limitations on the proportion of scrap in the furnace feed/charge to no greater than the proportion used during the performance test. [40 CFR 63.1510(q)(2)]
 - (c) Operating, monitoring, recordkeeping, and reporting requirements to ensure that no scrap with a contaminant level higher than that used in the performance test is charged to the furnace. [40 CFR 63.1510(q)(3)]
- 3) The permittee must inspect the labels for each group 1 furnace (EU0010 through EU0030) at least once per calendar month to confirm that posted labels as required by the operational standard in 40 CFR 63.1506(b) are intact and legible. [40 CFR 63.1510(c)]
- 4) The permittee must install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to, or the aluminum production from, the affected source or emission unit (EU0010 through EU0030) over the same operating cycle or time period used in the performance test. Feed/charge or aluminum production within SAPUs must be measured and recorded on an emission unit-by-emission unit basis. As an alternative to a measurement device, the permittee may use a procedure acceptable to the applicable permitting authority to determine the total weight of feed/charge or aluminum production to the affected source or emission unit. [40 CFR 63.1510(e)]
 - a) The accuracy of the weight measurement device or procedure must be ± 1 percent of the weight being measured. The permittee may apply to the permitting agency for approval to use a device of alternative accuracy if the required accuracy cannot be achieved as a result of equipment layout or charging practices. A device of alternative accuracy will not be approved unless the permittee provides assurance through data and information that the affected source will meet the relevant emission standard. [40 CFR 63.1510(e)(1)]
 - b) The permittee must verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every six months. [40 CFR 63.1510(e)(2)]

- 5) The permittee must:
- a) Install, calibrate, operate, and maintain a device to continuously measure and record the weight of gaseous or liquid reactive flux injected to each affected source or emission unit (EU0010 through EU0030).
[40 CFR 63.1510(j)(1)]
 - i) The monitoring system must record the weight for each 15-minute block period, during which reactive fluxing occurs, over the same operating cycle or time period used in the performance test.
[40 CFR 63.1510(j)(1)(i)]
 - ii) The accuracy of the weight measurement device must be ± 1 percent of the weight of the reactive component of the flux being measured. The permittee may apply to the permitting authority for permission to use a weight measurement device of alternative accuracy in cases where the reactive flux flow rates are so low as to make the use of a weight measurement device of ± 1 percent impracticable. A device of alternative accuracy will not be approved unless the permittee provides assurance through data and information that the affected source will meet the relevant emission standards. [40 CFR 63.1510(j)(1)(ii)]
 - iii) The permittee must verify the calibration of the weight measurement device in accordance with the schedule specified by the manufacturer, or if no calibration schedule is specified, at least once every six months. [40 CFR 63.1510(j)(1)(iii)]
 - b) Calculate and record the gaseous or liquid reactive flux injection rate (kg/Mg or lb/ton) for each operating cycle or time period used in the performance test using the procedure in 40 CFR 63.1512(o).
[40 CFR 63.1510(j)(2)]
 - c) Record, for each 15-minute block period during each operating cycle or time period used in the performance test during which reactive fluxing occurs, the time, weight, and type of flux for each addition of:
 - i) Gaseous or liquid reactive flux other than chlorine [40 CFR 63.1510(j)(3)(i)]
 - ii) Solid reactive flux. [40 CFR 63.1510(j)(3)(ii)]
 - d) Calculate and record the total reactive flux injection rate for each operating cycle or time period used in the performance test using the procedure in 40CFR 63.1512(o). [40 CFR 63.1510(j)(4)]
 - e) The permittee may apply to the Administrator for approval of an alternative method for monitoring and recording the total reactive flux addition rate based on monitoring the weight or quantity of reactive flux per ton of feed/charge for each operating cycle or time period used in the performance test. An alternative monitoring method will not be approved unless the permittee provides assurance through data and information that the affected source will meet the relevant emission standards on a continuous basis.
[40 CFR 63.1510(j)(5)]
- 6) Except as provided in 40 CFR 63.1510(u), the permittee must calculate and record the three-day, 24-hour rolling average emissions of PM, HCl, and D/F for each secondary aluminum processing unit on a daily basis. To calculate the three-day, 24-hour rolling average, the permittee must:
- a) Calculate and record the total weight of material charged to each emission unit in the secondary aluminum processing unit for each 24-hour day of operation using the feed/charge weight information required in 40 CFR 63.1510(e). If the permittee chooses to comply on the basis of weight of aluminum produced by the emission unit, rather than weight of material charged to the emission unit, all performance test emissions results and all calculations must be conducted on the aluminum production weight basis.
[40 CFR 63.1510(t)(1)]
 - b) Multiply the total feed/charge weight to the emission unit, or the weight of aluminum produced by the emission unit, for each emission unit for the 24-hour period by the emission rate (in lb/ton of feed/charge) for that emission unit (as determined during the performance test) to provide emissions for each emission unit for the 24-hour period, in pounds. [40 CFR 63.1510(t)(2)]
 - c) Divide the total emissions for each SAPU for the 24-hour period by the total material charged to the SAPU, or the weight of aluminum produced by the SAPU over the 24-hour period to provide the daily emission rate for the SAPU. [40 CFR 63.1510(t)(3)]
 - d) Compute the 24-hour daily emission rates using the following equation:

$$E_{day} = \frac{\sum_{i=1}^n (T_i \times ER_i)}{\sum_{i=1}^n (T_i)} \quad [40 \text{ CFR } 63.1510(t)(4)]$$

Where:

E_{day} = The daily PM, HCl or D/F emission rate for emission units EU0010 through EU0030 for the 24-hour period

T_i = The total amount of feed, or aluminum produced, for emission unit i for the 24-hour period (tons);

ER_i = The measured emission rate for emission unit i as determined in the performance test (lb/ton or $\mu\text{g}/\text{Mg}$ of feed/charge); and

n = The number of emission units in the secondary aluminum processing unit = 3

- e) Calculate and record the three-day, 24-hour rolling average for each pollutant each day by summing the daily emission rates for each pollutant over the three most recent consecutive days and dividing by three. [40 CFR 63.1510(t)(5)]
- 7) As an alternative to the procedures of 40 CFR 63.1510(t), the permittee may demonstrate, through performance tests, that each individual emission unit within the secondary aluminum production unit is in compliance with the applicable emission limits for the emission unit. [40 CFR 63.1510(u)]
- 8) If the permittee wishes to use an alternative monitoring method to demonstrate compliance with any emission standard in Subpart RRR, other than those alternative monitoring methods which may be authorized pursuant to 40 CFR 63.1510(j)(5) and 40 CFR 63.1510(v), the permittee may submit an application to the Administrator. Any such application will be processed according to the criteria and procedures set forth in 40 CFR 63.1510(w)(1) – (w)(6). [40 CFR 63.1510(w)]
 - a) The Administrator will not approve averaging periods other than those specified in 40 CFR 63.1510. [40 CFR 63.1510(w)(1)]
 - b) The permittee must continue to use the original monitoring requirement until necessary data are submitted and approval is received to use another monitoring procedure. [40 CFR 63.1510(w)(2)]
 - c) The permittee shall submit the application for approval of alternate monitoring methods no later than the notification of the performance test. The application must contain the information specified in 40 CFR 63.1510(w)(3)(i)-(iii): [40 CFR 63.1510(w)(3)]
 - i) Data or information justifying the request, such as the technical or economic infeasibility, or the impracticality of using the required approach; [40 CFR 63.1510(w)(3)(i)]
 - ii) A description of the proposed alternative monitoring requirements, including the operating parameters to be monitored, the monitoring approach and technique, and how the limit is to be calculated; and [40 CFR 63.1510(w)(3)(ii)]
 - iii) Data and information documenting that the alternative monitoring requirement(s) would provide equivalent or better assurance of compliance with the relevant emission standard(s). [40 CFR 63.1510(w)(3)(iii)]
 - d) The Administrator will not approve an alternate monitoring application unless it would provide equivalent or better assurance of compliance with the relevant emission standard(s). Before disapproving any alternate monitoring application, the Administrator will provide: [40 CFR 63.1510(w)(4)]
 - i) Notice of the information and findings upon which the intended disapproval is based; and [40 CFR 63.1510(w)(4)(i)]
 - ii) Notice of opportunity for the permittee to present additional supporting information before final action is taken on the application. This notice will specify how much additional time is allowed for the permittee to provide additional supporting information. [40 CFR 63.1510(w)(4)(ii)]
 - e) The permittee is responsible for submitting any supporting information in a timely manner to enable the Administrator to consider the application prior to the performance test. Neither submittal of an application nor the Administrator's failure to approve or disapprove the application relieves the permittee of the responsibility to comply with any provisions of Subpart RRR. [40 CFR 63.1510(w)(5)]

- f) The Administrator may decide at any time, on a case-by-case basis, that additional or alternative operating limits, or alternative approaches to establishing operating limits, are necessary to demonstrate compliance with the emission standards of Subpart RRR. [40 CFR 63.1510(w)(6)]

Recordkeeping:

