



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL MODIFICATION
CUYAHOGA COUNTY**

CERTIFIED MAIL

Street Address:

122 S. Front Street

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

Mailing Address:

Lazarus Gov. Center
P.O. Box 1049

Application No: 13-03671

DATE: 6/29/2004

Re-melt Services Inc
Drew Heideloff
1918 E 55th St
Cleveland, OH 44103

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

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

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, Ohio 43215

Sincerely,

Michael W. Ahern

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

CC: USEPA

CLAA



**Permit To Install
Terms and Conditions**

**Issue Date: 6/29/2004
Effective Date: 6/29/2004**

FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 13-03671

Application Number: 13-03671
APS Premise Number: 1318008545
Permit Fee: **\$400**
Name of Facility: Re-melt Services Inc
Person to Contact: Drew Heideloff
Address: 1918 E 55th St
Cleveland, OH 44103

Location of proposed air contaminant source(s) [emissions unit(s)]:
**6560 Juniata Ave
Cleveland, Ohio**

Description of proposed emissions unit(s):
Modification to classify the SAPU as a Sweat Furnace per 40 CFR 63.

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

This permit is granted subject to the conditions attached hereto.


Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

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

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Records Retention Requirements

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

4. Inspections and Information Requests

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

representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

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

6. Permit Transfers

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

7. Air Pollution Nuisance

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

8. Termination of Permit to Install

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

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions

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and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

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

10. Public Disclosure

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

11. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

12. Best Available Technology

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

13. Source Operation and Operating Permit Requirements After Completion of Construction

a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter

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PM	14.68
PM10	13.98
SO ₂	0.066
NO _x	9.86
VOC	0.464
CO	0.262
HCl	0.095
HF	0.041

Dioxin/Furan	5.0 x 10 ⁻⁸ TPY D/F TEQ 0.80 ng of D/F TEQ per dscm (3.5 x 10 ⁻¹⁰ gr per dscf) at 11 percent O ₂
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PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property,
and/or Equipment

Cleaning operation

P901 - Aluminum melting process (sweat furnace) consisting of a 3000 lbs/hr capacity reveratory furnace, and a holding well for molten metal.

Modified

The terms and conditions of this permit supercede the terms and conditions of PTI 13-03671 issued on 8/15/2000.

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PTI A

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Emissions Unit ID: P901

<u>Applicable Rules/Requirements</u>	National Emission Stds. for Secondary Aluminum Processing Facilities	<u>Applicable Emissions Limitations/Control Measures</u>
OAC rule 3745-31-05(A)(3)		7.34 tpy PE 1.68 lbs/hr PE
		6.99 tpy PM10 1.60 lbs/hr PM10
		0.033 tpy SO ₂ 0.0075 lbs/hr SO ₂
		4.93 tpy NO _x 1.13 lbs/hr NO _x
	OAC rule 3745-17-07(A)	0.232 tpy VOC 0.053 lbs/hr VOC
		0.131 tpy CO 0.030 lbs/hr CO
	OAC rule 3745-17-07(B)(1)	0.048 tpy Hcl 1.82 lbs/hr HCl
		0.021 tpy HF 0.79 lbs/hr HF
	OAC rule 3745-17-08(B)	Visible emissions from the stack servicing this emissions unit shall not exceed 10% opacity, as a 6-minute average.
	OAC rule 3745-17-11(A)(2)	Visible fugitive dust emissions shall not exceed 10% opacity, as a 3-minute average.
		The requirements of this rule also include compliance with the

Re-me

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requirements of OAC rule
3745-17-08(B), and 40CFR Part 63
Subpart RRR.

Dioxin/Furans: 0.8 nanograms (ng)
of D/F TEQ per dscm (3.5×10^{-10}
gr per dscf) at 11 percent oxygen
(O₂)

(See Section A.2. b.)

