



Street Address:

State of Ohio Environmental Protection Agency
Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:
Lazarus Gov.
Center

**RE: FINAL PERMIT TO INSTALL
STARK COUNTY
Application No: 15-01411**

CERTIFIED MAIL

DATE: 07/27/00

Albex Aluminum, Inc
Richard Pollock
PO Box 7337, 4416 Louisville Road
Canton, OH 44286-0449

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

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

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

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

Very truly yours,

Thomas G. Rigo, Manager
Field Operations and Permit Section
Division of Air Pollution Control

CC: USEPA

Canton LAA



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

**Permit To Install
Terms and Conditions**

**Issue Date: July 27, 2000
Effective Date: July 27, 2000**

FINAL PERMIT TO INSTALL 15-01411

Application Number: 15-01411
APS Premise Number: 1576001813
Permit Fee: **\$1600.00**
Name of Facility: Albex Aluminum, Inc
Person to Contact: Richard Pollock
Address: PO Box 7337 4416 Louisville Road
Canton, OH 442860449

Location of proposed air contaminant source(s) [emissions unit(s)]:
**4416 Louisville Road
Canton, Ohio**

Description of proposed emissions unit(s):
24 MMBtu/hr natural gas-fired aluminum smelting reverberatory furnace with baghouse.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

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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 Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping 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

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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 and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance

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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 are inadequate 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 prove to be inadequate 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 application must be made to the Director for the installation or modification of any other emissions unit(s).

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

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) days after commencing operation of the emissions unit(s) covered by this permit.

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14. Construction Compliance Certification

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

15. Fees

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

B. Permit to Install Summary of Allowable Emissions

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
Particulates	14.1
CO	0.88
NO_x	15.88
HCl	4.0
OC	18.4

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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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	40 CFR Part 63 Subpart RRR OAC rule 3745-17-07(A)(1)
P009 - 24 MMBtu/hr natural gas-fired aluminum smelting reverberatory furnace with lime-injected fabric filter. (For MACT rules, this is a group 1 furnace at an area source because it melts scrap that does not meet the definition of "clean scrap". Reactive flux is not used.)	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-07(A)(2)
		OAC rule 3745-17-08(B)
		OAC rule 3745-17-11

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Applicable Emissions
Limitations/Control Measures

Particulate emissions shall not exceed 3.22 lbs/hr and 14.1 tons/year.

Particulate emissions from the stack servicing this emissions unit shall not exceed 0.015 gr/dscf.

Carbon monoxide emissions shall not exceed 0.2 lb/hr and 0.88 ton/year.

Nitrogen oxide emissions shall not exceed 3.6 lbs/hr and 15.8 tons/year.

Visible emissions from the stack servicing this emissions unit shall not exceed 10% opacity, as a 6-minute average.

HCl emissions shall not exceed 0.9 lb/hr and 4.0 tons/yr.

Organic compound emissions shall not exceed 4.2 lbs/hr and 18.4 tons/yr.

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(2), 3745-17-08 (B) and 40 CFR Part 63 Subpart RRR.

See sections 2.a and 2.b below.

The emission limitation specified by

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

Visible emissions of fugitive dust coming from any opening in the building housing this emissions unit shall not exceed 20% opacity, as a 3-minute average.

This emissions unit must employ RACM.
See section B.1 below.

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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$$L_{cD/F} = \frac{\sum_{i=1}^n (L_{tiD/F} \times T_{ti})}{\sum_{i=1}^n T_{ti}}$$

2. Additional Terms and Conditions

2.a The permittee must not discharge or allow to be discharged to the atmosphere any 3-day, 24-hour rolling average emissions of D/F (dioxins and furans) in excess of:

Where,

$L_{tiD/F}$ = The D/F emission limit of 15 μg of D/F TEQ per Mg (2.1×10^{-4} gr of D/F TEQ per ton) of feed/charge for individual emissions unit for a group 1 furnace;

$L_{cD/F}$ = The D/F emission limit for the secondary aluminum processing unit; and

T_{ti} = The feed/charge rate for individual emission unit I; and

NOTE: Clean charge furnaces cannot be included in this calculation since they are not subject to the D/F limit.