- 1) As required by 40 CFR 63.10(b), the permittee shall maintain files of all information (including all reports and notifications) required by the general provisions and this subpart. [40 CFR 63.1517(a)]
 - a) The permittee must retain each record for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record (see Attachment B). The most recent two years of records must be retained at the facility. The remaining three years of records may be retained off site. [40 CFR 63.1517(a)(1)]
 - b) The permittee may retain records on microfilm, computer disks, magnetic tape, or microfiche. [40 CFR 63.1517(a)(2)]
 - c) The permittee may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software. [40 CFR 63.1517(a)(3)]
- 2) In addition to the general records required by 40 CFR 63.10(b), the permittee must maintain records of:
 - a) For each group 1 furnace (with or without add-on air pollution control devices) (EU0010 through EU0030) records of 15-minute block average weights of gaseous or liquid reactive flux injection, total reactive flux injection rate and calculations (including records of the identity, composition, and weight of each addition of gaseous, liquid or solid reactive flux), including records of any period the rate exceeds the compliant operating parameter value and corrective action taken (see Attachment C). [40 CFR 63.1517(b)(5)]
 - b) For each continuous monitoring system, records required by 40 CFR 63.10(c). [40 CFR 63.1517(b)(6)]
 - c) For each affected source and emission unit subject to an emission standard in kg/Mg (lb/ton) of feed/charge (EU0010 through EU0030), records of feed/charge (or throughput) weights for each operating cycle or time period used in the performance test (see Attachment D). [40 CFR 63.1517(b)(7)]
 - d) Approved site-specific monitoring plan for a group 1 furnace without add-on pollution control devices (EU0010 through EU0030) with records documenting conformance with the plan. [40 CFR 63.1517(b)(8)]
 - e) Records of monthly inspections for proper unit labeling for each affected source and emission unit subject to labeling requirements (see Attachment E). [40 CFR 63.1517(b)(13)]
 - f) Records for any approved alternative monitoring or test procedure. [40 CFR 63.1517(b)(15)]
 - g) Current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including:
 - i) Startup, shutdown, and malfunction plan. [40 CFR 63.1517(b)(16)(i)]
 - ii) For major sources, OM&M plan. [40 CFR 63.1517(b)(16)(ii)]
 - iii) Site-specific secondary aluminum processing unit emission plan (if applicable). [40 CFR 63.1517(b)(16)(iii)]
 - h) For each secondary aluminum processing unit, records of total charge weight, or if the permittee chooses to comply on the basis of aluminum production, total aluminum produced for each 24-hour period and calculations of three-day, 24-hour rolling average emissions (see Attachment F). [40 CFR 63.1517(b)(17)]

Reporting:

- 1) As required by 40 CFR 63.9(b)(5), if the permittee intends to construct a new affected source or reconstruct⁴ an affected source subject to Subpart RRR, notification must be provided of the intended construction or

⁴ Reconstruction means the replacement of components of an affected source or emission unit such the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new affected source, and it is technologically and economically feasible for the reconstructed source to meet relevant standard(s) established in subpart RRR. Replacement of the refractory in a furnace is routine maintenance and is not a reconstruction. The repair and replacement of in-line fluxer components (e.g. rotors/shafts, burner tubes, refractory, warped steel) is considered to be routine maintenance and is not considered a reconstruction. In-line fluxers are typically removed to a maintenance/repair area and are replaced with repaired

reconstruction. The notification must include all the information required for an application for approval of construction or reconstruction as required by 40 CFR 63.5(d). For major sources, the application for approval of construction or reconstruction may be used to fulfill these requirements. [40 CFR 63.1515(a)(4)]

- a) The application must be submitted as soon as practicable before the construction or reconstruction is planned to commence. [40 CFR 63.1515(a)(4)(i)]
- 2) As required by 40 CFR 63.9(e) and (f), the permittee must provide notification of the anticipated date for conducting performance tests and visible emission observations. The permittee must notify the Administrator of the intent to conduct a performance test at least 60 days before the performance test is scheduled; notification of opacity or visible emission observations for a performance test must be provided at least 30 days before the observations are scheduled to take place. [40 CFR 63.1515(a)(6)]
- 3) The permittee of an existing affected source (EU0010 through EU0030) must submit a notification of compliance status report within 60 days after the compliance date established by 40 CFR 63.1501(a). [40 CFR 63.1515(b)]
 - a) The notification must be signed by the responsible official who must certify its accuracy.
 - b) The required information may be submitted in an operating permit application, in an amendment to an operating permit application, in a separate submittal or in any combination. If the permittee submits the information at different times or in different submittals, later submittals may refer to earlier submittals instead of duplicating and resubmitting the information previously submitted.
 - c) A complete notification of compliance status report must include:
 - i) All information required by 40 CFR 63.9(h). The permittee must provide a complete performance test report for each affected source and emission unit for which a performance test is required. A complete performance test report includes all data, associated measurements and calculations. [40 CFR 63.1515(b)(1)]
 - ii) The approved site-specific test plan and performance evaluation test results for each continuous monitoring system. [40 CFR 63.1515(b)(2)]
 - iii) Unit labeling as described in 40 CFR 63.1506(b), including process type or furnace classification and operating requirements. [40 CFR 63.1515(b)(3)]
 - iv) The compliant operating parameter value or range established for each affected source or emission unit with supporting documentation and a description of the procedure used to establish the value, including the operating cycle or time period used in the performance test. [40 CFR 63.1515(b)(4)]
 - v) The OM&M plan (including site-specific monitoring plan for each group 1 furnace with no add-on air pollution control device). [40 CFR 63.1515(b)(9)]
 - vi) Startup, shutdown and malfunction plan, with revisions. [40 CFR 63.1515(b)(10)]
- 4) The permittee must develop and implement a written plan as described in 40 CFR 63.6(e)(3) that contains specific procedures to be followed for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the standard. The permittee shall also keep records of each event as required by 40 CFR 63.10(b) and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in 40 CFR 63.6(e)(3). In addition to the information required in 40 CFR 63.6(e)(3), the plan must include: [40 CFR 63.1516(a)]
 - a) Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended. [40 CFR 63.1516(a)(1)]
 - b) Corrective actions to be taken in the event of a malfunction of a process or control device, including procedures for recording the actions taken to correct the malfunction or minimize emissions. [40 CFR 63.1516(a)(2)]
- 5) As required by 40 CFR 63.10(e)(3), the permittee must submit semiannual excess emissions reports within 60 days after the end of each six-month period. Each report must contain the information specified in

units. The replacement of an existing in-line fluxer with a repaired unit is not considered a reconstruction. [40 CFR 63.1503]

- 40 CFR 63.10(c). When no deviations of parameters have occurred, the permittee must submit a report stating that no excess emissions occurred during the reporting period. [40 CFR 63.1516(b)]
- a) A report must be submitted if any of these conditions occur during a six month reporting period:
 - i) An excursion of a compliant process or operating parameter value or range (e.g., total reactive chlorine flux injection rate, definition of acceptable scrap or other approved operating parameter). [40 CFR 63.1516(b)(1)(iv)]
 - ii) An action taken during a startup, shutdown, or malfunction was not consistent with the procedures in the plan as described in 40 CFR §63.6(e)(3). [40 CFR 63.1516(b)(1)(v)]
 - iii) An affected source (including an emission unit in a secondary aluminum processing unit) was not operated according to the requirements of Subpart RRR. [40 CFR 63.1516(b)(1)(vi)]
 - iv) A deviation from the three-day, 24-hour rolling average emission limit for a secondary aluminum processing unit. [40 CFR 63.1516(b)(1)(vii)]
 - b) The permittee must submit the results of any performance test conducted during the reporting period, including one complete report documenting test methods and procedures, process operation, and monitoring parameter ranges or values for each test method used for a particular type of emission point tested. [40 CFR 63.1516(b)(3)]
- 6) Annual compliance certifications. For the purpose of annual certifications of compliance required by 40 CFR part 70 or 71, the permittee must certify continuing compliance based upon, but not limited to, the following conditions:
- a) Any period of excess emissions, as defined in 40 CFR 63.1516(b)(1), that occurred during the year were reported as required by Subpart RRR. [40 CFR 63.1516(c)(1)]
 - b) All monitoring, recordkeeping, and reporting requirements were met during the year. [40 CFR 63.1516(c)(2)]
- 7) The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

Permit Condition (EU0010 through EU0030)-002

10 CSR 10-6.220

Restriction of Emission of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit to be discharged into the atmosphere from any existing source any visible emissions with an opacity greater than 40%. (EU0010 and EU0030)
- 2) No owner or other person shall cause or permit to be discharged into the atmosphere from any new source any visible emissions with an opacity greater than 20%. (EU0020)
- 3) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six minutes in any 60 minutes air contaminants with an opacity up to 60%.

Monitoring:

1. The permittee shall conduct opacity readings on this emission unit using the procedures contained in USEPA Test Method 22. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
2. The following monitoring schedule must be maintained:
 - a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then
 - c) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.

