



State of Ohio Environmental Protection Agency

STREET ADDRESS:

Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

Central District Office

TELE: (614) 728-3778 FAX: (614) 728-3898
www.epa.state.oh.us

MAILING ADDRESS:

P.O. Box 1049
Columbus, OH 43216-1049

CERTIFIED MAIL # 91 7108 2133 3932 4450 8535

September 12, 2007

Renee Olney
Liberty Casting Company, LLC
550 Liberty Road
Delaware, OH 43015

**Re: Full Compliance Evaluation (FCE) Notice of Violation for
Liberty Casting Company, LLC; Facility ID# 0121010003**

Dear Ms. Olney:

Central District Office (CDO), Division of Air Pollution Control (DAPC) appreciates the courtesy and cooperation extended to John McGreevy, Michelle Braun and me by Troy Fischer and you during site visits on July 24, August 8, and August 24, 2007, to Liberty Casting Company's facility located at 550 South Liberty Road, Delaware, Ohio. The purpose of these site visits was to evaluate compliance with applicable permits along with state and federal rules and regulations.

Evaluation during the FCE consisted of a thorough analysis of each non-insignificant emission unit, as specified in Liberty Casting Company's Title V permit application. Each compliance analysis was based upon findings discovered through a review of appropriate files at CDO, the information provided during the site visit and observations made during the facility tour.

Listed below are non-insignificant emission units and their operational status observed during one of the site visits performed as part of this FCE. Following the emissions unit list are relevant Findings, Violations and Actions discovered as a result of this compliance evaluation. The letter concludes with a summary of all requested Actions.

Non-Insignificant Emission Units:

F013 - Scrap and Charge handling;	-
P055 - Electric induction furnace (LRFU 3);	operating
P036 - Electric induction furnace (LRFU 4);	operating
P034 - Electric induction furnace (LRFU 5);	operating

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

F014 - Magnesium treatment inoculation;	-
P039 - Main pouring floor;	-
P040 - Loop pouring floor;	-
P046 - Flask line pouring floor;	-
F009 - Main cooling floor;	operating
F010 - Loop cooling floor;	operating
F011 - Flask line cooling floor;	operating
P013 - Shakeout table;	-
F012 - Mold breakout;	-
F015 - Paved roadways;	operating
F016 - Unpaved roadways;	operating
P038 - Thermal sand reclamation unit;	-
P042 - Main line sand mixer (LRMX 2);	operating
P044 - Loop line sand mixer (LRMX 4);	operating
P047 - Flask line mold sand mixer (LRMX 7);	operating
P043 - Small core room sand mixer (LRMX 3);	operating
P041 - Large core room sand mixer (LRMX 1);	operating
P048 - Main line mold wash station;	operating
P049 - Loop line flow coat mold wash station;	operating
P050 - Flask line flow coat mold wash station;	operating
P051 - South core room flow coat core wash station no.1;	operating
P052 - South core room flow coat core wash station no.2;	operating
P053 - North core room flow coat mold wash station;	operating
P032 - Shotblast unit with baghouse;	operating
P054 - Natural gas fired ladle preheaters (7);	operating
P056 - Large chromate sand mixer (LRMX 5);	operating
P057 - Large chromite area flow coat core wash station;	-
P064 - Mold and core release material operations;	-
P058 - Sand reclamation system LRRC 1 (baghouse LRDC 1);	operating
P059 - Sand reclamation system LRRC 2 (baghouse LRDC 2);	-
P060 - Vibramill shakeout No. 1 LRVM 1 (baghouse LRDC 2);	-
P061 - Vibramill shakeout No. 2 LRVM 2 (baghouse LRDC 1);	operating
P062 - Vibramill shakeout No. 4 LRVM 4 (baghouse LRDC 1);	operating
P063 - Vibramill shakeout No. 3 LRVM 3 (baghouse LRDC 2);	-
P064 - Mold and core release material operations;	operating

Findings:

1. Findings: P032 - Shotblast unit with baghouse

During the site visit on August 24, 2007, P032 was observed in operation. P032 was observed emitting excessive visible particulate emissions from various seams and corners of the equipment. These fugitive particulate emissions were observed and possible solutions were discussed with Liberty Castings staff.

Liberty Castings staff committed to assessing operation of the emissions unit and repairing the equipment as necessary to properly capture particulate emissions.

Without proper capture of particulate emissions generated by this emissions unit, Ohio EPA is unable to determine compliance with emissions limitations specified in PTI 01-2329.

Action:

Ohio EPA recognizes that Liberty Castings has verbally committed to assessing and repairing this emissions unit. Ohio EPA requests a notification when repairs have been completed.