(See B.1, B.2, B.3, and B.4)

2.5×10^{-8} TPY D/F TEQ

The emission limitation specified by
this rule is less stringent than the
emission limitation established
pursuant to OAC rule
3745-31-05(A)(3).

The emission limitation specified by
this rule is less stringent than the
emission limitation established
pursuant to OAC rule
3745-31-05(A)(3).

This emission unit must employ
RACM.
See Section A.2. a.

The emission limitation specified by
this rule is less stringent than the
emission limitation established
pursuant to OAC rule
3745-31-05(A)(3).

2. Additional Terms and Conditions

- 2.a The permittee shall minimize or eliminate visible particulate emissions through employment of reasonably available control measures (RACM) in order to prevent the fugitive dust from becoming airborne.
- 2.b In accordance with 40 CFR 63.1505(f)(1), the permittee is not required to conduct a performance test to demonstrate compliance with the emissions standards listed above in section A.1 above, provided that the permittee operates and maintains an afterburner with a design residence time of 0.8 seconds or greater and an operating temperature of 1600 °F or greater.

B. Operational Restrictions

1. The permittee shall prepare and submit before the Cleveland Division of Air Quality (CDAQ) a written operation, maintenance, and monitoring (OM&M) plan for the aluminum melting operation as describe in 40CFR, 63.1510(b). The deadline for the plan will be within 90 days after the issuance of this permit.
2. In accordance with 40 CFR 63.1506(h), the permittee, operating a sweat furnace with emissions controlled by an afterburner, must:
 - a. Maintain the 3-hour block average operating temperature of each afterburner at or above:
 - i. the average temperature established during the performance test; or,
 - ii. 1600 °F if a performance test was not conducted, and the afterburner meets the specifications of 40 CFR 63.1505(f)(1).
 - b. Operate each afterburner in accordance with the OM&M plan per 40 CFR 63.1510.
3. The permittee shall operate the reverbatory furnace within the range of charge materials, contaminant levels, and parameter values established in the manufacturer's process design specifications and according to the work practice/pollution prevention measures documented in the OM&M plan.
4. The maximum weekly furnace cleaning operating hours for this emissions unit shall not exceed one hour or it's equivalent of 26 hours per year.

C. Monitoring and/or Recordkeeping Requirements

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1. In accordance with 40 CFR 63.1510(g), the following are requirements that apply to the emission unit when using an afterburner to comply with the requirements of 40 CFR 63, Subpart RRR:

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- a. The permittee must install, calibrate, maintain, and operate a device to continuously monitor and record the operating temperature of the afterburner consistent with the requirements for continuous monitoring systems in subpart A of 40 CFR 63.
- b. The temperature monitoring device must meet each of these performance and equipment specifications:
 - i. the temperature monitoring device must be installed at the exit of the combustion zone of each afterburner;
 - ii. the monitoring system must record the temperature in 15-minute block averages and determine and record the average temperature for each 3-hour block period;
 - iii. the recorder response range must include zero and 1.5 times the average temperature established according to the requirements in 40 CFR 63.1512(m); and,
 - iv. the reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator.
- c. The permittee must conduct an inspection of each afterburner at least once a year and record the results. At a minimum, an inspection must include:
 - i. inspection of all burners, pilot assemblies, and pilot sensing devices for proper operation and clean pilot sensor;
 - ii. inspection for proper adjustment of combustion air;
 - iii. inspection of internal structures (e.g., baffles) to ensure structural integrity;
 - iv. inspection of dampers, fans, and blowers for proper operation;
 - v. inspection for proper sealing;
 - vi. inspection of motors for proper operation;
 - vii. inspection of combustion chamber refractory lining and clean and replace lining as necessary;
 - viii. inspection of afterburner shell for corrosion and/or hot spots;

- ix. documentation, for the burn cycle that follows the inspection, that the afterburner is operating properly and any necessary adjustments have been made; and,