- If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Recordkeeping:

- The permittee shall maintain records of all observation results (see Attachments G and H), noting:
 - Whether any air emissions (except for water vapor) were visible from the emission units,
 - All emission units from which visible emissions occurred, and
 - Whether the visible emissions were normal for the process.
- The permittee shall maintain records of any equipment malfunctions. (See Attachment B.)
- The permittee shall maintain records of any USEPA Method 9 opacity test performed (see Attachment I) in accordance with this permit condition.
- These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- All records shall be maintained for five years.

Reporting:

The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

Permit Condition (EU0010 through EU0030)-003

10 CSR 10-6.260⁵

Restriction of Emission of Sulfur Compounds

Emission Limitation:

- Emissions from any existing source operation shall not contain more than 2000 ppmv of sulfur dioxide on any consecutive three-hour time period. (EU0010 and EU0030)
- Emissions from any new source operation shall not contain more than 500 ppmv of sulfur dioxide on any consecutive three-hour time period. (EU0020)
- Stack gasses shall not contain more than 70 per cubic meter of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three-hour time period. (EU0010 and EU0030)
- Stack gasses shall not contain more than 35 mg per cubic meter of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three-hour time period. (EU0020)
- No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010 Ambient Air Quality Standards. [10 CSR 10-6.260(4) & 10 CSR 10-6.010 Ambient Air Quality Standards]

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO ₂)	0.03 parts per million (ppm) (80 micrograms per cubic meter (µg/m ³))	Annual arithmetic mean
	0.14 ppm (365 µg/m ³)	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 µg/m ³)	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H ₂ S)	0.05 ppm (70 µg/m ³)	½-hour average not to be exceeded over two times per year
	0.03 ppm (42 µg/m ³)	½-hour average not to be exceeded over two times in any five consecutive days
Sulfuric Acid (H ₂ SO ₄)	10 µg/m ³	24-hour average not to be exceeded more than once in any 90 consecutive days

⁵ 10 CSR 10-6.260(4) is state-only.

Pollutant	Concentration by Volume	Remarks
	30 $\mu\text{g}/\text{m}^3$	1-hour average not to be exceeded more than once in any two consecutive days

Equipment and Operation Parameters:

These emission units shall be limited to burning pipeline grade natural gas and propane.

Monitoring/Recordkeeping:

- 1) The permittee shall maintain an accurate record of the sulfur content of fuel used. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 2) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 3) All records shall be maintained for five years.

Reporting:

The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any of the terms imposed by this regulation, or any malfunction which causes an exceedance of this regulation.

Permit Condition (EU0010 through EU0030)-004

10 CSR 10-6.400

Restriction of Emission of Particulate Matter from Industrial Processes

Emission Limitation:

- 1) The permittee shall not emit particulate matter in excess of 20.85 lbs/hr from each of emission units EU0010 and EU0020.
- 2) The permittee shall not emit particulate matter in excess of 21.62 lbs/hr from emission unit EU0030.
- 3) The concentration of particulate matter in the exhaust gases from each of these emission units shall not exceed 0.30 gr/scf.

Monitoring/Recordkeeping:

- 1) The permittee shall retain the potential to emit calculations in Attachment J which demonstrate that the above emission limitations will never be exceeded. No further recordkeeping shall be required to demonstrate compliance with this emission limitation.
- 2) These records shall be made available immediately for inspection to the Department of Natural Resources personnel upon request.
- 3) All records shall be maintained for five years.

Reporting:

The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

EU0040 through EU0050 East Homogenizing Furnace West Homogenizing Furnace			
Emission Unit	Description	Manufacturer/Model #	2005 EIQ Reference #
EU0040	Furnace used as a heat treatment process for the castings at a maximum hourly rate of 6.45 tons per hour; Equipped with six 4.2 MMBtu/hr burners; Installed in 1998.	Hydro Aluminum/North American Burners Model 4422-8-AZ	EP-04
EU0050	Furnace used as a heat treatment process for the castings at a maximum hourly rate of 6.45 tons per hour; Equipped with six 4.2 MMBtu/hr burners; Installed in 1987.	Seco-Warwick	EP-05

Permit Condition (EU0040 through EU0050)-001

10 CSR 10-3.060

Maximum Allowable Emissions of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating

Emission Limitation:

The permittee shall not emit particulate matter in excess of 0.29 pounds per million BTU of heat input from each of Emission Units EU0040 and EU0050.

Equipment and Operation Parameters:

These emission units shall be limited to burning pipeline grade natural gas and propane.

Monitoring/Recordkeeping:

- 1) The permittee shall retain the potential to emit calculations in Attachment K which demonstrate that the above emission limitation will never be exceeded. No further recordkeeping shall be required to demonstrate compliance with this emission limitation.
- 2) These records shall be made available immediately for inspection to the Department of Natural Resources personnel upon request.
- 3) All records shall be maintained for five years.

Reporting:

The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

Permit Condition (EU0040 through EU0050)-002

10 CSR 10-6.260⁶

Restriction of Emission of Sulfur Compounds

Emission Limitation:

- 1) No person shall cause or allow emissions of sulfur dioxide into the atmosphere from any indirect heating source in excess of eight pounds of sulfur dioxide per million BTUs actual heat input averaged on any consecutive three hour time period
- 2) No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010 Ambient Air Quality Standards. [10 CSR 10-6.260(4) & 10 CSR 10-6.010 Ambient Air Quality Standards]

⁶ 10 CSR 10-6.260(4) is state-only.

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO ₂)	0.03 parts per million (ppm) (80 micrograms per cubic meter (µg/m ³))	Annual arithmetic mean
	0.14 ppm (365 µg/m ³)	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 µg/m ³)	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H ₂ S)	0.05 ppm (70 µg/m ³)	½-hour average not to be exceeded over two times per year
	0.03 ppm (42 µg/m ³)	½-hour average not to be exceeded over two times in any five consecutive days
Sulfuric Acid (H ₂ SO ₄)	10 µg/m ³	24-hour average not to be exceeded more than once in any 90 consecutive days
	30 µg/m ³	1-hour average not to be exceeded more than once in any two consecutive days

Equipment and Operation Parameters:

These emission units shall be limited to burning pipeline grade natural gas and propane.

Monitoring/Recordkeeping:

- 1) The permittee shall maintain an accurate record of the sulfur content of fuel used. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 2) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 3) All records shall be maintained for five years.

Reporting:

The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

EU0060		
Casting Pit Fugitives		
Description	Manufacturer/Model #	2005 EIQ Reference #
Pouring of molten metal to form ingots of aluminum; Includes the use of synthetic oil; Installed in 1970.	Hydro Aluminum	EP-29

Permit Condition EU0060-001

10 CSR 10-6.260⁷

Restriction of Emission of Sulfur Compounds

Emission Limitation:

- 1) Emissions from any existing source operation shall not contain more than 2000 ppmv of sulfur dioxide on any consecutive three-hour time period.
- 2) Stack gasses shall not contain more than 70 mg per cubic meter of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three-hour time period.

⁷ 10 CSR 10-6.260(4) is state-only.

- 3) No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010 Ambient Air Quality Standards. [10 CSR 10-6.260(4) & 10 CSR 10-6.010 Ambient Air Quality Standards]

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO ₂)	0.03 parts per million (ppm) (80 micrograms per cubic meter (µg/m ³))	Annual arithmetic mean
	0.14 ppm (365 µg/m ³)	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 µg/m ³)	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H ₂ S)	0.05 ppm (70 µg/m ³)	½-hour average not to be exceeded over two times per year
	0.03 ppm (42 µg/m ³)	½-hour average not to be exceeded over two times in any five consecutive days
Sulfuric Acid (H ₂ SO ₄)	10 µg/m ³	24-hour average not to be exceeded more than once in any 90 consecutive days
	30 µg/m ³	1-hour average not to be exceeded more than once in any two consecutive days

Equipment and Operation Parameters:

This emission unit shall be limited to using synthetic oil in the casting process.

Monitoring/Recordkeeping:

- 1) The permittee shall maintain an accurate record of the sulfur content of synthetic oil used. Purchase receipts, analyzed samples or certifications that verify the oil type and sulfur content will be acceptable.
- 2) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 3) All records shall be maintained for five years.

