



State of Ohio Environmental Protection Agency

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6/26/2009

Certified Mail

Mr. Todd Rouse
GMC Powertrain Div.
26427 State Route 281 East
Defiance, OH 43512-0070

No	TOXIC REVIEW
Yes	PSD
No	SYNTHETIC MINOR
No	CEMS
No	MACT
No	NSPS
No	NESHAPS
Yes	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0320010001
Permit Number: P0104240
Permit Type: Initial Installation
County: Defiance

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio EPA Weekly Review and the local newspaper, Crescent-News. A copy of the public notice and the draft permit are enclosed. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page <http://www.epa.state.oh.us/dapc> in Microsoft Word and Adobe Acrobat format. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
122 South Front Street
Columbus, Ohio 43215

and Ohio EPA DAPC, Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Ohio EPA DAPC, Northwest District Office at (419)352-8461.

Sincerely,

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

Cc: U.S. EPA
Ohio EPA-NWDO; Michigan; Indiana

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

PUBLIC NOTICE
Issuance Of Draft Air Pollution Permit-To-Install
GMC Powertrain Div.

Issue Date: 6/26/2009
Permit Number: P0104240
Permit Type: Initial Installation
Permit Description: Permit to address the installation of mold cooling and shakeout operations for precision sand pilot line.
Facility ID: 0320010001
Facility Location: GMC Powertrain Div.
State Route 281 East,
Defiance, OH 43512
Facility Description: Iron Foundries

Chris Korleski, Director of the Ohio Environmental Protection Agency, 50 West Town Street, Columbus Ohio, has issued a draft action of an air pollution control permit-to-install (PTI) for an air contaminant source at the location identified above on the date indicated. Installation of the air contaminant source may proceed upon final issuance of the PTI. Comments concerning this draft action, or a request for a public meeting, must be sent in writing no later than thirty (30) days from the date this notice is published. All comments, questions, requests for permit applications or other pertinent documentation, and correspondence concerning this action must be directed to Donald Waltermeyer at Ohio EPA DAPC, Northwest District Office, 347 North Dunbridge Road or (419)352-8461. The permit can be downloaded from the Web page: www.epa.state.oh.us/dapc

Permit To Install: **P0104240**

**STAFF DETERMINATION FOR THE APPLICATION TO CONSTRUCT
UNDER THE PREVENTION OF SIGNIFICANT DETERIORATION REGULATIONS
FOR THE GM POWERTRAIN GROUP - DEFIANCE FOUNDRY
DEFIANCE COUNTY, OHIO
PTI NUMBER P0104240**

The Clean Air Act and regulations promulgated thereunder require that major air pollution sources undergoing construction or modification comply with all applicable Prevention of Significant Deterioration (PSD) provisions and nonattainment area New Source Review requirements. The federal PSD rules govern emission increases in attainment areas for major sources, which are sources with the potential to emit 250 tons per year or more of any pollutant regulated under the Clean Air Act, or 100 tons per year or more if the source is included in one of 28 source categories. In nonattainment areas, the definition of a major source is one having at least 100 tons per year potential emissions. A major modification is one resulting in a contemporaneous increase in emissions which exceeds the significance level of one or more pollutants. Any changes in actual emissions within a five-year period are considered to be contemporaneous. In addition, Ohio now has incorporated the PSD and NSR requirements by rule under OAC 3745-31.

Both PSD and nonattainment rules require that certain analyses be performed before a facility can obtain a permit authorizing construction of a new source or major modification to a major source. The principal requirements of the PSD regulations are as follows:

- 1) Best Available Control Technology (BACT) review - A detailed engineering review must be performed to ensure that BACT is being installed for the pollutants for which the new source is a major source.
- 2) Ambient Air Quality Review - An analysis must be completed to ensure the continued maintenance of the National Ambient Air Quality Standards (NAAQS) and that any increases in ambient air pollutant concentrations do not exceed the incremental values set pursuant to the Clean Air Act.