- x. verification that the equipment is maintained in good operating condition.
 - xi. Following an equipment inspection, all necessary repairs must be completed in accordance with the requirements of the OM&M plan.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any abnormal visible particulate emissions from the stack serving this emissions unit. The presence or absence of any abnormal visible emissions shall be noted in an operations log. If abnormal visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any abnormal visible emission incident; and
 - e. any corrective actions taken to eliminate the abnormal visible emissions.
3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any abnormal visible fugitive particulate emissions from the building containing this emissions unit. The presence or absence of abnormal any visible emissions shall be noted in an operations log. If abnormal visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any abnormal visible emission incident; and
 - e. any corrective actions taken to eliminate the abnormal visible emissions.
4. The permittee shall maintain a weekly as well as an annual record of the cleaning operating hours for this emissions unit.
5. The permittee must maintain records as required by 40 CFR 63.1517(a).
6. In accordance with 40 CFR 63.1517(b)(2), for emissions units controlled by and afterburner, the permittee must maintain records of:

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- a. 15-minute block average afterburner operating temperature, including any period when the average temperature in any 3-hour block period falls below the compliant operating parameter value with a brief explanation of the cause of the excursion and the corrective action taken; and,
 - b. records of annual afterburner inspections.
7. The permittee must maintain current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including:
- a. startup, shutdown, and malfunction plan; and,
 - b. OM&M plan.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any abnormal visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the abnormal visible particulate emissions. These reports shall be submitted to CDAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit semiannual written reports which (a) identify all days during which any visible fugitive particulate emissions were observed escaping from the building containing this emissions unit and (b) describe any corrective actions taken to eliminate the abnormal visible fugitive particulate emissions. These reports shall be submitted to CDAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.
3. The permittee shall submit annual written reports which identify any exceedances of the weekly cleaning operating hours limitation, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year.
4. In accordance with 40 CFR 63.1516(b), the permittee shall submit semiannual excess emission/summary reports within 60 days after the end of each 6-month period. Each report must contain the information specified in 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.

A report must be submitted if any of these conditions occur during a 6-month reporting period:

- a. an excursion of a compliant process or operating parameter value or range (e.g.,

afterburner operating temperature or residence time);

- b. 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); and
- c. an affected source was not operated according to the requirements of 40 CFR 63, Subpart RRR.

The permittee must submit the results of any performance test conducted during the reporting period, if applicable, 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.

5. In accordance with 40 CFR 63.1516(a), 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, the plan must include:
 - a. procedures to determine and record the cause of the malfunction and the time the malfunction began and ended; and,
 - 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.
6. In accordance with 40 CFR 63.1516(c), for the purpose of annual certifications of compliance, the permittee must certify continuing compliance based upon, but not limited to, the following conditions:
 - a. any period of excess emissions, as defined in paragraph (b)(1) of 40 CFR 63.1516, that occurred during the year were reported as required; and,
 - b. all monitoring, recordkeeping, and reporting requirements were met during the year.

E. Testing Requirements

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

0.80 nanogram (ng) of D/F TEQ per dscm (3.5×10^{-10} gr per dscf) at 11 percent oxygen (O₂)

Applicable Compliance Method:

Per 40 CFR 63.1505(f)(1), performance testing is not required if the conditions listed in Section A.2.b above are met.

If required, compliance with this limitation shall be demonstrated in accordance with emission testing using 40 CFR Part 60, Appendix A, Method 23 and the requirements in 40 CFR 63.1512(f) and 63.1513. Testing shall be conducted every 5 years following the initial performance test.

1.b Emission Limitation:

7.34 tpy PE
1.68 lbs/hr PE

Applicable Compliance Method:

This limit is based on the allowable hourly emission limit (1.68 lbs/hr) multiplied by the maximum possible operating hours (8,760 hr/yr), and divided by 2,000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

Compliance with the PE emission limits shall be based on calculations using the appropriate AP-42 emission factor (1.10 lb/ton) multiplied by the operating process weight rate (ton/hr), or otherwise in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures in OAC rule 3745-17-03(B)(10), if required.