Reporting:

The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

IV. Core Permit Requirements

The installation shall comply with each of the following requirements. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

10 CSR 10-6.050 Start-up, Shutdown and Malfunction Conditions

- 1) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the director within two business days, in writing, the following information:
 - a) Name and location of installation;
 - b) Name and telephone number of person responsible for the installation;
 - c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
 - d) Identity of the equipment causing the excess emissions;
 - e) Time and duration of the period of excess emissions;
 - f) Cause of the excess emissions;
 - g) Air pollutants involved;
 - h) Best estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude;
 - i) Measures taken to mitigate the extent and duration of the excess emissions; and
 - j) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.
- 2) The permittee shall submit the paragraph 1 information list to the director in writing at least ten days prior to any maintenance, start-up or shutdown, which is expected to cause an excessive release of emissions that exceed one hour. If notice of the event cannot be given ten days prior to the planned occurrence, it shall be given as soon as practicable prior to the release. If an unplanned excess release of emissions exceeding one hour occurs during maintenance, start-up or shutdown, the director shall be notified verbally as soon as practical during normal working hours and no later than the close of business of the following working day. A written notice shall follow within ten working days.
- 3) Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under section 643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the paragraph 1 list and shall be submitted not later than 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under section 643.080 or 643.151, RSMo.
- 4) Nothing in this rule shall be construed to limit the authority of the director or commission to take appropriate action, under sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.
- 5) Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

10 CSR 10-6.060 Construction Permits Required

The permittee shall not commence construction, modification, or major modification of any installation subject to this rule, begin operation after that construction, modification, or major modification, or begin operation of any installation which has been shut down longer than five years without first obtaining a permit from the permitting authority.

10 CSR 10-6.065 Operating Permits

The permittee shall file a complete application for renewal of this operating permit at least six months before the date of permit expiration. In no event shall this time be greater than eighteen months.

[10 CSR 10-6.065(6)(B)1.A(V)] The permittee shall retain the most current operating permit issued to this installation on-site. [10 CSR 10-6.065(6)(C)1.C(II)] The permittee shall immediately make such permit available to any Missouri Department of Natural Resources personnel upon request.

[10 CSR 10-6.065(6)(C)3.B]

10 CSR 10-6.110 Submission of Emission Data, Emission Fees and Process Information

- 1) The permittee shall complete and submit an Emission Inventory Questionnaire (EIQ) in accordance with the requirements outlined in this rule.
- 2) The permittee shall pay an annual emission fee per ton of regulated air pollutant emitted according to the schedule in the rule. This fee is an emission fee assessed under authority of RSMo. 643.079 to satisfy the requirements of the Federal Clean Air Act, Title V.
- 3) The fees shall be due April 1 each year for emissions produced during the previous calendar year. The fees shall be payable to the Department of Natural Resources and shall be accompanied by the Emissions Inventory Questionnaire (EIQ) form or equivalent approved by the director.

10 CSR 10-6.130 Controlling Emissions During Episodes of High Air Pollution Potential

This rule specifies the conditions that establish an air pollution alert (yellow/orange/red/purple), or emergency (maroon) and the associated procedures and emission reduction objectives for dealing with each. The permittee shall submit an appropriate emergency plan if required by the Director.

10 CSR 10-6.150 Circumvention

The permittee shall not cause or permit the installation or use of any device or any other means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission or air contaminant which violates a rule of the Missouri Air Conservation Commission.

10 CSR 10-6.170 Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin

- 1) The permittee shall not cause or allow to occur any handling, transporting or storing of any material; construction, repair, cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may allow, fugitive particulate matter emissions to go beyond the premises of origin in quantities that the particulate matter may be found on surfaces beyond the property line of origin. The nature or origin of the particulate matter shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the director.
- 2) The permittee shall not cause nor allow to occur any fugitive particulate matter emissions to remain visible in the ambient air beyond the property line of origin.

- 3) Should it be determined that noncompliance has occurred, the director may require reasonable control measures as may be necessary. These measures may include, but are not limited to, the following:
 - a) Revision of procedures involving construction, repair, cleaning and demolition of buildings and their appurtenances that produce particulate matter emissions;
 - b) Paving or frequent cleaning of roads, driveways and parking lots;
 - c) Application of dust-free surfaces;
 - d) Application of water; and
 - e) Planting and maintenance of vegetative ground cover.

10 CSR 10-6.180 Measurement of Emissions of Air Contaminants

- 1) The director may require any person responsible for the source of emission of air contaminants to make or have made tests to determine the quantity or nature, or both, of emission of air contaminants from the source. The director may specify testing methods to be used in accordance with good professional practice. The director may observe the testing. All tests shall be performed by qualified personnel.
- 2) The director may conduct tests of emissions of air contaminants from any source. Upon request of the director, the person responsible for the source to be tested shall provide necessary ports in stacks or ducts and other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants.
- 3) The director shall be given a copy of the test results in writing and signed by the person responsible for the tests.

10 CSR 10-3.030 Open Burning Restrictions

- 1) The permittee shall not conduct, cause, permit or allow a salvage operation, the disposal of trade wastes or burning of refuse by open burning.
- 2) Exception - Open burning of trade waste or vegetation may be permitted only when it can be shown that open burning is the only feasible method of disposal or an emergency exists which requires open burning.
- 3) Any person intending to engage in open burning shall file a request to do so with the director. The request shall include the following:
 - a) The name, address and telephone number of the person submitting the application; The type of business or activity involved; A description of the proposed equipment and operating practices, the type, quantity and composition of trade wastes and expected composition and amount of air contaminants to be released to the atmosphere where known;
 - b) The schedule of burning operations;
 - c) The exact location where open burning will be used to dispose of the trade wastes;
 - d) Reasons why no method other than open burning is feasible; and
 - e) Evidence that the proposed open burning has been approved by the fire control authority which has jurisdiction.
- 4) Upon approval of the open burning permit application by the director, the person may proceed with the operation under the terms of the open burning permit. Be aware that such approval shall not exempt Hydro Aluminum Metal Products from the provisions of any other law, ordinance or regulation.
- 5) The permittee shall maintain files with letters from the director approving the open burning operation and previous DNR inspection reports.

10 CSR 10-3.090 Restriction of Emission of Odors

No person may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one volume of odorous air is diluted with seven volumes of odor-free air for two separate trials not less than 15 minutes apart within the period of one hour.

This requirement is not federally enforceable.

10 CSR 10-6.100 Alternate Emission Limits

Proposals for alternate emission limitations shall be submitted on Alternate Emission Limits Permit forms provided by the department. An installation owner or operator must obtain an Alternate Emission Limits Permit in accordance with 10 CSR 10-6.100 before alternate emission limits may become effective.

**10 CSR 10-6.080 Emission Standards for Hazardous Air Pollutants and 40 CFR Part 61
Subpart M National Emission Standard for Asbestos**

- 1) The permittee shall follow the procedures and requirements of 40 CFR Part 61, Subpart M for any activities occurring at this installation which would be subject to provisions for 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos.
- 2) The permittee shall conduct monitoring to demonstrate compliance with registration, certification, notification, and Abatement Procedures and Practices standards as specified in 40 CFR Part 61, Subpart M.

10 CSR 10-6.250 Asbestos Abatement Projects – Certification, Accreditation, and Business Exemption Requirements

The permittee shall conduct all asbestos abatement projects within the procedures established for certification and accreditation by 10 CSR 10-6.250. This rule requires individuals who work in asbestos abatement projects to be certified by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires training providers who offer training for asbestos abatement occupations to be accredited by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires persons who hold exemption status from certain requirements of this rule to allow the department to monitor training provided to employees. Each individual who works in asbestos abatement projects must first obtain certification for the appropriate occupation from the department. Each person who offers training for asbestos abatement occupations must first obtain accreditation from the department. Certain business entities that meet the requirements for state-approved exemption status must allow the department to monitor training classes provided to employees who perform asbestos abatement.

Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone

- 1) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
 - b) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
 - c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
 - d) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.

- 2) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
 - a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
 - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to §82.166. ("MVAC-like" appliance as defined at §82.152).
 - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
 - f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
- 3) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
- 4) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.

The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *Federal Only - 40 CFR part 82*

10 CSR 10-6.280 Compliance Monitoring Usage

- 1) The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - c) Any other monitoring methods approved by the director.
- 2) Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred by a permittee:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - c) Compliance test methods specified in the rule cited as the authority for the emission limitations.
- 3) The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
 - a) Applicable monitoring or testing methods, cited in:

- i) 10 CSR 10-6.030, "Sampling Methods for Air Pollution Sources";
 - ii) 10 CSR 10-6.040, "Reference Methods";
 - iii) 10 CSR 10-6.070, "New Source Performance Standards";
 - iv) 10 CSR 10-6.080, "Emission Standards for Hazardous Air Pollutants"; or
- b) Other testing, monitoring, or information gathering methods, if approved by the director, that produce information comparable to that produced by any method listed above.

V. General Permit Requirements

The installation shall comply with each of the following requirements. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued,

10 CSR 10-6.065(6)(C)1.B Permit Duration

This permit is issued for a term of five years, commencing on the date of issuance. This permit will expire at the end of this period unless renewed.