For nonattainment areas, the requirements are:

- 1) Lowest Achievable Emissions Rate (LAER) - New major sources must install controls that represent the lowest emission levels (highest control efficiency) that has been achieved in practice.
- 2) The emissions from the new major source must be offset by a reduction of existing emissions of the same pollutant by at least the same amount, and a demonstration must be made that the resulting air quality shows a net air quality benefit. This is more completely described in the Emission Offset Interpretative Ruling as found in Appendix S of 40 CFR Part 51.
- 3) The facility must certify that all major sources owned or operated in the state by the same entity are either in compliance with the existing State Implementation Plan (SIP) or are on an approved schedule resulting in full compliance with the SIP.

For rural ozone nonattainment areas, the requirements are:

- 1) LAER - New major sources must install controls that represent the lowest emissions levels (highest control efficiency) that has been achieved in practice.
- 2) The facility must certify that all major sources owned or operated in the state by the same entity are either in compliance with the existing SIP or are on an approved schedule resulting in full compliance with the SIP.

Finally, New Source Performance Standards (NSPS), SIP emission standards and public participation requirements must be followed in all cases.

Site/Facility Description

The GMC Powertrain - Defiance County (GM Defiance) facility is a Major PSD facility for NO_x, PM, PM₁₀ & VOC. Defiance County is classified as attainment for all pollutants

GM Defiance is a manufacturer of automobile parts. GM Defiance has proposed to install and operate the cooling and shakeout portion of the development line for the new generation V-6 engine blocks called High Feature V-6 (HFV6). The main line and the pouring section of the developmental line was permitted under PTI 03-17353 issued June 10, 2008.

Project Description

GM Defiance is proposing the following:

- 1) the shutdown and removal of two lost foam lines (lines 3 & 4);
- 2) the installation a new HFV6 precision sand aluminum casting research & development pilot for the mold pouring process;

A.

- 1) the installation of a new HFV6 precision sand aluminum casting production process;
- 2) the reuse of the current lost foam aluminum reverberatory furnaces and the associated baghouses and regenerative thermal oxidizers (RTOs) for the HFV6 aluminum casting process; and
- 3) the installation of the HFV6 precision sand aluminum casting research and development pilot for the mold cooling and shakeout process.

Process Description

The precision sand HFV6 process consists of the following activities:

Molten Aluminum - Molten aluminum is received or melted in the two Receiving furnaces [existing emissions units P424 and P427]. Molten aluminum is then pumped into another furnace (Leveling furnace) [this will be a new installation]. [The Leveling/holding furnace will be electrically heated and not ventilated to the atmosphere.] An electrically heated Launder system will move the molten metal from the Leveling furnace to the Production line and Pilot line pouring stations. [The Laundering system is completely covered during transporting of the molten metal and is not directly exhausted to the atmosphere.]

The Laundering system terminate at the Pump Well electrically-heated furnace (not directly exhausted to the atmosphere). The molten metal is then pumped from the Pump Well furnace through a nozzle into the mold by use of electromagnetic pump.

A salt of chlorine and/or fluorine is added to the molten aluminum either by injection below the metal surfaces or by distributing it on top of the molten metal. This is called fluxing and its purpose is to help extend the life of the furnace refractory and keep the furnace walls clean and remove metal impurities. The waste formed by fluxing is called dross (floats to the top) and is skimmed from the furnace in a process called Drossing.

In addition, hydrogen gas is removed from the molten metal (usually in the Laundering system and the Leveling furnace) before casting. Argon or nitrogen is injected into the molten metal for degassing purposes.

Core Room Activities - The core room activities include sand delivery and transport, coremaking, core machine maintenance, core assembly, cylinder liner cleaning, and final mold assembly.

The HFV6 Precision Sand process employs only core sand. Sand will be delivered via rail or truck and sent, initially, to a receiving station containing 2, 35-ton hoppers. The hoppers will feed a large silo and 2, 60-ton storage bins. The sand in the storage containers will be directed to a 20-ton bin. The sand from the 20-ton bin will be directed into 2, 70-ton sand bins, which will feed the sand mixers located at the core machines.

There will be 6 core machines using sand, resins, and a catalyst to manufacture cores. The Cores will be made using "Cold Box" technology, where sand is first mixed with a 2-part resin. Di-methyl iso-propyl amine (DMIPA) will be added as the catalyst (for resin hardening) for manufacturing the cores. After the cores are made, they will then be placed on a conveyor to be taken to storage racks. About 13 to 16 individual cores are used to assemble the final mold, which resembles a cube or box-shaped structure.