1.c Emission Limitation:

6.99 tpy PM10
1.60 lb/hr PM10

This limit is based on the allowable hourly emission limit (1.60 lbs/hr) multiplied by the maximum possible operating hours (8,760 hr/yr), and divided by 2,000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

Compliance with the PM10 emission limits shall be based on calculations using the appropriate AP-42 emission factor (1.07 lb/ton) multiplied by the operating process weight rate (ton/hr), or otherwise in accordance with 40 CFR Part 60, Appendix A, Method 201, if required.

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PTI A

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1.d Emission Limitation:

0.033 tpy SO₂

0.0075 lb/hr SO₂

Applicable Compliance Method:

This limit is based on the allowable hourly emission limit (0.0075 lbs/hr) multiplied by the maximum possible operating hours (8,760 hr/yr), and divided by 2,000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

Compliance with the SO₂ emission limits shall be based on calculations using the appropriate emission factor (0.001 lb/10⁶ BTU) multiplied by the total heat input to the process (BTU/hr), or otherwise in accordance with 40 CFR Part 60, Appendix A, Method 6, if required.

1.e Emission Limitation:

4.93 tpy NO_x

1.13 lbs/hr NO_x

Applicable Compliance Method:

This limit is based on the allowable hourly emission limit (1.13 lbs/hr) multiplied by the maximum possible operating hours (8,760 hr/yr), and divided by 2,000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

Compliance with the NO_x emission limits shall be based on calculations using the appropriate emission factor (0.150 lb/10⁶ BTU) multiplied by the total heat input to the process (BTU/hr), or otherwise in accordance with 40 CFR Part 60, Appendix A, Method 7, if required.

1.f Emission Limitation:

0.232 tpy VOC emissions

0.053 lb/hr VOC

Applicable Compliance Method:

This limit is based on the allowable hourly emission limit (0.053 lbs/hr) multiplied by the maximum possible operating hours (8,760 hr/yr), and divided by 2,000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

Compliance with the VOC emission limits shall be based on calculations using the appropriate

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emission factor (0.007 lb/10⁶ BTU) multiplied by the total heat input to the process (BTU/hr), or otherwise in accordance with 40 CFR Part 60, Appendix A, Method 25, if required.

1.g Emission Limitation:

0.131 tpy CO emissions
0.030 lbs/hr CO

Applicable Compliance Method:

This limit is based on the allowable hourly emission limit (0.030 lbs/hr) multiplied by the maximum possible operating hours (8,760 hr/yr), and divided by 2,000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

Compliance with the CO emission limits shall be based on calculations using the appropriate emission factor (0.004 lb/10⁶ BTU) multiplied by the total heat input to the process (BTU/hr), or in accordance with 40 CFR Part 60, Appendix A, Method 10, if required.

1.h Emission Limitation

0.048 tpy HCl emissions
1.82 lbs/hr HCl

Applicable Compliance Method:

This limit is based on the allowable hourly emission limit (1.82 lbs/hr) multiplied by the maximum possible furnace operating cleaning hours (26 hr/yr) as stated in Section C.4., and divided by 2,000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

Compliance with the HCl emission limits shall be based on recordkeeping of the cleaning material (A.M.C.C., A-128) usage of 4.81 lb/week on a 52 week per year basis, or otherwise in accordance with 40 CFR Part 60, Appendix A, Method 26, if required.

1.i Emission Limitation

0.021 tpy HF emissions
0.79 lbs/hr HF

Applicable Compliance Method:

This limit is based on the allowable hourly emission limit (0.79 lbs/hr) multiplied by the

maximum possible furnace operating cleaning hours (26 hr/yr) as stated in Section C.4., and divided by 2,000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

Compliance with the HF emission limits shall be based on recordkeeping of the cleaning material (A.M.C.C., A-128) usage of 4.81 lb/week on a 52 week per year basis, or otherwise in accordance with 40 CFR Part 60, Appendix A, Method 26, if required.