10 CSR 10-6.065(6)(C)1.C General Recordkeeping and Reporting Requirements

- 1) Recordkeeping
 - a) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.
 - b) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made immediately available to any Missouri Department of Natural Resources' personnel upon request.
- 2) Reporting
 - a) All reports shall be submitted to the Air Pollution Control Program, Enforcement Section, P. O. Box 176, Jefferson City, MO 65102.
 - b) The permittee shall submit a report of all required monitoring by:
 - i) October 1st for monitoring which covers the January through June time period, and
 - ii) April 1st for monitoring which covers the July through December time period.
 - iii) Exception. Monitoring requirements which require reporting more frequently than semi annually shall report no later than 30 days after the end of the calendar quarter in which the measurements were taken.
 - c) Each report shall identify any deviations from emission limitations, monitoring, recordkeeping, reporting, or any other requirements of the permit, this includes deviations or Part 64 exceedances.
 - d) Submit supplemental reports as required or as needed. Supplemental reports are required no later than ten days after any exceedance of any applicable rule, regulation or other restriction. All reports of deviations shall identify the cause or probable cause of the deviations and any corrective actions or preventative measures taken.
 - i) Notice of any deviation resulting from an emergency (or upset) condition as defined in paragraph (6)(C)7.A of 10 CSR 10-6.065 (Emergency Provisions) shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if the permittee wishes to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and the permittee can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.
 - ii) Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable.

- iii) Any other deviations identified in the permit as requiring more frequent reporting than the permittee's semiannual report shall be reported on the schedule specified in this permit, and no later than ten days after any exceedance of any applicable rule, regulation, or other restriction.
- e) Every report submitted shall be certified by the responsible official, except that, if a report of a deviation must be submitted within ten days after the deviation, the report may be submitted without a certification if the report is resubmitted with an appropriate certification within ten days after that, together with any corrected or supplemental information required concerning the deviation.
- f) The permittee may request confidential treatment of information submitted in any report of deviation.

10 CSR 10-6.065(6)(C)1.D Risk Management Plan Under Section 112(r)

The permittee shall comply with the requirements of 40 CFR Part 68, Accidental Release Prevention Requirements. If the permittee has more than a threshold quantity of a regulated substance in process, as determined by 40 CFR Section 68.115, the permittee shall submit a Risk Management Plan in accordance with 40 CFR Part 68 no later than the latest of the following dates:

- 1) June 21, 1999;
- 2) Three years after the date on which a regulated substance is first listed under 40 CFR Section 68.130; or
- 3) The date on which a regulated substance is first present above a threshold quantity in a process.

10 CSR 10-6.065(6)(C)1.F Severability Clause

In the event of a successful challenge to any part of this permit, all uncontested permit conditions shall continue to be in force. All terms and conditions of this permit remain in effect pending any administrative or judicial challenge to any portion of the permit. If any provision of this permit is invalidated, the permittee shall comply with all other provisions of the permit.

10 CSR 10-6.065(6)(C)1.G General Requirements

- 1) The permittee must comply with all of the terms and conditions of this permit. Any noncompliance with a permit condition constitutes a violation and is grounds for enforcement action, permit termination, permit revocation and re-issuance, permit modification or denial of a permit renewal application.
- 2) The permittee may not use as a defense in an enforcement action that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit
- 3) The permit may be modified, revoked, reopened, reissued or terminated for cause. Except as provided for minor permit modifications, the filing of an application or request for a permit modification, revocation and reissuance, or termination, or the filing of a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- 4) This permit does not convey any property rights of any sort, nor grant any exclusive privilege.
- 5) The permittee shall furnish to the Air Pollution Control Program, upon receipt of a written request and within a reasonable time, any information that the Air Pollution Control Program reasonably may require to determine whether cause exists for modifying, reopening, reissuing or revoking the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the Air Pollution Control Program copies of records required to be kept by the permittee. The permittee may

make a claim of confidentiality for any information or records submitted pursuant to 10 CSR 10-6.065(6)(C)1.

10 CSR 10-6.065(6)(C)1.H Incentive Programs Not Requiring Permit Revisions

No permit revision will be required for any installation changes made under any approved economic incentive, marketable permit, emissions trading, or other similar programs or processes provided for in this permit.

10 CSR 10-6.065(6)(C)1.I Reasonably Anticipated Operating Scenarios

None.

10 CSR 10-6.065(6)(C)3 Compliance Requirements

- 1) Any document (including reports) required to be submitted under this permit shall contain a certification signed by the responsible official.
- 2) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized officials of the Missouri Department of Natural Resources, or their authorized agents, to perform the following (subject to the installation's right to seek confidential treatment of information submitted to, or obtained by, the Air Pollution Control Program):
 - a) Enter upon the premises where a permitted installation is located or an emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
 - b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c) Inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - d) As authorized by the Missouri Air Conservation Law, Chapter 643, RSMo or the Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the terms of this permit, and all applicable requirements as outlined in this permit.
- 3) All progress reports required under an applicable schedule of compliance shall be submitted semiannually (or more frequently if specified in the applicable requirement). These progress reports shall contain the following:
 - a) Dates for achieving the activities, milestones or compliance required in the schedule of compliance, and dates when these activities, milestones or compliance were achieved, and
 - b) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted.
- 4) The permittee shall submit an annual certification that it is in compliance with all of the federally enforceable terms and conditions contained in this permit, including emissions limitations, standards, or work practices. These certifications shall be submitted annually by April 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, as well as the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. All deviations and Part 64 exceedances and excursions must be included in the compliance certifications. The compliance certification shall include the following:
 - a) The identification of each term or condition of the permit that is the basis of the certification;
 - b) The current compliance status, as shown by monitoring data and other information reasonably available to the installation;
 - c) Whether compliance was continuous or intermittent;

- d) The method(s) used for determining the compliance status of the installation, both currently and over the reporting period; and
- e) Such other facts as the Air Pollution Control Program will require in order to determine the compliance status of this installation.

10 CSR 10-6.065(6)(C)6 Permit Shield

- 1) Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date that this permit is issued, provided that:
 - a) The application requirements are included and specifically identified in this permit, or
 - b) The permitting authority, in acting on the permit revision or permit application, determines in writing that other requirements, as specifically identified in the permit, are not applicable to the installation, and this permit expressly includes that determination or a concise summary of it.
- 2) Be aware that there are exceptions to this permit protection. The permit shield does not affect the following:
 - a) The provisions of section 303 of the Act or section 643.090, RSMo concerning emergency orders,
 - b) Liability for any violation of an applicable requirement which occurred prior to, or was existing at, the time of permit issuance,
 - c) The applicable requirements of the acid rain program,
 - d) The authority of the Environmental Protection Agency and the Air Pollution Control Program of the Missouri Department of Natural Resources to obtain information, or
 - e) Any other permit or extra-permit provisions, terms or conditions expressly excluded from the permit shield provisions.

10 CSR 10-6.065(6)(C)7 Emergency Provisions

- 1) An emergency or upset as defined in 10 CSR 10-6.065(6)(C)7.A shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emissions limitations. To establish an emergency- or upset-based defense, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, the following:
 - a) That an emergency or upset occurred and that the permittee can identify the source of the emergency or upset,
 - b) That the installation was being operated properly,
 - c) That the permittee took all reasonable steps to minimize emissions that exceeded technology-based emissions limitations or requirements in this permit, and
 - d) That the permittee submitted notice of the emergency to the Air Pollution Control Program within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.
- 2) Be aware that an emergency or upset shall not include noncompliance caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

10 CSR 10-6.065(6)(C)8 Operational Flexibility

An installation that has been issued a Part 70 operating permit is not required to apply for or obtain a permit revision in order to make any of the changes to the permitted installation described below if the changes are not Title I modifications, the changes do not cause emissions to exceed emissions allowable under the permit, and the changes do not result in the emission of any air contaminant not previously emitted. The permittee shall notify the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 901 North 5th Street,

Kansas City, Kansas 66101, at least seven days in advance of these changes, except as allowed for emergency or upset conditions. Emissions allowable under the permit means a federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that establishes an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

- 1) Section 502(b)(10) changes. Changes that, under section 502(b)(10) of the Act, contravene an express permit term may be made without a permit revision, except for changes that would violate applicable requirements of the Act or contravene federally enforceable monitoring (including test methods), recordkeeping, reporting or compliance requirements of the permit.
 - a) Before making a change under this provision, The permittee shall provide advance written notice to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, describing the changes to be made, the date on which the change will occur, and any changes in emission and any permit terms and conditions that are affected. The permittee shall maintain a copy of the notice with the permit, and the APCP shall place a copy with the permit in the public file. Written notice shall be provided to the EPA and the APCP as above at least seven days before the change is to be made. If less than seven days notice is provided because of a need to respond more quickly to these unanticipated conditions, the permittee shall provide notice to the EPA and the APCP as soon as possible after learning of the need to make the change.
 - b) The permit shield shall not apply to these changes.

10 CSR 10-6.065(6)(C)9 Off-Permit Changes

- 1) Except as noted below, the permittee may make any change in its permitted operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. Insignificant activities listed in the application, but not otherwise addressed in or prohibited by this permit, shall not be considered to be constrained by this permit for purposes of the off-permit provisions of this section. Off-permit changes shall be subject to the following requirements and restrictions:
 - a) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; the permittee may not change a permitted installation without a permit revision if this change is subject to any requirements under Title IV of the Act or is a Title I modification;
 - b) The permittee must provide written notice of the change to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, no later than the next annual emissions report. This notice shall not be required for changes that are insignificant activities under 10 CSR 10-6.065(6)(B)3. This written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change.
 - c) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes; and
 - d) The permit shield shall not apply to these changes.