Cleaned cast iron cylinder liners (they provide the appropriate wear surface between the piston outside diameter and the cylinder bore inside diameter) are inserted into the partially assembled core packages. Next, a bottom steel or cast iron chill (to produce rapid cooling of aluminum) is added to the partially assembled core package. Finally, the large cover core is applied to complete the mold.

Cast Line Operations - Molten aluminum is pumped from the Pump well into the mold. The mold is then set into a cooling conveyor to allow the molten metal to solidify. The mold then enters a shakeout enclosure, where 95% of the core sand is removed.

The castings then move into the Casting Cooling Tunnel. The castings will then be routed to new equipment called the Hershel Hammer & Swing Master. This equipment will remove additional sand using mechanical hammering followed by a rotating and shaking activity. The castings will then be moved to a shot blasting unit. Finally, the aluminum gating system associated with the castings will be removed, after which, the castings are packaged and sent off site as a product.

Waste Sand Handling - Waste sand will be generated at several places in the process, but mainly at the shakeout. The waste sand will be conveyed to a sand crusher. The crusher will break up the large sand cores into smaller pieces. The crushed waste sand will either be taken off-site for disposal or recycling activity or it will be taken to the plant's landfill for disposal.

Makeup Air Houses - Natural gas-fired make-up air houses will be installed to supply the necessary air for the precision sand area.

Applicable Regulations

There are no 40 CFR Part 60 or 61 rules that might apply to any of the emissions units that are part of this project. Also, 40 CFR Part 63, Subpart RRR, which applies to Secondary Aluminum Production, is not applicable. Pursuant to 40 CFR 63.1503, aluminum die casting, aluminum foundries, and aluminum extrusion facilities are not considered secondary aluminum production facilities if the only materials they melt are clean charge (includes molten aluminum), customer return, or internal scrap, and if they do not operate sweat furnaces, thermal chip dryers, or scrap dryers/delacquering kilns/decoating kilns. Therefore, this facility is not subject to 40 CFR Part 63, Subpart RRR. However 40 CFR Part 63, Subpart EEEEE is applicable to emissions units P264 (iron pour).

PSD Applicability

GM Defiance is currently classified as a PSD "major" stationary source with potential VOC and PM10 emissions exceeding the PSD significance levels. Any "major" stationary source which is proposing emissions of a regulated pollutant in excess of PSD significance levels will be required to undergo a PSD analysis for that particular pollutant. This project will meet the definition of major modification for PM10 and VOC emissions.

However, the net emissions increase for PM10 is below the significance level of 15 tons per year, and, therefore, this project is not considered a major modification for PM10. On the other hand, the net emissions increase for VOC is above the significance level of 40 tons per year. Therefore, this project is considered a major modification for VOC.

Table I shows the Net emissions increase from the proposed project.

Table I

<u>Pollutant</u>	<u>Tons per Year Increases</u>	<u>Netting Emissions</u>	<u>PSD Trigger</u>
VOC	144.61	+114.70	40
PM ₁₀	37.22	--17.45	15
NOx	12.30		40
CO	12.30		100
SO2	0.07		40

Based upon the information above, a PSD review is required for VOC only.

Best Available Control Technology (BACT) analysis

BACT Review

The GM Defiance facility is subject to PSD regulations which mandates a case-by-case BACT analysis be performed for each proposed new or modified emissions unit at which a net increase of VOC will occur (see Table II below). The application used a “top-down” approach to determine an appropriate level of control.

As part of the application for any emissions unit regulated under the PSD requirements, an analysis must be conducted that demonstrates that Best Available Control Technology (BACT) will be employed for every affected pollutant.

Table II

Precision Sand Sources Requiring VOC BACT	
Sand Mixing	Shakeout
Core Mixing	Cooling Tunnel
Core Machine Metal Cleaner	Hershel Hammer & Swing Master
Core Storage and Assembly	Degating
Cylinder liner Cleaning Oven	Sand Crusher
Pouring	Waste Sand Handling
Cooling	Air House

Summary of BACT Requirements

BACT is defined as an emission limitation for new or modified sources to be achievable on a case-by-case basis while considering the following three factors:

- 1) Environmental Impact;
- 2) Energy Impact; and
- 3) Economic Impact.