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- 2.b.** The permittee of a secondary aluminum processing unit (SAPU) at a secondary aluminum production facility that is an area source may demonstrate compliance with the emission limits of paragraph 2.a. of this section by demonstrating that each emissions unit within the SAPU is in compliance with the emission limit of 15 μg of D/F TEQ per Mg (2.1×10^{-4} gr of D/F TEQ per ton) of feed/charge.
- 2.c.** On and after the date on which the initial performance test is conducted or required to be conducted, whichever date is earlier, the permittee must operate all new and existing affected sources and control equipment according to the requirements of this permit.
- 2.d.** The completion of the initial performance tests for secondary aluminum processing units SAPUs shall be considered to be the date of approval of the operation, maintenance and monitoring (OM&M) plan by the permitting authority.

B. Operational Restrictions

- 1. The permittee shall do the following:
 - a. design and install a system for the capture and collection of emissions from this emissions unit to meet the engineering standards for minimum exhaust rates as published by the American Conference of Governmental Industrial Hygienists in Chapters 3 and 5 of "Industrial Ventilation: A Handbook of Recommended Practice";
 - b. vent captured emissions through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to a fabric filter; and
 - c. operate each capture/collection system according to the procedures and requirements in the OM&M plan.
- 2. The permittee shall do the following:
 - a. except as provided in paragraph B.3 of this section, 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; and,
 - b. operate each weight measurement system or other weight determination procedure in accordance with the OM&M plan.
- 3. The permittee may choose to measure and record aluminum production weight from an affected source or emissions unit rather than feed/charge weight to an affected source or emissions unit,

provided that:

- a. the aluminum production weight, rather than feed/charge weight, is measured and recorded for all emission units within a SAPU; and,
 - b. all calculations to demonstrate compliance with the emission limits for SAPUs are based on aluminum production weight rather than feed/charge weight.
4. The permittee of a group 1 furnace with emissions controlled by a lime-injected fabric filter shall comply with the following:
- a. If a bag leak detection system is used to meet the monitoring requirements in 40 CFR 63.1510, the permittee must:
 - i. initiate corrective action within 1 hour of a bag leak detection system alarm;
 - ii. complete the corrective action procedures in accordance with the OM&M plan; and,
 - iii. operate each fabric filter system such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month block reporting period. In calculating this operating time fraction, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If the permittee takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken by the permittee to initiate corrective action.
 - b. Maintain the 3-hour block average inlet temperature for each fabric filter at or below the average temperature established during the performance test, plus 14 °C (plus 25 °F).
 - c. For a continuous lime injection system, maintain free-flowing lime in the hopper to the feed device at all times and maintain the lime feeder setting at the same level established during the performance test.
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 emissions 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.

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6. The permittee must provide and maintain easily visible labels posted at this group 1 furnace that identify the applicable emission limits and means of compliance, including:

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- a. the type of affected source or emissions unit (e.g., scrap dryer/delacquering kiln/decoating kiln, group 1 furnace, group 2 furnace, in-line fluxer); and,
 - 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 additional practices, and the applicable operating parameter ranges and requirements as incorporated in the OM&M plan.
7. This emissions unit shall not employ any reactive fluxes.

C. Monitoring and/or Recordkeeping Requirements

1. On and after the date the initial performance test is completed or required to be completed, whichever date is earlier, the permittee must monitor all control equipment and processes according to the following requirements found in terms and conditions C.2 through C.29 below.
2. The permittee must prepare and implement for each new or existing affected source and emissions unit, a written operation, maintenance, and monitoring (OM&M) plan. The permittee must submit the plan to the Canton local air agency. Any subsequent changes to the plan must be submitted to the Canton local air agency for review and approval. Pending approval by the Canton local air agency of an initial or amended plan, the permittee must comply with the provisions of the submitted plan. Each plan must contain the following information:
 - a. 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;
 - b. a monitoring schedule for each affected source and emissions unit;
 - c. 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 40 CFR 63.1505;
 - d. procedures for the proper operation and maintenance of monitoring devices or systems used to determine compliance, including:
 - i. calibration and certification of accuracy of each monitoring device, at least once every 6 months, according to the manufacturer's instructions; and,

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- ii. 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.