10 CSR 10-6.020(2)(R)12 Responsible Official

The application utilized in the preparation of this permit was signed by Mr. Frank Carnell, Managing Director. The Air Pollution Control Program was informed that Mr. William Painter, Operations Manager is now the responsible official. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Director of the Air Pollution Control Program of the change. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

10 CSR 10-6.065(6)(E)6 Reopening-Permit for Cause

This permit may be reopened for cause if:

- 1) The Missouri Department of Natural Resources receives notice from the Environmental Protection Agency (EPA) that a petition for disapproval of a permit pursuant to 40 CFR § 70.8(d) has been granted, provided that the reopening may be stayed pending judicial review of that determination,
- 2) Missouri Department of Natural Resources or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,
- 3) Additional applicable requirements under the Act become applicable to the installation; however, reopening on this ground is not required if—:
 - a) The permit has a remaining term of less than three years;
 - b) The effective date of the requirement is later than the date on which the permit is due to expire; or
 - c) The additional applicable requirements are implemented in a general permit that is applicable to the installation and the installation receives authorization for coverage under that general permit,
- 4) The installation is an affected source under the acid rain program and additional requirements (including excess emissions requirements), become applicable to that source, provided that, upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the permit; or
- 5) Missouri Department of Natural Resources or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

10 CSR 10-6.065(6)(E)1.C Statement of Basis

This permit is accompanied by a statement setting forth the legal and factual basis for the draft permit conditions (including references to applicable statutory or regulatory provisions). This Statement of Basis, while referenced by the permit, is not an actual part of the permit.

VI. Attachments

Attachment F

This attachment may be used to help meet the recordkeeping requirements of Permit Condition (EU0010 through EU0030)-001.

Emission Calculations
(please specify units for all values)

Beginning of 24-hour period (Date/Time) _____ End of 24-hour period (Date/Time) _____

<u>Emission Unit</u>	<u>Feed/Charge Weight</u>
Aluminum Melting Furnace #1 (EU0010)	_____
Aluminum Melting Furnace #2 (EU0020)	_____
Holding Furnace (EU0030)	_____

PM Emission Rate (24 hour)	_____	HCl Emission Rate (24 hour)	_____	D/F Emission Rate (24 hour)	_____
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PM Emission Rate (3-day, 24-hour rolling avg.)	_____	HCl Emission Rate (3-day, 24-hour rolling avg.)	_____	D/F Emission Rate (3-day, 24-hour rolling avg.)	_____
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PM Emission Rate Limit (3-day, 24-hour rolling avg.)	_____	HCl Emission Rate Limit (3-day, 24-hour rolling avg.)	_____	D/F Emission Rate Limit (3-day, 24-hour rolling avg.)	_____
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Attachment J

This attachment may be used to help meet the recordkeeping requirements of Permit Condition (EU0010 through EU0030)-004.

Demonstration of Compliance with Particulate Matter (PM) Pound per Hour Limit					
Emission Unit ID	Maximum Hourly Design Rate (tons/hr)	PM Emission Factor (lb/ton)	Emission Factor Reference	Potential PM Emission Rate ¹ (lb/hr)	Allowable PM Emission Rate (lb/hr)
EU0010	11.333	0.09	03/06/96 Stack Test	1.02	20.85
EU0020	11.333	0.09	Assumed same as EU0010	1.02	20.85
EU0030	11.96	NA	Testing on Similar Units - See Statement of Basis for complete explanation.	3.0	21.62

¹ Potential PM Emission Rate = Maximum Hourly Design Rate (tons/hr) × Emission Factor (lb/ton)

Demonstration of Compliance with Grain Loading Limit					
Emission Unit ID	Potential PM Emission Rate (lb/hr)	Flow Rate (dscf/min)	Source of Flow Rate	Grain Loading ¹	Grain Loading Limit
EU0010	1.02	11,291	03/06/96 Stack Test	0.01	0.3
EU0020	1.02	11,291	Assumed same as EU0010	0.01	0.3
EU0030	3.0	1460	2001 EIQ – See Statement of Basis for complete explanation.	0.24	0.3

¹ Grain Loading (gr/dscf) = Pot. PM Emission Rate (lb/hr) ÷ 60 minutes/hr ÷ Flow Rate (dscf/min) × 7000 gr/lb

Attachment K

This attachment may be used to help meet the recordkeeping requirements of Permit Condition (EU0040 through EU0050)-001.

Demonstration of Compliance with 10 CSR 10-3.060						
Unit	Fuel	Maximum Hourly Design Rate ¹	Emission Factor ²	Boiler Heat Capacity (MMBtu/hr)	Potential PM Emission Rate (lbs/MMBtu)	Emission Limitation (lbs/MMBtu)
EU0040	Natural Gas	0.05	7.6	47	0.01	0.29
	Propane	0.52	0.6	47	0.01	0.29
EU0050	Natural Gas	0.03	7.6	25.2	0.01	0.29
	Propane	0.29	0.6	25.2	0.01	0.29

¹ Natural Gas: 1020 MMBtu/MMCF
 Units = MMCF/hr

Propane: 91.5 MMBtu/1000 gallons
 Units = 1000 gallons/hr

² Natural Gas: Emission Factor Source = AP42 Sec 1.4 (7/98)
 Units = lb PM/MMCF

Propane: Emission Factor Source = AP42 Sec 1.5 (10/96)
 Units = lb PM/1000 gallons

³ Potential PM Emission Rate = Maximum Hourly Design Rate × Emission Factor ÷ Boiler Heat Capacity

STATEMENT OF BASIS

Permit Reference Documents

These documents were relied upon in the preparation of the operating permit. Because they are not incorporated by reference, they are not an official part of the operating permit.

- 1) Part 70 Operating Permit Application, received December 30, 2002;
- 2) 2005 Emissions Inventory Questionnaire, received April 3, 2006;
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition;
- 4) Factor Information Retrieval (FIRE) Data System version 6.23;
- 5) Federal Register dated February 11, 1999;
- 6) Part 70 Operating Permit Number 009-0005-0001;
- 7) Communications from the installation dated August 1, 2003 and November 7, 2003.

Applicable Requirements Included in the Operating Permit but Not in the Application

In the operating permit application, the installation indicated they were not subject to the following regulation(s). However, in the review of the application, the agency has determined that the installation is subject to the following regulation(s) for the reasons stated.

- 1) 10 CSR 10-6.060, *Construction Permits Required*
Air Pollution Control Program Permit to Construct Number 0197-017
Air Pollution Control Program Permit to Construct Number 1297-010
The requirements of these construction permits were not included in the operating permit application. However, they have been deemed to apply to the installation and are included in the operating permit.
- 2) 10 CSR 10-6.080, *Emission Standards for Hazardous Air Pollutants*
Since 40 CFR Part 61 Subpart M has been deemed to apply to all installations as a core permit requirement, this rule also applies as a core permit requirement as it references 40 CFR Part 61 subparts.
- 3) 10 CSR 10-6.100, *Alternate Emission Limits*
This rule has been deemed to be applicable to all installations in the event that an area is redesignated nonattainment for ozone and is, as such, included in the operating permit as a core permit requirement.
- 4) 10 CSR 10-6.250, *Asbestos Abatement Projects – Certification, Accreditation and Business Exemption Requirements*
This rule has been deemed to be applicable to all installations and is, as such, included in the operating permit as a core permit requirement.
- 5) 10 CSR 10-6.280, *Compliance Monitoring Usage*
On past forms issued by the Air Pollution Control Program, including the application for this permit, this rule was automatically marked as an administrative rule not required to be listed as an applicable requirement. It is no longer judged to be solely administrative and is, therefore, included in the operating permit as a core permit requirement.

Other Air Regulations Determined Not to Apply to the Operating Permit

The Air Pollution Control Program (APCP) has determined the following requirements to not be applicable to this installation at this time for the reasons stated.

- 1) 10 CSR 10-6.060, *Construction Permits Required*
Air Pollution Control Program Permit to Construct Number 1087-006A
This permit was superceded by Permit to Construct Number 0197-017 and therefore is not included in either operating permit for this installation.
- 2) 10 CSR 10-6.060, *Construction Permits Required*
Air Pollution Control Program Permit to Construct Number 032000-002
The conditions of this permit were superceded by Permit to Construct Number 032000-002 and therefore are not included in either operating permit for this installation.
- 3) 10 CSR 10-6.060, *Construction Permits Required*
Air Pollution Control Program Permit to Construct Number 032000-002A
Air Pollution Control Program Permit to Construct Number 072003-009
The requirements of these construction permits were not included in this operating permit, as they are only applicable to emission units associated with the extrusion and painting operations.
- 4) 10 CSR 10-6.060, *Construction Permits Required*
Air Pollution Control Program Permit to Construct Number 032000-017
The only requirement associated with this construction permit is rendering the burner that was replaced inoperable once the permitted burners were installed. Since the permitted burners have been installed and the original burner removed, the conditions of the permit are no longer needed. As such, the permit was not included in either operating permit for the installation.
- 5) 10 CSR 10-6.060, *Construction Permits Required*
Air Pollution Control Program Permit to Construct Number 102001-013
The application of a release coating to painted extrusions, which is subject to this construction permit, was never installed. According to the Standard Conditions of the construction permit, Hydro Aluminum had to begin construction on the release coating project within two years of the effective date of the permit (or by September 19, 2003) or otherwise notify the agency. Since no extension was requested, construction of the release coating project cannot begin without applying for another construction permit. In addition, Construction Permit Number 072003-009 implies that the installation currently has no intention of installing the release coating emission unit. As such, the requirements of this construction permit were not included in either operating permit for the installation.