BACT analysis includes air pollution control technologies with the potential to be applied to the emission source for the pollutant under consideration. It is pertinent to point out that BACT must be no less stringent than limitations defined by the standard of a State Implementation Plan, a National Emission Standard for Hazardous Air Pollutants, or a New Source Performance Standard.

The BACT analysis requires a "Top-Down" approach (*NSR Workshop Manual*), which evaluates the control technology with highest efficiency first, and arrives at the final controls in a 5-step process:

- 1) Identifying All Applicable Control Technologies;
- 2) Eliminating Technically Infeasible Control Technologies;
- 3) Ranking Remaining Control Technologies by Control Effectiveness;
- 4) Evaluating Cost Effectiveness of Controls and Document Results; and
- 5) Selecting BACT.

As can be seen from the list above, the final stage of the analysis is the actual selection of the most cost effective air pollution control device. The permitting authority generally sets levels for cost effectiveness. Once a cost-effective control device has been identified for a particular source, that device will be selected as BACT and will be implemented as part of the overall project for that source. If no control systems are deemed to be cost effective, BACT will be no abatement.

PROJECT BACT ANALYSIS/ The 5-step BACT process

Step #1 -- Identify All Applicable Control Technologies

The controls Identified for the emissions units that comprise this project are listed below, in the order of highest to lowest control efficiency:

- 1) Thermal Oxidation (non-catalytic) (TO)
- 2) Activated Carbon Adsorption
- 3) Wet Scrubbing
- 4) Refrigeration/Condensation

These control devices have been identified as potentially applicable BACT technologies by researching RACT/BACT/LAER Clearinghouse and EPA's NEET Clean Air Technologies Databases, and in-house engineering experience. Each option was evaluated taking into account the source's physical and chemical characteristics of the gas stream to be controlled.

Step #2 – Eliminate Technically Infeasible Options

Sand mixing - Low VOC concentration (59 ppmw) renders the use of carbon adsorption, condensation, and wet scrubbing technically infeasible. TO is technically feasible for this source.

Core Making - The presence of particulate matter in the exhaust gas stream would result in plugging of the carbon bed. Carbon adsorption is technically infeasible for Core mixing. Low VOC concentration (<1000 ppmw) results in unreasonably low requirement for condensation temperature, making the use of the condensation technology technically infeasible. Wet scrubbing and thermal oxidation are technically feasible.

Core Machine Metal Cleaner - High volume of air (>300,000 SCFM) and low concentration (~ 2 ppmw) make this source not conducive to add-on controls. **(BACT is no controls.)**

Core Box Cleaning Tank- Low VOC concentration (~ 1 ppmw) makes this source not conducive to add-on controls. **(BACT is no controls.)**

Core Storage & Assembly - High volume of air (>300,000 SCFM) and low concentration (~ 8 ppmw) make this source not conducive to add-on controls. **(BACT is no controls.)**

Cylinder Liner Cleaning Oven - Only source of VOC emissions is natural gas combustion. Because of the elevated temperatures of the oven exhaust gas stream, carbon adsorption, wet scrubbing, and condensation are not technically feasible. Also, thermal oxidation is not feasible as a combustion source since it will also generate VOC and NOx emissions (ozone precursor). **(BACT is the use of natural gas as fuel.)**

Pouring - Low VOC concentration (~ 15 ppmw) renders the use of carbon adsorption, condensation, and wet scrubbing technically infeasible. Thermal oxidation is technically feasible for this source.

Cooling - Thermal oxidation will be employed in this source (has the highest abatement efficiency of all technologies).

Shakeout - Thermal oxidation will be employed in this source (has the highest abatement efficiency of all technologies).

Cooling Tunnel - Low VOC concentration (~ 22 ppmw) renders the use of carbon adsorption, condensation, and wet scrubbing technically infeasible. Thermal oxidation is technically feasible for this source.

Hershel Hammer & Swing Master - Low VOC concentration (~ 37 ppmw) renders the use of carbon adsorption, condensation, and wet scrubbing technically infeasible. Thermal oxidation is technically feasible for this source.