- e. 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.
 - f. corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the value or range established in term and condition C.2.a. of this section, including:
 - i. procedures to determine and record the cause of a deviation or excursion, and the time the deviation or excursion began and ended; and,
 - ii. procedures for recording the corrective action taken, the time corrective action was initiated, and the time/date corrective action was completed.
 - g. 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.
3. The permittee must inspect the labels for this group 1 furnace at least once per calendar month to confirm that posted labels as required by the operational standard in section B.6 are intact and legible.
 4. For the capture/collection system, the permittee must do the following:
 - a. install, operate, and maintain a capture/collection system for each affected source and emissions unit equipped with an add-on air pollution control device; and,
 - b. inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in section B.1 and record the results of each inspection.
 5. 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 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 Canton local air agency to determine the total weight of feed/charge to or aluminum production from the affected source or emissions unit.
 - 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 Canton local air agency for

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approval to use a device of alternative accuracy if the required accuracy cannot be achieved as a result

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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.

- 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 6 months.
6. The permittee must install, calibrate, maintain, and continuously operate a bag leak detection system as required in section B.4.a. The following requirements must be met by the permittee:
- a. the permittee must install and operate a bag leak detection system for each exhaust stack of a fabric filter;
 - b. each triboelectric bag leak detection system must be installed, calibrated, operated, and maintained according to the "Fabric Filter Bag Leak Detection Guidance," (September 1997). This document is available from the U.S. Environmental Protection Agency; Office of Air Quality Planning and Standards; Emissions, Monitoring and Analysis Division; Emission Measurement Center (MD-19), Research Triangle Park, NC 27711. This document also is available on the Technology Transfer Network (TTN) under Emission Measurement Technical Information Center (EMTIC), Continuous Emission Monitoring. Other bag leak detection systems must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations;
 - c. the bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grain per actual cubic foot) or less;
 - d. the bag leak detection system sensor must provide output of relative or absolute PM loadings;
 - e. the bag leak detection system must be equipped with a device to continuously record the output signal from the sensor;
 - f. the bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel;
 - g. for positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. For negative pressure or induced air fabric filters, the bag leak detector must be installed downstream of the fabric filter;

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- i. inspecting each feed hopper or silo at least once each 8-hour period and recording the results of each inspection. If lime is found not to be free-flowing during any of the 8-hour periods, the permittee must increase the frequency of inspections to at least once every 4-hour period for the next 3 days. The permittee may return to inspections at least once every 8-hour period if corrective action results in no further blockages of lime during the 3-day period; or

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- ii. subject to the approval of the Canton local air agency, installing, operating and maintaining a load cell, carrier gas/lime flow indicator, carrier gas pressure drop measurement system or other system to confirm that lime is free-flowing. If lime is found not to be free-flowing, the permittee must promptly initiate and complete corrective action; or
 - iii. subject to the approval of the Canton local air agency, installing, operating and maintaining a device to monitor the concentration of HCl at the outlet of the fabric filter. If an increase in the concentration of HCl indicates that the lime is not free-flowing, the permittee must promptly initiate and complete corrective action.
 - b. The permittee of a continuous lime injection system must record the lime feeder setting once each day of operation.
 - c. A permittee who intermittently adds lime to a lime-coated fabric filter must obtain approval from the Canton local air agency for a lime addition monitoring procedure. The Canton local air agency will not approve a monitoring procedure unless data and information are submitted establishing that the procedure is adequate to ensure that relevant emission standards will be met on a continuous basis.
9. A permittee of a secondary aluminum processing unit at a facility must include, within the OM&M plan prepared in accordance with 40 CFR 63.1510(b), the following information:
 - a. the identification of each emissions unit in the secondary aluminum processing unit;
 - b. the specific control technology or pollution prevention measure to be used for each emissions unit in the secondary aluminum processing unit and the date of its installation or application;
 - c. the emission limit calculated for each secondary aluminum processing unit and performance test results with supporting calculations demonstrating initial compliance with each applicable emission limit;
 - d. information and data demonstrating compliance for each emissions unit with all applicable design, equipment, work practice or operational standards of this subpart; and,
 - e. the monitoring requirements applicable to each emissions unit in a secondary aluminum processing unit and the monitoring procedures for daily calculation of the 3-day, 24-hour rolling average using the procedure in 40 CFR 63.1510(t).