Construction Permit Revisions

The following revisions were made to construction permits for this installation:

Air Pollution Control Program Permit to Construct Number 0197-017

Due to name changes since the issuance of this construction permit, the name of the installation was not included in the condition but was instead referred to as "the permittee."

NSPS Applicability

- 1) Currently, there are no 40 CFR Part 60 subparts that apply to the emission units covered under this permit.
- 2) 40 CFR Part 60 Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, does not apply to any of the combustion units at this installation since none meet both the size and construction date applicability requirements

- 3) 40 CFR Part 60 Subparts K, *Standards of Performance for Storage Vessels for Petroleum Liquids for which Construction, Reconstruction or Modification Commenced After June 11, 1973 and Prior to May 19, 1978*, Ka, *Standards of Performance for Storage Vessels for Petroleum Liquids for which Construction, Reconstruction or Modification Commenced After May 18, 1978 and Prior to July 23, 1984* and Kb, *Standards of Performance for Volatile Organic Liquid Storage Vessels(Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction or Modification Commenced After July 23, 1984*, do not apply since all storage tanks at the installation have capacities of less than 10,000 gallons.

MACT Applicability

- 1) 40 CFR Part 63 Subpart RRR, *National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production*, does apply to the melting and holding furnaces (EU0010, EU0020 and EU0030) since each of these units melts or processes molten metal. The rule was not applied to the homogenizing furnaces (EU0040 and EU0050) since these furnaces only process castings and not molten metal. The rule does not define a furnace. However, the preamble to the original proposed rule does as a “refractory-lined metal vessel heated by an oil or gas burner to achieve a metal temperature of about 760°C (1400°F).” In addition, the same preamble describes HAP emissions as coming from scrap contamination, fluxing and alloying agents. All of these activities are associated with melting furnaces and not heat treating furnaces (like the homogenizing furnaces). Therefore, the rule was only included in the operating permit for those furnaces melting metal or processing molten metal.
- 2) 40 CFR Part 63 Subpart MMMM, *National Emission Standards for Hazardous Air Pollutants: Surface Coating of Miscellaneous Metal Parts and Products*, does not apply to emission units covered by this permit but is contained in the operating permit for the extrusion and painting operations.
- 3) 40 CFR Part 63 Subpart Q, *National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers*, does not apply since the installation does not use chromium-based treatment chemicals in its cooling towers.

NESHAP Applicability

40 CFR Part 61, Subpart M, *National Emission Standard for Asbestos*, applies to the installation because of the renovation and demolition parts of the subpart which makes the subpart applicable to all sources. It is included as a core permit requirement.

Other Regulatory Determinations

- 1) In June of 1998, Part 70 Operating Permit Number 009-0005-001 was issued to Wells Aluminum Corporation. Since that time, the installation was purchased by Hydro Aluminum North America. Hydro Aluminum kept all existing processes in operation but divided the installation into two separate operating entities: secondary aluminum production operations (Hydro Aluminum Metal Products) and extrusion and painting operations (Hydro Aluminum North America). The accounting, billing and services of the two entities are operated under separate operational divisions. Scrap from extrusion and painting is sold to secondary aluminum production as raw material, and the resulting product is sold to extrusion and painting as raw material for that process. Each entity has a different responsible official that cannot sign for or be responsible for activities at the other entity. As such, two separate Part 70 operating permits are being issued to Hydro Aluminum for these operations. This operating permit covers emission units associated with the extrusion and painting operations.
- 2) Even though separate operating permits are being issued for the two entities that make up the installation, the potential to emit for the two entities must be combined to determine both Title V and MACT standard

applicability. All operations are owned by the same parent company and as such, cannot be considered to be under separate control even though they may be operating independently of each other. The parent company would always have the authority to influence operations of each entity. Since the two entities are located on contiguous property and are considered to be under common control, the potential emissions of each entity must be combined to determine the potential emissions for the installation. The potential emissions of the installation, not each individual entity, are used to determine regulation applicability (specifically for Title V and MACT standards).

- 3) The following emission units were included in this operating permit as Emission Units Without Limitations. The reasons they were not included as significant emission units are explained below.

Emission Unit Description	Explanation
Dross room Two Presses Billet saws Wood saws for wood spacers and bundlers Cutback saws (aluminum) Acetylene torches Reclaim building cable stripper	Based on engineering judgment, it was determined that only particulate matter is emitted from this operation and that potential emissions are less than 0.5 lbs/hr. As such, no regulations apply to this emission unit.
300-gallon gasoline storage tank 200-gallon kerosene storage tank 300-gallon solvent storage tank 500-gallon diesel storage tank 500-gallon hydraulic oil storage tank 55-gallon oil drum	VOC emissions (possibly including some HAPs) are the only emissions generated from this emission unit. As described earlier in the Statement of Basis, none of the NSPS for tanks apply to this storage vessel. In addition, there are no Missouri regulations limiting VOC emissions applicable to this emission unit.
Two maintenance parts degreaser (Stoddard solvent)	VOC emissions (possibly including some HAPs) are the only emissions generated from these emission units. There are no regulations governing these emissions.
Electric graphite insert oven (installed 1987)	Currently, this oven has a dual purpose: a) Removal of synthetic casting oil from graphite rings. Emissions do result from the burning off of the oil. However, the installation is in the process of phasing out this use. In addition, there are only minimal amounts of oil on the graphite rings so emissions are negligible. b) Drying of mold components that are coated with a water based release agent. Only water vapor is driven off of the mold components. The release agent is left behind on the mold and results in no additional emissions. For these reasons, this oven did not warrant consideration in the operating permit.
Cooling towers	Emissions from these emission units are fugitive particulate matter. The only applicable regulation, 10 CSR 10-6.170, is already included in the operating permit as a plantwide condition.
Graphite spray used in the casting department	VOC emissions are the only emissions generated from these emission units. There are no regulations governing these emissions.

- 4) In 2000, Hydro Aluminum replaced the 26 MMBtu/hr burner in the Aluminum Melting Furnace (EU0010) with two 23.5 MMBtu/hr burners. The cost to make this change did not exceed 50% of the fixed capital

cost of a comparable entirely new furnace. As such, the furnace is considered an existing emission unit since the furnace itself was installed in 1970 (prior to February 24, 1971), and is therefore subject to the existing emission standards of regulations that differentiate between new and existing emission units.

5) 10 CSR 10-3.060, *Maximum Allowable Emissions of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating*

a) Installation Heat Input Determination

The following represents the installation's heat input (Q) used to determine the particulate matter emission limit associated with this rule. Since all operations on site are considered one installation, the heat input is based on those units covered in both this permit and those covered by the extrusion and painting permit (Operating Permit Number 2003-01-004).

Emission Unit	Emission Unit Description	Heat Input (MMBtu/hr)
EU0040	East Homogenizing Furnace	25.2
EU0050	West Homogenizing Furnace	25.2
Total Heat Input for this Permit (OP 2003-01-005)		50.4
Total Heat Input for OP 2003-01-004		35.5
Total Heat Input for the Installation		85.9

The heat inputs of EU0010, EU0020 and EU0030 were not included in the installation's total heat input because they do not meet the definition of an indirect heating source.

b) Particulate Matter Emission Limit Determination

Since EU0040 and EU0050 were installed after February 24, 1971, they are considered new indirect heating sources. As such, their particulate matter (PM) emission limit (E) is calculated as follows.

$$E = 1.31(Q)^{-0.338}$$

$$E = 0.29 \text{ lbs of PM/MMBtu of heat input}$$

Both units are subject to the same emission limitation. Compliance calculations can be found in Attachment K.

6) 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*

This rule was not included in the operating permit for three emission units covered by this permit: EU0040 East Homogenizing Furnace, EU0050 West Homogenizing Furnace and EU0060 Casting Pit Fugitives. The primary emissions from Emission Units EU0040 and EU0050 that could cause opacity issues are from the combustion of natural gas and propane. Based on a decision/agreement between EPA Region VII, Air Pollution Control Program Enforcement and Air Pollution Control Program Permitting, 10 CSR 10-6.220 is not being included in Title V Permits for natural gas or propane combustion units because by the nature of the fuel no opacity exceedances would ever be expected under normal operating conditions. Emissions from Emission Unit EU0060 are fugitive to the building. As such, the rule was not included in the operating permit for that emission unit either.