Degating - Low VOC concentration (~ 2 ppmw) renders the use of carbon adsorption, condensation, and wet scrubbing technically infeasible. Thermal oxidation is technically feasible for this source.

Sand Crusher - Low VOC concentration (<30 ppmw) and elevated exhaust temperature (~ 160 F) render the use of carbon adsorption, condensation, and wet scrubbing technically infeasible. Thermal oxidation is technically feasible for this source.

Waste Sand Handling - High volume of air (>300,000 SCFM) and low concentration (~ 1 ppmw) make this source not conducive to add-on controls. **(BACT is no controls.)**

Air House - Only source of VOC emissions is natural gas combustion. Because of the elevated temperatures of the oven exhaust gas stream, carbon adsorption, wet scrubbing, and condensation are not feasible. Also, thermal oxidation is not feasible as a combustion source since it will also generate VOC and NOx (ozone precursor). **(BACT is the use of natural gas as fuel.)**

Pilot Line Cooling & Shakeout - Low VOC concentration (<83 ppm) renders carbon adsorption, wet scrubbing, and condensation not technically feasible. Thermal oxidation is technically feasible for this source.

Step #3 -- Rank Remaining Control Technologies by Control Effectiveness

Thermal Oxidation (TO) and wet scrubbing are the only remaining technically feasible options for core making. Technically, thermal oxidation can achieve higher control efficiency for VOC than wet scrubbing. Therefore, TO is the highest ranking control technology for the following sources: core making, Sand Mixing, Pouring, Cooling Tunnel, Hershel Hammer & Swing Master, Degating, and Sand Crusher. Based on in-house data, it is estimated that low pH, sulfuric acid and water solution, wet scrubbing will achieve an 84% control efficiency for VOC, while thermal oxidation will achieve 95% control for VOC.

Step #4 -- Evaluate Most Effective Controls and Document Results

Thermal Oxidation - Normally, thermal oxidizers are capable of achieving up to 95% control efficiency and can recover upwards of 95% of the heat of combustion. Resin material, however, may contribute to fouling of the

heat sink beds of the oxidizer, which will require capabilities to clean off the fouling material. This will increase the capital cost and reduce the thermal efficiency of the oxidizer.

Wet scrubbing - The scrubber uses a low pH, sulfuric acid and water, solution to absorb VOC from the exhaust gas steam. The efficiency of absorption for removing pollutants from a gaseous mixture is dependent on the solubility of the pollutant in the absorption solvent.

Core Making - Abatement of di-methyl iso - propyl amine (DMIPA) using oxidation results in creation of large quantities of NOx emissions (43 lbs/hr or 110 tons/year). The overall control efficiency for VOC is expected to be 95%, by weight.

The acid scrubber removes about 99% of the DMIPA from the exhaust gas stream. However, it will only remove a small amount of other VOCs present in the gas steam (30- 40%). The overall control efficiency for VOC is 84%, by weight. It is estimated that employing TO over wet scrubbing will result in a further VOC reduction of 61 tons/year.

A combination of wet scrubbing and TO will also be considered as an option.

Step #5 -- Select BACT

Core Making- Use of TO to control VOC emissions will generate a high amount of NOx emissions (110 tons per year). The use of Wet Scrubbing (using sulfuric acid and water as the scrubbing solution), on the other hand, will result in 61 more tons of uncontrolled VOC/year. Although TO control efficiency is slightly higher, the additional control of 61 tons VOC/year is outweighed by the creation of 110 tons NOx/year. Also, GM has employed wet scrubbing at GM's Saginaw Metal Casting Operations facility on a similar process (installed in 2004) producing V-8 aluminum blocks. Furthermore, wet scrubbing to control VOC emissions from core making is an industry standard.

Using TO and wet scrubbing (TO will be used in series with wet scrubbing and will control residual VOCs from the scrubber) was investigated and deemed not cost-effective (\$9,600/ton of VOC removed). Therefore, BACT for Core Making is Wet Scrubbing.