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10. The SAPU compliance procedures within the OM&M plan may not contain any of the following provisions:
 - a. any averaging among emissions of differing pollutants;
 - b. the inclusion of any affected sources other than emissions units in a secondary aluminum processing unit;
 - c. the inclusion of any emissions unit while it is shutdown; or
 - d. the inclusion of any periods of startup, shutdown, or malfunction in emission calculations.
11. 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 Canton local air agency containing the information required by section C.9 and obtain approval of the Canton local air agency prior to implementing any revisions.
12. A permittee may demonstrate, through performance tests, that each individual emissions unit within the secondary aluminum production unit is in compliance with the applicable emission limits for the emissions unit.
13. The permittee of a lime-coated fabric filter that employs intermittent or noncontinuous lime addition may apply to the Administrator for approval of an alternative method for monitoring the lime addition schedule and rate based on monitoring the weight of lime added 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.
14. A permittee may submit an application to the Administrator for approval of alternate monitoring requirements to demonstrate compliance with the emission standards of 40 CFR Part 63 Subpart RRR, subject to the following provisions:
 - a. the Administrator will not approve averaging periods other than those specified in this section;
 - 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;
 - 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

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following information:

- i. data or information justifying the request, such as the technical or economic infeasibility, or the impracticality of using the required approach;
- 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,

- 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).
 - 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:
 - i. notice of the information and findings upon which the intended disapproval is based; and,
 - 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.
 - 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 40 CFR Part 63 Subpart RRR; and,
 - 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 this subpart.
15. 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 (40 CFR 63.1500) and this subpart (40 CFR Part 63 Subpart RRR). For these files, the permittee shall comply with the following:
- a. the permittee shall retain each record for at least 5 years following the date of occurrence, measurement, maintenance, corrective action, report, or record. The most recent of records must be maintained at the facility. The remaining 3 years of records may be retained off site;
 - b. the permittee may retain records on microfilm, computer disks, magnetic tape, or microfiche; and,
 - c. the permittee may report required information on paper or on a labeled computer disk

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using commonly available and EPA-compatible computer software.

16. For each affected source and emissions unit with emissions controlled by a fabric filter or a lime-injected fabric filter, the permittee shall maintain records of the following:
 - a. if a bag leak detection system is used, the number of total operating hours for the affected source or emissions unit during each 6-month reporting period, records of each alarm, the time of the alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action(s) taken; and,
 - b. if a continuous opacity monitoring system is used, records of opacity measurement data, including records where the average opacity of any 6-minute period exceeds 5 percent, with a brief explanation of the cause of the emissions, the time the emissions occurred, the time corrective action was initiated and completed, and the corrective action taken.
17. For this group 1 furnace, subject to the D/F emission standard with emissions controlled by a lime-injected fabric filter, the permittee shall maintain records of 15-minute block average inlet temperatures for each lime-injected fabric filter, including any period when the 3-hour block average temperature exceeds the compliant operating parameter value +14°C (+25°F), with a brief explanation of the cause of the excursion and the corrective action taken.
18. For each affected source and emissions unit with emissions controlled by a lime-injected fabric filter, the permittee shall maintain the following records:
 - a. records of inspections at least once every 8-hour period verifying that lime is present in the feeder hopper or silo and flowing, including any inspection where blockage is found, with a brief explanation of the cause of the blockage and the corrective action taken, and records of inspections at least once every 4-hour period for the subsequent 3 days. If flow monitors, pressure drop sensors or load cells are used to verify that lime is present in the hopper and flowing, records of all monitor or sensor output including any event where blockage was found, with a brief explanation of the cause of the blockage and the corrective action taken;
 - b. if lime feeder setting is monitored, records of daily inspections of feeder setting, including records of any deviation of the feeder setting from the setting used in the performance test, with a brief explanation of the cause of the deviation and the corrective action taken; and,
 - c. if lime addition rate for a noncontinuous lime injection system is monitored pursuant to the approved alternative monitoring requirements in 40 CFR 63.1510(v), records of the time

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and mass of each lime addition during each operating cycle or time period used in the performance test and calculations of the average lime addition rate (lb/ton of feed/charge).