7) 10 CSR 10-6.260, *Restriction of Emission of Sulfur Compounds*

The rule is included in the operating permit for the units listed in the table below. All of these units are in compliance with the rule as demonstrated.

Emission Unit	Emission Unit Description	SO ₂ Emission Factor ¹	SO ₂ Emissions	SO ₂ Limit
EU0010 EU0030	Al Melt Furnace #1 ² Holding Furnace ²	Natural Gas 0.6 lb/MMCF AP42 Tbl 1.4-2 (07/98)	0.33 ppmv ³	2000 ppmv
		Propane 0.10S lb/10 ³ gal; S=0.18 AP42 Tbl 1.5-1 (10/96)	0.12 ppmv ³	2000 ppmv
EU0020	Al Melt Furnace #2 ²	Natural Gas 0.6 lb/MMCF AP42 Tbl 1.4-2 (07/98)	0.33 ppmv ³	500 ppmv
		Propane 0.10S lb/10 ³ gal; S=0.18 AP42 Tbl 1.5-1 (10/96)	0.12 ppmv ³	500 ppmv
EU0040 EU0050	E. Homo Furnace W. Homo Furnace	Natural Gas 0.6 lb/MMCF AP42 Tbl 1.4-2 (07/98)	0.0006 lb/MMBtu ⁴	8.0 lb/MMBtu
		Propane 0.10S lb/10 ³ gal; S=0.18 AP42 Tbl 1.5-1 (10/96)	0.00002 lb/MMBtu ⁴	8.0 lb/MMBtu
EU0060	Casting Pit Fugitives ⁵	142S lb/10 ³ gal; S=1 AP42 Tbl 1.3-1 (09/98)	592 ppmv ⁶	2000 ppmv

¹S = the sulfur content of propane in terms of gr/100 ft³ of gas vapor. The APCP allows a default sulfur content of propane of 0.00002% which equates to approximately 0.18 gr/100 ft³.

²It is assumed that emissions of SO_x from the two melting furnaces and the holding furnace are due solely to the combustion of natural gas and propane since neither AP42 Section 12.8 for Secondary Aluminum Operations nor the Source Classification Codes associated with Secondary Metal Production – Aluminum in FIRE 6.23 indicate SO_x emissions from metal processing.

³General Equation: ppmv SO₂ = SO₂ Emission Factor ÷ Heat Content ÷ F factor ÷ Conversion Factor

- 1) The SO₂ emission factor is the emission factor presented in the table. It assumes that all sulfur in the fuel is converted to SO₂ emissions.
- 2) The heat content of natural gas is 1020 MMBtu/MMCF (AP42 Tbl 1.4-2 footnote a). The heat content of propane is 91.5 MMBtu/10³ gallons (AP42 pg 1.5-1).
- 3) The F factor is the ratio of gas volume of products of combustion to the heat content of the fuel. For natural gas, the F factor is 10,610 wscf/MMBtu. For propane, the F factor is 10,200 wscf/MMBtu. (40 CFR Part 60 Appendix A Method 19 Tbl 19-2)
- 4) The conversion factor is 1.660E-7 lb/scf per ppmv (40 CFR Part 60 Appendix A Method 19 Tbl 19-1).

⁴General Equation: lb/MMBtu SO₂ = SO₂ Emission Factor ÷ Heat Content

- 1) The SO₂ emission factor is the emission factor presented in the table. It assumes that all sulfur in the fuel is converted to SO₂ emissions.
- 2) The heat content of natural gas is 1020 MMBtu/MMCF (AP42 Tbl 1.4-2 footnote a). The heat content of propane is 91.5 MMBtu/10³ gallons (AP42 pg 1.5-1).

⁵Synthetic oil is used in the casting process. The oil is burned due to the heat of the molten metal. For lack of better data and as used in the 2001 EIQ report, emission factors for the combustion of distillate oil in external combustion sources are used to estimate emissions from the burning of the oil.

⁶General Equation: ppmv SO₂ = SO₂ Emission Factor ÷ Heat Content ÷ F factor ÷ Conversion Factor

- 1) The SO₂ emission factor is the emission factor presented in the table. It assumes that all sulfur in the fuel is converted to SO₂ emissions.
- 2) The heat content of distillate oil is 140 MMBtu/10³ gallons (AP42 pg A-5 (01/95)).
- 3) The F factor is the ratio of gas volume of products of combustion to the heat content of the fuel. For distillate oil, the F factor is 10,320 wscf/MMBtu. (40 CFR Part 60 Appendix A Method 19 Tbl 19-2)
- 4) The conversion factor is 1.660E-7 lb/scf per ppmv (40 CFR Part 60 Appendix A Method 19 Tbl 19-1).

AP42 Tables 1.4-2 and 1.5-1 assume all sulfur is converted to SO₂ and Table 1.3-1 indicates that the SO₃ emission factor is significantly lower than the SO₂ emission factor. SO₃ emissions are considered insignificant, and it is highly unlikely that the limitations of 10 CSR 10-6.260(3)(B) will ever be exceeded.

6. 10 CSR 10-6.400, *Restriction of Emission of Particulate Matter from Industrial Processes*
- a) This rule was not included as an applicable regulation for the homogenizing furnaces (EU0040 and EU0050). The homogenizing furnaces do not melt metal but instead are used as annealing furnaces to help “cure” the castings. The only particulate matter emissions from these furnaces are from fuel combustion. Since indirect heating is specifically exempted in the rule, it was not included in the operating permit for these two emission units.
 - b) As the name implies, Casting Pit Fugitives (EU0060) is a source of fugitive emissions which is also specifically exempted in the rule. Fugitive emissions are covered under 10 CSR 10-6.170.
 - c) The rule does apply to the aluminum melting furnaces (EU0010 and EU0020) and the holding furnace (EU0030). Since the process weight rate into each emission unit is less than 30 tons per hour, the maximum allowable pound per hour particulate matter emission limit is calculated for each emission unit as described below.

Maximum Allowable PM Emissions = $E \text{ (lb/hr)} = 4.1(P)^{0.67}$ if $P \leq 30 \text{ tons/hr}$

Emission Unit	Process Weight Rate (P) (tph)	Allowable Emission Rate Limit (E) (lb/hr)
EU0010	11.333	20.85
EU0020	11.333	20.85
EU0030	11.96	21.62

There are no particulate matter control devices associated with these emission units. Compliance calculations can be found in Attachment J. Due to the similar design and capacity of the two melting furnaces, the emission factor calculated from EU0010 stack test results was also used in the compliance calculations for EU0020.

Stack test data from a similar facility was used in the compliance calculations for EU0030. The installation provided data indicating that the maximum particulate matter emission rate from melting, in this case remelting, in a similar unit was 3.0 lb/hr. Due to lack of published emission factors, the emission rate from the test was used in the compliance calculations for the holding furnace.

- d) Section (3)(A)4. of 10 CSR 10-6.400 limits the concentration of particulate matter to 0.30 grains per standard cubic foot of exhaust gases. Compliance with this section was shown through stack testing performed on March 6, 1996 for EU0010. Since the two melting furnaces are of similar design and capacity, the results of the 1996 stack test are also accepted as the compliance demonstration for EU0020.

The compliance calculations for EU0030 can be found in Attachment J. The flow rate used in the compliance calculations is from the 2001 EIQ. It was assumed that this flow rate is in terms of actual cubic feet per minute (ACFM) and was converted to dry standard cubic feet per minute (DSCFM) assuming the same moisture content and exhaust pressure of EU0010.

DSCFM for EU0030 =
 $ACFM \times [(460^\circ R + 70^\circ F) \div (460^\circ R + \text{Temp}^\circ F)] \times [\text{Pressure (in Hg)} \div 29.92 \text{ in Hg}] \times (1 - \text{Moisure Content})$

$2827 \text{ acfm} \times [(460^\circ R + 70^\circ F) \div (460^\circ R + 490^\circ F)] \times [28.34 \div 29.92 \text{ in Hg}] \times (1 - 0.023) = 1460 \text{ dscfm}$

Other Regulations Not Cited in the Operating Permit or the Above Statement of Basis

Any regulation which is not specifically listed in either the Operating Permit or in the above Statement of Basis does not appear, based on this review, to be an applicable requirement for this installation for one or more of the following reasons:

- 1) The specific pollutant regulated by that rule is not emitted by the installation;
- 2) The installation is not in the source category regulated by that rule;
- 3) The installation is not in the county or specific area that is regulated under the authority of that rule;
- 4) The installation does not contain the type of emission unit which is regulated by that rule;
- 5) The rule is only for administrative purposes.

Should a later determination conclude that the installation is subject to one or more of the regulations cited in this Statement of Basis or other regulations which were not cited, the installation shall determine and demonstrate, to the Air Pollution Control Program's satisfaction, the installation's compliance with that regulation(s). If the installation is not in compliance with a regulation which was not previously cited, the installation shall submit to the Air Pollution Control Program a schedule for achieving compliance for that regulation(s).

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