1.j Emission Limitation:

Visible dust emissions from stack
10 % opacity as a 6-minute average

Applicable Compliance Method:

Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A , Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

1.k Emission Limitation:

Fugitive dust emissions
10 % opacity as a 3-minute average

Applicable Compliance Method:

Compliance shall be determined in accordance with USEPA Method 22, 40 CFR part 60.

1.l. Emission Limitation:

2.5×10^{-8} TPY D/F TEQ

Applicable Compliance Method:

Compliance shall be determined using the following one-time calculation

$(3.5 \times 10^{-10} \text{ gr/dscf}) \times (1900 \text{ dscf/min}) \times (525,600 \text{ min/yr}) \times (1 \text{ ton}/14 \times 10^6 \text{ gr}) = 2.5 \times 10^{-8} \text{ TPY D/F TEQ}$

F. Miscellaneous Requirements

None.

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PTI A

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PTI A

Modification Issued: 6/29/2004

Emissions Unit ID: P902

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>		<u>Applicable Rules/Requirements</u>
P902 - Aluminum melting process (sweat furnace) consisting of a 3000 lbs/hr capacity reverbatory furnace, and a holding well for molten metal.	Cleaning operation	OAC rule 3745-31-05(A)(3)
Modified		
The terms and conditions of this permit supercede the terms and conditions of PTI 13-03671 issued on 8/15/2000.		

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	OAC rule 3745-17-11(A)(2)	Applicable Emissions <u>Limitations/Control Measures</u>
<p>40 CFR Part 63, Subpart-RRR National Emission Stds. for Secondary Aluminum Processing Facilities</p>		<p>7.34 tpy PE 1.68 lbs/hr PE</p> <p>6.99 tpy PM10 1.60 lbs/hr PM10</p> <p>0.033 tpy SO₂ 0.0075 lbs/hr SO₂</p> <p>4.93 tpy NO_x 1.13 lbs/hr NO_x</p> <p>0.232 tpy VOC 0.053 lbs/hr VOC</p> <p>0.131 tpy CO 0.030 lbs/hr CO</p> <p>0.048 tpy Hcl 1.82 lbs/hr HCl</p>
<p>OAC rule 3745-17-07(A)</p>		<p>0.021 tpy HF 0.79 lbs/hr HF</p>
<p>OAC rule 3745-17-07(B)(1)</p>		<p>Visible emissions from the stack servicing this emissions unit shall not exceed 10% opacity, as a 6-minute average.</p> <p>Visible fugitive dust emissions shall not exceed 10% opacity, as a 3-minute average.</p>
<p>OAC rule 3745-17-08(B)</p>		<p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-08(B), and 40CFR Part 63</p>

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Subpart RRR.

Dioxin/Furans: 0.8 nanograms (ng) of D/F TEQ per dscm (3.5×10^{-10} gr per dscf) at 11 percent oxygen (O_2)

(See Section A.2. b.)

(See B.1, B.2, B.3, and B.4)

2.5×10^{-8} TPY D/F TEQ
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The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

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This emission unit must employ RACM.

See Section A.2..a.

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a The permittee shall minimize or eliminate visible particulate emissions through

employment of reasonably available control measures (RACM) in order to prevent the fugitive dust from becoming airborne.

- 2.b** In accordance with 40 CFR 63.1505(f)(1), the permittee is not required to conduct a performance test to demonstrate compliance with the emissions standards listed above in section A.1 above, provided that the permittee operates and maintains an afterburner with a design residence time of 0.8 seconds or greater and an operating temperature of 1600 °F or greater.