19. For each continuous monitoring system, the permittee shall maintain records required by 40 CFR 63.10(c).
20. For each affected source and emissions unit subject to an emission standard in kg/Mg (lb/ton) of feed/charge, the permittee shall maintain records of feed/charge (or throughput) weights for each operating cycle or time period used in the performance test.

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21. The permittee shall maintain records of monthly inspections for proper unit labeling for each affected source and emission unit subject to labeling requirements.
22. The permittee shall maintain records of annual inspections of emission capture/collection and closed vent systems.
23. The permittee shall maintain records for any approved alternative monitoring or testing procedure.
24. The permittee shall maintain a current copy of all required plans, including any revisions, with records documenting conformance with the applicable plan, including:
 - a. startup, shutdown, and malfunction plan;
 - b. for major sources, OM&M plan; and,
 - c. site-specific secondary aluminum processing unit emission plan (if applicable).
25. The permittee shall maintain records 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 3-day, 24-hour rolling, average emissions.

D. Reporting Requirements

1. The permittee shall fulfill all reporting requirements as outlined in 40 CFR Part 63, Subpart A.
2. The permittee shall submit initial notifications to the Canton local air agency as described in the following paragraphs:
 - a. as required by 40 CFR Part 63.9(b)(1), the permittee must provide notification for an area source that subsequently increases its emissions such that the source is a major source subject to the standard;
 - b. as required by 40 CFR Part 63.9(b)(3), the permittee of a new or reconstructed affected source, or a source that has been reconstructed such that it is an affected source, that has an initial startup after the effective date of this subpart and for which an application for approval of construction or reconstruction is not required under 40 CFR Part 63.5(d), must provide notification that the source is subject to the standard;

- c. as required by 40 CFR 63.9(b)(5), after the effective date of this subpart, a permittee who intends to construct a new affected source or reconstruct an affected source subject to this subpart, or reconstruct a source such that it becomes an affected source subject to this subpart, must provide notification of the intended construction or 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:
 - i. the application must be submitted as soon as practicable before the construction or reconstruction is planned to commence (but no sooner than the effective date) if the construction or reconstruction commences after the effective date of this subpart; or
 - ii. the application must be submitted as soon as practicable before startup but no later than 90 days after the effective date of this subpart if the construction or reconstruction had commenced and initial startup had not occurred before the effective date.
 - d. as required by 40 CFR 63.9(d), the permittee must provide notification of any special compliance obligations for a new source;
 - e. 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 Canton local air agency 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; and,
 - f. as required by 40 CFR 63.9(g), the permittee must provide additional notifications for sources with continuous emission monitoring systems or continuous opacity monitoring systems.
3. The permittee shall submit a notification of compliance status report within 60 days after the startup of this emissions unit. The notification must be signed by the responsible official who must certify its accuracy. A complete notification of compliance status report must include the information specified in sections 2.a through 2.h below. 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. In a State with an approved operating permit program where delegation of authority under section 112(l) of the CAA has not been requested or approved, the permittee must provide duplicate notification to the applicable Regional Administrator. If a permittee submits the information specified in this section at different times or in different submittals, later submittals may refer to earlier submittals instead of duplicating and resubmitting the information previously submitted. A complete notification of compliance status

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report must include:

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- a. all information required in 40 CFR 63.9(h). The permittee must provide a complete performance test report for each affected source and emissions unit for which a performance test is required. A complete performance test report includes all data, associated measurements, and calculations (including visible emission and opacity tests);
 - b. the approved site-specific test plan and performance evaluation test results for each continuous monitoring system (including a continuous emission or opacity monitoring system);
 - c. unit labeling as described in 40 CFR 63.1506(b), including process type or furnace classification and operating requirements;
 - d. the compliant operating parameter value or range established for each affected source or emissions unit with supporting documentation and a description of the procedure used to establish the value (e.g., lime injection rate, total reactive chlorine flux injection rate, afterburner operating temperature, fabric filter inlet temperature), including the operating cycle or time period used in the performance test;
 - e. design information and analysis, with supporting documentation, demonstrating conformance with the requirements for capture/collection systems in 40 CFR 63.1506(c);
 - f. if applicable, analysis and supporting documentation demonstrating conformance with EPA guidance and specifications for bag leak detection systems in 40 CFR 63.1510(f);
 - g. approved OM&M plan (including site-specific monitoring plan for each group 1 furnace with no add-on air pollution control device); and,
 - h. startup, shutdown, and malfunction plan, with revisions.
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:
- a. procedures to determine and record the cause of the malfunction and the time the malfunction began and ended; and,

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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 emissions unit, and report the results in the notification of compliance status report as described in 40 CFR 63.1515(b). The permittee must conduct each performance test according to the requirements of the general provisions in subpart A of this part and this subpart. Permittees of affected sources located at facilities which are area sources are subject only to those performance testing requirements pertaining to D/F.
 - a. the permittee must conduct each test while the affected source or emissions 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;
 - b. each performance test for a continuous process must consist of 3 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 3 hours;
 - 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;
 - 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 emission units complete at least one (1) entire process operating cycle or for 24 hours, whichever is shorter; and,
 - 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 limit or standard.
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;
 - b. Method 2 for velocity and volumetric flow rate;
 - c. Method 3 for gas analysis;
 - d. Method 4 for moisture content of the stack gas;
 - e. Method 5 for the concentration of PM;
 - f. Method 9 for visible emission observations; and,

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- g. Method 23 for the concentration of D/F.
- 4. The permittee may use an alternative test method, subject to approval by the Administrator.

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5. The permittee of new or existing affected sources and emissions units must establish a minimum or maximum operating parameter value, or an operating parameter range for each parameter to be monitored as required by 40 CFR 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 40 CFR 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 (are) submitted;
 - b. the same test methods and procedures as required by this subpart were used in the test;
 - 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; and,
 - 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.
6. The permittee of a group 1 furnace that processes scrap other than clean charge materials with emissions controlled by a lime-injected fabric filter must conduct performance tests to measure emissions of PM and D/F at the outlet of the control device and emissions of HCl at the outlet (for the emission limit) or the inlet and the outlet (for the percent reduction standard).
7. 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. (Note: Since this emissions unit does not add reactive fluxes, an emission test for HCL is not required).
8. The permittee must conduct performance tests as described in sections E.9.a and E.9.b below. The results of the performance tests are used to establish emission rates in lb/ton of feed/charge for PM and $\mu\text{g TEQ/Mg}$ of feed/charge for D/F emissions from each emissions unit. A performance test is required for:
 - a. each group 1 furnace processing only clean charge to measure emissions of PM; and,
 - b. each group 1 furnace that processes scrap other than clean charge to measure emissions of PM and D/F and either:

9. During the emission test(s) conducted to determine compliance with emission limits in a kg/Mg (lb/ton) format, the permittee of an affected source or emissions unit, subject to an emission limit in a kg/Mg (lb/ton) of feed/charge format, must measure (or otherwise determine) and record the total weight of feed/charge to the affected source or emissions unit for each of the three test runs and calculate and record the total weight. A permittee who chooses to demonstrate compliance on the basis of the aluminum production weight must measure the weight of aluminum produced by the emissions unit or affected source instead of the feed/charge weight.
10. The permittee of this group 1 furnace using a lime-injected fabric filter must use the following procedures to establish an operating parameter value or range for the inlet gas temperature:
 - a. continuously measure and record the temperature at the inlet to the lime-injected fabric filter every 15 minutes during the D/F performance tests;
 - b. determine and record the 15-minute block average temperatures for the 3 test runs; and,
 - c. determine and record the 3-hour block average of the recorded temperature measurements for the 3 test runs.
11. The permittee of an affected source or emissions unit using a lime-injected fabric filter system must use the following procedures during the D/F tests to establish an operating parameter value for the feeder setting for each operating cycle or time period used in the performance test:
 - a. for continuous lime-injection systems, ensure that lime in the feed hopper or silo is free-flowing at all times; and,
 - b. record the feeder setting for the 3 test runs. If the feed rate setting varies during the runs, determine and record the average feed rate from the 3 runs.
12. The permittee of an affected source or emissions unit using a bag leak detection system must submit the information described in 40 CFR 63.1515(b)(6) as part of the notification of compliance status report to document conformance with the specifications and requirements in 40 CFR 63.1510(f).
13. The permittee of this group 1 furnace must submit the information described in 40 CFR 63.1515(b)(3) as part of the notification of compliance status report to document conformance with the operational standard in 40 CFR 63.1506(b).
14. The permittee of a new or existing affected source or emissions unit with an add-on control device must submit the information described in 40 CFR 63.1515(b)(2) as part of the notification of compliance status report to document conformance with the operational standard in 40 CFR 63.1506(c).