Other sources - The cost effectiveness for the other sources (Sand Mixing, Pouring, ...etc) for TO ranged from \$ 9,632 to \$985,859/tons of VOC removed. Table III below provides a summary of BACT for each one of the sources considered:

Table III

Summary of VOC BACT	
Sand Mixing	NO Controls
Core Making	Wet Scrubber (low pH)
Core Machine Metal Cleaner	NO Controls
Core Box Cleaning Tank	NO Controls
Core Storage and Assembly	NO Controls
Cylinder liner Cleaning Oven	Use of natural gas
Pouring	NO Controls
Cooling Tunnel	NO Controls
Shakeout	TO

Cooling	TO
Hershel Hammer & Swing Master	NO Controls
Degating	NO Controls
Sand Crusher	NO Controls
Waste Sand Handling	NO Controls
Air House	NO Controls
Pilot Cooling & Shakeout	No Controls

Modeling

Air dispersion modeling was performed for the Core Making operations (potential HAPs emission > 1 ton/year) using USEPA's SCREEN3 and an emissions rate of 1 gram/second. The predicted ambient concentrations of air Toxics results showed concentrations (for phenol, m, p-xylene, and naphthalene) well below the applicable pollutant specific MAGLC.

Conclusions

Based upon the analysis of the permit to install application and its supporting documentation provided by the GM Defiance, the Ohio EPA staff has determined that the proposed increase will comply with all applicable State and Federal environmental regulations and that the requirements for BACT are satisfied. Therefore, the Ohio EPA staff recommends that a permit to install be issued to the GM Defiance facility.



**State of Ohio Environmental Protection Agency
Division of Air Pollution Control**

DRAFT

**Air Pollution Permit-to-Install
for
GMC Powertrain Div.**

Facility ID: 0320010001
Permit Number: P0104240
Permit Type: Initial Installation
Issued: 6/26/2009
Effective: To be entered upon final issuance



State of Ohio Environmental Protection Agency
 Division of Air Pollution Control

Air Pollution Permit-to-Install
 for
 GMC Powertrain Div.

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State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install

Permit Number: P0104240

Facility ID: 0320010001

Effective Date: To be entered upon final issuance

Authorization

Facility ID: 0320010001

Facility Description: Foundry.

Application Number(s): A0036251

Permit Number: P0104240

Permit Description: Permit to address the installation of mold cooling and shakeout operations for precision sand pilot line.

Permit Type: Initial Installation

Permit Fee: \$200.00 *DO NOT send payment at this time, subject to change before final issuance*

Issue Date: 6/26/2009

Effective Date: To be entered upon final issuance

This document constitutes issuance to:

GMC Powertrain Div.
State Route 281 East
Defiance, OH 43512

of a Permit-to-Install for the emissions unit(s) identified on the following page.

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402
(419)352-8461

The above named entity is hereby granted a Permit-to-Install for the emissions unit(s) listed in this section 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 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

Chris Korleski
Director



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install
Permit Number: P0104240
Facility ID: 0320010001

Effective Date: To be entered upon final issuance

Authorization (continued)

Permit Number: P0104240
Permit Description: Permit to address the installation of mold cooling and shakeout operations for precision sand pilot line.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Emissions Unit ID:	P480
Company Equipment ID:	324430
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Draft Permit-to-Install

Permit Number: P0104240

Facility ID: 0320010001

Effective Date: To be entered upon final issuance

A. Standard Terms and Conditions



1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
 - (1) Standard Term and Condition A. 2.a), Severability Clause
 - (2) Standard Term and Condition A. 3.c) through A. 3.e) General Requirements
 - (3) Standard Term and Condition A. 6.c) and A. 6.d), Compliance Requirements
 - (4) Standard Term and Condition A. 9., Reporting Requirements
 - (5) Standard Term and Condition A. 10., Applicability
 - (6) Standard Term and Condition A. 11.b) through A. 11.e), Construction of New Source(s) and Authorization to Install
 - (7) Standard Term and Condition A. 14., Public Disclosure
 - (8) Standard Term and Condition A. 15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (9) Standard Term and Condition A. 16., Fees
 - (10) Standard Term and Condition A. 17., Permit Transfers

2. Severability Clause

- a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

- a) The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.



- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

4. Monitoring and Related Record Keeping and Reporting Requirements

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) The operating conditions existing at the time of sampling or measurement.
- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Northwest District Office.



(2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Northwest District Office. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.