B. Operational Restrictions

1. The permittee shall prepare and submit before the Cleveland Division of Air Quality (CDAQ) a written operation, maintenance, and monitoring (OM&M) plan for the aluminum melting operation as describe in 40CFR, 63.1510(b). The deadline for the plan will be within 90 days after the issuance of this permit.
2. In accordance with 40 CFR 63.1506(h), the permittee, operating a sweat furnace with emissions controlled by an afterburner, must:
 - a. Maintain the 3-hour block average operating temperature of each afterburner at or above:
 - i. the average temperature established during the performance test; or,
 - ii. 1600 °F if a performance test was not conducted, and the afterburner meets the specifications of 40 CFR 63.1505(f)(1).
 - b. Operate each afterburner in accordance with the OM&M plan per 40 CFR 63.1510.
3. The permittee shall operate the reverbatory furnace within the range of charge materials, contaminant levels, and parameter values established in the manufacturer's process design specifications and according to the work practice/pollution prevention measures documented in the OM&M plan.
4. The maximum weekly furnace cleaning operating hours for this emissions unit shall not exceed one hour or it's equivalent of 26 hours per year.

C. Monitoring and/or Recordkeeping Requirements

1. In accordance with 40 CFR 63.1510(g), the following are requirements that apply to the emission unit when using an afterburner to comply with the requirements of 40 CFR 63, Subpart RRR:

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- a. The permittee must install, calibrate, maintain, and operate a device to continuously monitor and record the operating temperature of the afterburner consistent with the requirements for continuous monitoring systems in subpart A of 40 CFR 63.
- b. The temperature monitoring device must meet each of these performance and equipment specifications:
 - i. the temperature monitoring device must be installed at the exit of the combustion zone of each afterburner;
 - ii. the monitoring system must record the temperature in 15-minute block averages and determine and record the average temperature for each 3-hour block period;
 - iii. the recorder response range must include zero and 1.5 times the average temperature established according to the requirements in 40 CFR 63.1512(m); and,
 - iv. the reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the Administrator.
- c. The permittee must conduct an inspection of each afterburner at least once a year and record the results. At a minimum, an inspection must include:
 - i. inspection of all burners, pilot assemblies, and pilot sensing devices for proper operation and clean pilot sensor;
 - ii. inspection for proper adjustment of combustion air;
 - iii. inspection of internal structures (e.g., baffles) to ensure structural integrity;
 - iv. inspection of dampers, fans, and blowers for proper operation;
 - v. inspection for proper sealing;
 - vi. inspection of motors for proper operation;
 - vii. inspection of combustion chamber refractory lining and clean and replace lining as necessary;
 - viii. inspection of afterburner shell for corrosion and/or hot spots;

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- ix. documentation, for the burn cycle that follows the inspection, that the afterburner is operating properly and any necessary adjustments have been made; and,
 - x. verification that the equipment is maintained in good operating condition.
 - xi. Following an equipment inspection, all necessary repairs must be completed in accordance with the requirements of the OM&M plan.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any abnormal visible particulate emissions from the stack serving this emissions unit. The presence or absence of any abnormal visible emissions shall be noted in an operations log. If abnormal visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any abnormal visible emission incident; and
 - e. any corrective actions taken to eliminate the abnormal visible emissions.
3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any abnormal visible fugitive particulate emissions from the building containing this emissions unit. The presence or absence of abnormal any visible emissions shall be noted in an operations log. If abnormal visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any abnormal visible emission incident; and
 - e. any corrective actions taken to eliminate the abnormal visible emissions.
4. The permittee shall maintain a weekly as well as an annual record of the cleaning operating hours for this emissions unit.
5. The permittee must maintain records as required by 40 CFR 63.1517(a).
6. In accordance with 40 CFR 63.1517(b)(2), for emissions units controlled by and afterburner, the

permittee must maintain records of:

- a. 15-minute block average afterburner operating temperature, including any period when the average temperature in any 3-hour block period falls below the compliant operating parameter value with a brief explanation of the cause of the excursion and the corrective action taken; and,

- b. records of annual afterburner inspections.
7. The permittee must maintain current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including:
- a. startup, shutdown, and malfunction plan; and,
 - b. OM&M plan.

D. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any abnormal visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the abnormal visible particulate emissions. These reports shall be submitted to CDAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit semiannual written reports which (a) identify all days during which any visible fugitive particulate emissions were observed escaping from the building containing this emissions unit and (b) describe any corrective actions taken to eliminate the abnormal visible fugitive particulate emissions. These reports shall be submitted to CDAQ by January 31 and July 31 of each year and shall cover the previous 6-month period.
3. The permittee shall submit annual written reports which identify any exceedances of the weekly cleaning operating hours limitation, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year.
4. In accordance with 40 CFR 63.1516(b), the permittee shall submit semiannual excess emission/summary reports within 60 days after the end of each 6-month period. Each report must contain the information specified in 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.

A report must be submitted if any of these conditions occur during a 6-month reporting period:

- a. an excursion of a compliant process or operating parameter value or range (e.g., afterburner operating temperature or residence time);
- b. 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); and

- c. an affected source was not operated according to the requirements of 40 CFR 63, Subpart RRR.

The permittee must submit the results of any performance test conducted during the reporting period, if applicable, 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.

5. In accordance with 40 CFR 63.1516(a), 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, the plan must include:
 - a. procedures to determine and record the cause of the malfunction and the time the malfunction began and ended; and,
 - 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.
6. In accordance with 40 CFR 63.1516(c), for the purpose of annual certifications of compliance, the permittee must certify continuing compliance based upon, but not limited to, the following conditions:
 - a. any period of excess emissions, as defined in paragraph (b)(1) of 40 CFR 63.1516, that occurred during the year were reported as required; and,
 - b. all monitoring, recordkeeping, and reporting requirements were met during the year.

E. Testing Requirements

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

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0.80 nanogram (ng) of D/F TEQ per dscm (3.5×10^{-10} gr per dscf) at 11 percent oxygen (O₂)

Applicable Compliance Method:

Per 40 CFR 63.1505(f)(1), performance testing is not required if the conditions listed in Section A.2.b above are met.

If required, compliance with this limitation shall be demonstrated in accordance with emission testing using 40 CFR Part 60, Appendix A, Method 23 and the requirements in 40 CFR 63.1512(f) and 63.1513. Testing shall be conducted every 5 years following the initial performance test.

1.b Emission Limitation:

7.34 tpy PE
1.68 lbs/hr PE

Applicable Compliance Method:

This limit is based on the allowable hourly emission limit (1.68 lbs/hr) multiplied by the maximum possible operating hours (8,760 hr/yr), and divided by 2,000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

Compliance with the PE emission limits shall be based on calculations using the appropriate AP-42 emission factor (1.10 lb/ton) multiplied by the operating process weight rate (ton/hr), or otherwise in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures in OAC rule 3745-17-03(B)(10), if required.

1.c Emission Limitation:

6.99 tpy PM10
1.60 lb/hr PM10

This limit is based on the allowable hourly emission limit (1.60 lbs/hr) multiplied by the maximum possible operating hours (8,760 hr/yr), and divided by 2,000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

Compliance with the PM10 emission limits shall be based on calculations using the appropriate AP-42 emission factor (1.07 lb/ton) multiplied by the operating process weight rate (ton/hr), or otherwise in accordance with 40 CFR Part 60, Appendix A, Method 201, if required.

1.d Emission Limitation:

0.033 tpy SO₂
0.0075 lb/hr SO₂

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Applicable Compliance Method:

This limit is based on the allowable hourly emission limit (0.0075 lbs/hr) multiplied by the maximum possible operating hours (8,760 hr/yr), and divided by 2,000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

Compliance with the SO₂ emission limits shall be based on calculations using the appropriate emission factor (0.001 lb/10⁶ BTU) multiplied by the total heat input to the process (BTU/hr), or otherwise in accordance with 40 CFR Part 60, Appendix A, Method 6, if required.