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15. Use Equation 7 to determine compliance with an emission limit for PM and D/F:

Where,

- E = Emission rate of PM or D/F, kg/Mg (lb/ton) of feed;
 C = Concentration of PM or D/F, g/dscm (gr/dscf);
 Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr);
 K₁ = Conversion factor, 1 kg/1,000 g (1 lb/7,000 gr); and
 P = Production rate, Mg/hr (ton/hr).

16. 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), available from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia, NTIS No. PB 90-145756.

$E_{\text{sub } c \text{ sub } \{D/F\}} = \{\text{sum from } \{i=1\} \text{ to } n (E_{\text{sub } ti \text{ sub } \{D/F\}} \text{ times } T_{\text{sub } ti})\} \text{ over } \{\text{sum from } \{i=1\} \text{ to } n (T_{\text{sub } ti})\}$

17. Use Equation 11 to compute the aluminum mass-weighted D/F emissions for the secondary aluminum processing unit. 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).

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 emissions unit i.

18. As an alternative to using the equation in section E.17 above, the permittee may demonstrate compliance for a secondary aluminum processing unit by demonstrating that each existing group 1 furnace is in compliance with the emission limits for a new group 1 furnace in 40 CFR 63.1505(i).

19. Compliance with the emission limitation(s) of this permit shall be determined in accordance with the following method(s):

- a. Emission Limitation
 Particulate emissions shall not exceed 3.22 lbs/hr and 14.1 tons/yr

Applicable Compliance Method
 Emissions testing using Method 5

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- b. Emission Limitation
Particulate emissions from the stack servicing this emissions unit shall not exceed 0.015 gr/dscf.

Applicable Compliance Method
Emissions testing using Method 5

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- c. Emission Limitation
Carbon monoxide emissions shall not exceed 0.2 lb/hr and 0.88 ton/yr.
- Applicable Compliance Method
If required, emissions testing using Method 10
- d. Emission Limitation
Nitrogen oxide emissions shall not exceed 3.6 lbs/hr and 15.8 tons/yr.
- Applicable Compliance Method
If required, emissions testing using Method 7.
- e. Emission Limitation
Visible emissions from the stack servicing this emissions unit shall not exceed 10% opacity, as a 6-minute average.
- Applicable Compliance Method
If required, testing using Method 9.
- f. Emission Limitation
15 ug pg D/F TEQ per Mg (2.1×10^{-4} gr of D/F TEQ per ton) of feed/charge.
- Applicable Compliance Method
Emission testing using Method 23 as required in this section E.1 through E.21.
- g. Emission Limitation
Visible emissions of fugitive dust coming from any opening in the building housing this emissions unit shall not exceed 20% opacity, as a 3-minute average.
- Applicable Compliance Method
If required, testing using Method 9.
- h. Emission Limitation
HCl emissions shall not exceed 0.9 lb/hr and 4.0 tons/yr.
- Applicable Compliance Method
If required, emissions testing using Method 26A
- i. Emission Limitation
Organic compound emissions shall not exceed 4.2 lbs/hr and 18.4 tons/yr.