(3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the Ohio EPA DAPC, Northwest District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

(4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

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

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

6. Compliance Requirements

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

b) Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

c) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:



- (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- d) The permittee shall submit progress reports to the Ohio EPA DAPC, Northwest District Office concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
- (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

8. 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.

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Northwest District Office.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Northwest District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted



(i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. 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).

11. Construction of New Sources(s) and Authorization to Install

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. 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 this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit 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.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. 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.
- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed through completion of the annual PER covering the last period of operation of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the PER covering the last period the emissions unit operated.



No emissions unit certified by the authorized official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a PER, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

13. Construction Compliance Certification

The applicant shall identify the following dates in the online facility profile for each new emissions unit identified in this permit.

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. 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.

15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

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., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

16. 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 any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.



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17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The Ohio EPA DAPC, Northwest District Office must be notified in writing of any transfer of this permit.

18. Risk Management Plans

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

19. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.



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B. Facility-Wide Terms and Conditions



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1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
 - a) None.



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C. Emissions Unit Terms and Conditions



1. P480, precisions sand mold cooling and shakeout (pilot line)

Operations, Property and/or Equipment Description:

Precision sand mold cooling and shakeout line (pilot line)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) OAC rule 3745-31-10 through 20	Volatile organic compound (VOC) emissions shall not exceed 1.8 pounds (lbs) per casting and 19.12 tons per year (tpy), based upon a rolling, 12-month summation of the monthly emissions.
b.	OAC rule 3745-31-05(D)	Filterable particulate matter emissions less than or equal to 10 microns in size (PM10) shall not exceed 0.432 lb/casting and 4.59 tpy, based upon a rolling, 12-month summation of the monthly emissions. Particulate emissions (PE) shall not exceed 0.216 lb per casting and 2.29 tpy, based upon a rolling, 12-month summation of the monthly emissions. Visible PE shall not exceed 10% opacity as a six-minute average from any egress points serving this emissions unit.
c.	OAC rule 3745-17-11(B) OAC rule 3745-17-07(A)	The emission limitations specified by these rules are less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D).
d.	OAC rule 3745-31-05(A)(3)(a)(ii)	See b)(2)c.
e.	OAC rule 3745-31-05(A)(3)(a)	See b)(2)e.



(2) Additional Terms and Conditions

- a. Based on the "Prevention of Significant Deterioration" (PSD) analysis conducted to ensure the application of "Best Available Control Technology" (BACT), it has been determined that no control technologies for VOC were cost effective.
- b. The rolling, 12-month emission limitation is a BACT limitation and a federally enforceable limitation established for the purpose of reducing the potential to emit for this emissions unit. The emission limitation is based upon the federally enforceable restriction on the number of castings processed on this line [See c)(1)].
- c. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to filterable PM10 emissions from this air contaminant source since the potential to emit is less than ten tons per year taking into account the federally enforceable restriction on the number of castings processed by this emissions unit.
- d. The "Best Available Technology (BAT)" requirements under OAC rule 3745-31-05(A)(3)(a) are not applicable to the particulate emissions emitted from this emissions unit. BAT is only applicable to emissions of an air contaminant or precursor of an air contaminant for which a national ambient air quality standard (NAAQS) has been adopted under the Clean Air Act. PE (also referred to as total suspended particulate or particulate matter) is an air contaminant that does not involve an established NAAQS.
- e. The requirements of this rule also include compliance with OAC rule 3745-31-05(D) and OAC rules 3745-31-10 through 3745-31-20.

c) Operational Restrictions

- (1) The maximum castings processed by this emissions unit shall not exceed 21,240, based upon a rolling, 12-month summation of the monthly castings processed.

To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the number of castings specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative of Castings Processed</u>
1	1770
1-2	3540
1-3	5310
1-4	7080
1-5	8850
1-6	10,620
1-7	12,390



1-8	14,160
1-9	15,930
1-10	17,700
1-11	19,470
1-12	21,240

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual aluminum usage restriction shall be based upon a rolling, 12-month summation of the monthly sand processed.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information each month for this emissions unit:
 - a. the number of castings processed;
 - b. for the first 12 months of operation following the issuance of this permit, the cumulative quantity of castings processed; and
 - c. after the first 12 months of operation following the issuance of this permit, the quantity of castings processed, based on a rolling, 12-month summation of the monthly quantity of castings processed.
- (2) The permittee shall perform weekly* checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the date and time of the visible emission observation;
 - b. the identification of the egress observed;
 - c. the color of the emissions;
 - d. the total duration of any visible emission observation; and
 - e. the corrective actions, if any, taken to eliminate the visible emissions.