1.e Emission Limitation:

4.93 tpy NO_x

1.13 lbs/hr NO_x

Applicable Compliance Method:

This limit is based on the allowable hourly emission limit (1.13 lbs/hr) multiplied by the maximum possible operating hours (8,760 hr/yr), and divided by 2,000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

Compliance with the NO_x emission limits shall be based on calculations using the appropriate emission factor (0.150 lb/10⁶ BTU) multiplied by the total heat input to the process (BTU/hr), or otherwise in accordance with 40 CFR Part 60, Appendix A, Method 7, if required.

1.f Emission Limitation:

0.232 tpy VOC emissions

0.053 lb/hr VOC

Applicable Compliance Method:

This limit is based on the allowable hourly emission limit (0.053 lbs/hr) multiplied by the maximum possible operating hours (8,760 hr/yr), and divided by 2,000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

Compliance with the VOC emission limits shall be based on calculations using the appropriate

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emission factor (0.007 lb/10⁶ BTU) multiplied by the total heat input to the process (BTU/hr), or otherwise in accordance with 40 CFR Part 60, Appendix A, Method 25, if required.

1.g Emission Limitation:

0.131 tpy CO emissions
0.030 lbs/hr CO

Applicable Compliance Method:

This limit is based on the allowable hourly emission limit (0.030 lbs/hr) multiplied by the maximum possible operating hours (8,760 hr/yr), and divided by 2,000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

Compliance with the CO emission limits shall be based on calculations using the appropriate emission factor (0.004 lb/10⁶ BTU) multiplied by the total heat input to the process (BTU/hr), or in accordance with 40 CFR Part 60, Appendix A, Method 10, if required.

1.h Emission Limitation

0.048 tpy HCl emissions
1.82 lbs/hr HCl

Applicable Compliance Method:

This limit is based on the allowable hourly emission limit (1.82 lbs/hr) multiplied by the maximum possible furnace operating cleaning hours (26 hr/yr) as stated in Section C.4., and divided by 2,000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

Compliance with the HCl emission limits shall be based on recordkeeping of the cleaning material (A.M.C.C., A-128) usage of 4.81 lb/week on a 52 week per year basis, or otherwise in accordance with 40 CFR Part 60, Appendix A, Method 26, if required.

1.i Emission Limitation

0.021 tpy HF emissions
0.79 lbs/hr HF

Applicable Compliance Method:

This limit is based on the allowable hourly emission limit (0.79 lbs/hr) multiplied by the maximum possible furnace operating cleaning hours (26 hr/yr) as stated in Section C.4., and

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divided by 2,000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

Compliance with the HF emission limits shall be based on recordkeeping of the cleaning material (A.M.C.C., A-128) usage of 4.81 lb/week on a 52 week per year basis, or otherwise in accordance with 40 CFR Part 60, Appendix A, Method 26, if required.

1.j Emission Limitation:

Visible dust emissions from stack
10 % opacity as a 6-minute average

Applicable Compliance Method:

Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

1.k Emission Limitation:

Fugitive dust emissions
10 % opacity as a 3-minute average

Applicable Compliance Method:

Compliance shall be determined in accordance with USEPA Method 22, 40 CFR part 60.

1.l. Emission Limitation:

2.5×10^{-8} TPY D/F TEQ

Applicable Compliance Method:

Compliance shall be determined using the following one-time calculation

$$(3.5 \times 10^{-10} \text{ gr/dscf}) \times (1900 \text{ dscf/min}) \times (525,600 \text{ min/yr}) \times (1 \text{ ton}/14 \times 10^6 \text{ gr}) = 2.5 \times 10^{-8} \text{ TPY D/F TEQ}$$

F. Miscellaneous Requirements

None.

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