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Applicable Compliance Method

If required, emissions testing using Method 25A

F. Miscellaneous Requirements

None

NEW SOURCE REVIEW FORM B

PTI Number: 15-01411 Facility ID: 1576001813

FACILITY NAME Albex Aluminum, Inc

FACILITY DESCRIPTION 24 MMBtu/hr natural gas-fired aluminum smelting reverberatory furnace with baghouse. CITY/TWP Plain Twp

SIC CODE 3354 SCC CODE 30400102 EMISSIONS UNIT ID P009

EMISSIONS UNIT DESCRIPTION 24 MMBtu/hr natural gas-fired aluminum smelting reverberatory furnace with baghouse.

DATE INSTALLED construction is scheduled to begin in May 2000

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulates	Attainment			Overall limit 3.22 lbs/hr Stack limit 0.015 gr/dscf	14.1
PM ₁₀					
Sulfur Dioxide					
Organic Compounds	Attainment			4.2	18.4
Nitrogen Oxides	Attainment			3.6 lbs/hr	15.8
Carbon Monoxide	Attainment			0.2 lb/hr	0.88
Lead					
HCL				0.9 lb/hr	4

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? 40 CFR Part 63 PSD? OFFSET POLICY?
Subpart RRR

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination Compliance with 40 CFR Part 63 Subpart RRR and lime-injected fabric filter.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? Unknown

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? YES NO

IDENTIFY THE AIR CONTAMINANTS:

NEW SOURCE REVIEW FORM B

PTI Number: 15-01411 Facility ID: 1576001813

FACILITY NAME Albex Aluminum, Inc

FACILITY DESCRIPTION	24 MMBtu/hr natural gas-fired aluminum smelting reverberatory furnace with baghouse.	CITY/TWP	Plain Twp
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Emissions Rate Calculations

PM

Uncontrolled Emission Rate

US EPA AP42 4.3 lbs/ton scrap charged

Charge rate = 11,000 lbs./hr (aluminum scrap)
 1,000 lbs/hr (cover flux, non-reactive)

Uncontrolled emissions = 11,000 lbs/hr x 2,000 lbs/ton x 4.3 lbs/ton = 23.65 lbs/hr

17-11 Allowable Emission Rate

PWR (Table 1) Allowable

 $4.1 \times 6^{0.67} = 13.62 \text{ lbs/hr}$

UCMRE (Figure II) Allowable

 $0.5782 \times 23.65^{0.6456} = 4.45 \text{ lbs/hr}$

MACT Allowable Emission Rate for a Group 1 Furnace at a Major Source (Note this emissions unit is only an Area Source)

 $\text{allowable} = 0.8 \text{ lb/ton} \times 6 \text{ tons/hr} = 4.8 \text{ lbs/hr}$

BAT Allowable based on a limit of 0.015 gr/scf, 28,000 acfm and 150 degrees fahrenheit

 $0.015 \text{ gr/scf} \times 28,000 \text{ cf/min} \times (460 + 70)/(460 + 150) \times 1/7000 \text{ gr/lb} \times 60 \text{ min/hr} = 3.1 \text{ lbs/hr}$

Fugitive Emissions

 $23.65 \text{ lbs/hr (uncontrolled)} \times 0.01 \text{ (99\% capture)} \times 0.5 \text{ (50\% capture for building)} = 0.12 \text{ lb/hr}$

Total Allowable Emission Rate

 $3.1 \text{ lbs/hr (stack)} + 0.12 \text{ lb/hr (fugitive)} = 3.22 \text{ lbs/hr}$

CO Emissions

NEW SOURCE REVIEW FORM B

PTI Number: 15-01411 Facility ID: 1576001813

FACILITY NAME Albex Aluminum, Inc

FACILITY DESCRIPTION	24 MMBtu/hr natural gas-fired aluminum smelting reverberatory furnace with baghouse.	CITY/TWP	Plain Twp
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Emission factor (based on aluminum-melting furnace document 5/30/91) = 0.004 lb/MMBtu

24 MMBtu/hr furnace

24 MM Btu/hr x 0.004 lb/MMBtu CO = 0.1 lb CO/hr

NO_x Emissions

Emission factor (based on aluminum-melting furnace document 5/30/91) = 0.15 lb/MMBtu

24 MMBtu/hr furnace

24 MMBtu/hr x 0.015 lb/MMBtu NO_x = 3.6 lbs NO_x/hr