*once during each normal calendar week

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports, which identify all exceedances of the following:
 - a. for the first 12 calendar months of operation following the issuance of this permit, the restriction on the maximum allowable cumulative of castings processed; and



- b. after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month restriction on the quantity of castings processed.

These quarterly deviation reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

- (2) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous six-month periods.

f) Testing Requirements

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

a. Emission Limitation:

The maximum annual quantity of castings processed shall not exceed 21,240 per rolling, 12-month period.

Applicable Compliance Method:

Compliance shall be demonstrated by the record keeping requirements specified in d)(1).

b. Emission Limitations:

VOC emissions shall not exceed 1.8 pounds per casting and 19.12 tpy, based upon a rolling, 12-month summation of the monthly emissions.

Applicable Compliance Method:

Compliance with the pounds per casting limitation shall be demonstrated by multiplying a company-supplied emission factor of 24 lbs of VOC/ton of aluminum by the quantity of aluminum per casting (0.075 ton per casting).

If required, the permittee shall demonstrate compliance with the emission limitation of 1.8 lbs of VOC/casting based on the results of testing conducted in accordance with USEPA Methods 1-4 and 18, 25, or 25A, as applicable, of 40 CFR Part 60, Appendix A.

The annual limitation of 19.12 tons of VOC was established by multiplying the 1.8 lbs per casting limitation by the annual restriction of 21,240 castings processed per rolling 12-month period, and dividing by 2000 lbs/ton. Therefore provided compliance is shown with the lbs per casting limitation and the annual operational restriction, compliance with the annual limitation shall be assumed.



c. Emission Limitation:

Filterable PM10 emissions shall not exceed 0.432 pound per casting and 4.59 tpy, based upon a rolling, 12-month summation of the monthly emissions.

Applicable Compliance Method:

Compliance with the pounds per casting limitation shall be demonstrated by multiplying a company-supplied emission factor of 5.76 lb of filterable PM10/ton of aluminum by the quantity of aluminum per casting (0.075 ton per casting).

If required, the permittee shall demonstrate compliance with the emission limitation of 0.432 lb of filterable PM10/casting based on the results of testing conducted in accordance with USEPA Methods 201/201A of 40 CFR Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office (NWDO).

The annual limitation of 4.59 tons of filterable PM10 was established by multiplying the 0.432 lb of filterable PM10 per casting limitation by the annual restriction of 21,240 castings processed per rolling 12-month period and dividing by 2000 lbs/ton. Therefore provided compliance is shown with the lbs per casting limitation and the annual operational restriction, compliance with the annual limitation shall be assumed.

d. Emission Limitation:

PE shall not exceed 0.216 pound per casting and 2.29 tpy, based upon a rolling, 12-month summation of the monthly emissions.

Applicable Compliance Method:

Compliance with the pounds per casting limitation shall be demonstrated by multiplying a company supplied emission factor of 2.88 lb of PE/ton of aluminum by the quantity of aluminum per casting (0.075 ton per casting).

If required, the permittee shall demonstrate compliance with the emission limitation of 0.216 lb PE/casting based on the results of testing conducted in accordance with USEPA Methods 1-5 of 40 CFR Part 60, Appendix A.

The annual limitation of 2.29 tons of PE was established by multiplying the 0.216 lb of PE per casting limitation by the annual restriction of 21,240 castings processed per rolling 12-month period and dividing by 2000 lbs/ton. Therefore provided compliance is shown with the lbs per casting limitation and the annual operational restriction, compliance with the annual limitation shall be assumed.

e. Emission Limitation:

Visible PE shall not exceed 10% opacity, as a six-minute average from any egress points serving this emissions unit..



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Applicable Compliance Method:

If required, compliance shall be determined according to test Method 9 as set forth in the "Appendix on Test Methods" in 40 CFR Part 60 "Standards of Performance for New Stationary Sources".

g) Miscellaneous Requirements

(1) None.