2. Findings: P032 - Shotblast unit with baghouse

During the site visit on August 24, 2007, P058 - Sand reclamation system LRRC 1 (baghouse LRDC 1), P061 - Vibramill shakeout No. 2 LRVM 2 (baghouse LRDC 1) and P062 - Vibramill shakeout No. 4 LRVM 4 (baghouse LRDC 1) were observed in operation. Capture efficiency appeared to meet requirements specified in applicable permits for P058, P061 and P062, except for the "feeder for elevator #1".

During operation excessive fugitive particulate emissions were observed from the "feeder for elevator #1" by both Liberty Castings staff and Ohio EPA. Liberty Castings staff committed to repairing the equipment as necessary to properly capture particulate emissions.

Without proper capture of particulate emissions generated by this emissions unit, Ohio EPA is unable to determine compliance with emissions limitations specified in PTI 01-12033.

Action:

Ohio EPA recognizes that Liberty Castings has verbally committed to assessing and repairing this emissions unit. Ohio EPA requests a notification when repairs have been completed.

3. Findings: Liberty Casting's internal records

A review of monitoring and recordkeeping maintained by Liberty Castings to satisfy PTI 01-01344 was conducted by Ohio EPA. The form used to track operating minutes for the Large Chromite Sand Mixer LRMX5 references the emissions unit as P055 and a limit of 42,967 minutes. However, PTI 01-01344 references a limit of 43,000 minutes and an emissions unit ID of P056 for the Large Chromite Sand Mixer LRMX5.

A review of monitoring and recordkeeping maintained by Liberty Castings to satisfy PTI 01-12043 was conducted by Ohio EPA. The form used to track operating minutes for the Flask Line Sand Mixer LRMX7 references the emissions unit as P047 and a limit of 97,200 minutes. However, PTI 01-12043 references a limit of 56,880 minutes for the Flask Line Sand Mixer LRMX7 (P047).

Actions:

Ohio EPA requests that Liberty Castings update internal recordkeeping to reflect the correct emissions unit ID and operational limitations.

4. Findings: Monitoring and Recordkeeping of fugitive emissions

Ohio EPA conducted a review of Monitoring and Recordkeeping Requirements specified in applicable permits. These requirements were compared to records maintained by Liberty Castings and provided to Ohio EPA staff. PTI 01-01288 for emissions unit P055 and PTI 01-08609 for emissions units P039, P040 and P046 require daily observations for the presence of fugitive particulate emissions from non-stack egress points. When fugitive particulate emissions are observed, the permits specify additional observations describing the emissions that need to be recorded and subsequently reported.

Recordkeeping maintained by Liberty Castings did not include any daily monitoring for fugitive particulate from building egress points. Ohio EPA discussed this observation with Liberty Castings staff during the July 24, 2007 site visit.

Prior to the subsequent August 8, 2007 site visit, Liberty Castings had expanded the daily recordkeeping form to include observations of an additional three dust collectors and documentation of fugitive visible emissions from building egress points. In addition, Liberty Castings initiated training of staff on proper completion of the form. As explained to Ohio EPA staff, if visible emissions are seen leaving the building, then the on-site environmental coordinator is immediately notified and initiates an investigation of the fugitive emissions and records the additional information specified in the permit.

Violations:

Ohio Revised Code (ORC) rule 3704.05(C) states:

"No person who is a holder of a permit issued under division (F) or (G) of section 3704.03 of the Revised Code shall violate any of its terms and conditions."

Failure to maintain record keeping in accordance with the requirements referenced above constitutes violations of applicable permit terms and conditions and thus violations of ORC rule 3704.05(C).

Actions:

Ohio EPA recognizes the changes implemented by Liberty Castings to satisfy permit recordkeeping obligations. Ohio EPA requests that Liberty Castings implement all changes necessary to satisfy permit obligations.

5. Findings: Recordkeeping of Actual Emissions

Ohio EPA conducted a review of Monitoring and Recordkeeping Requirements specified in applicable permits. These requirements were compared to records maintained by Liberty Castings and provided to Ohio EPA staff.

PTI 01-01344, Part III.A.III.1 for P056, states the following:

"The permittee shall maintain monthly records of the following information for this emissions unit:...

- b. the VOC emission rate, in tons;...*

- e. the total VOC emission rate based on a rolling, 12-month summation, in tons, [c or d x 12 tons of sand/60 minutes x 1.17 lbs VOC/ton of sand(Ohio EPA/OCMA study, "New emission factors for core/mold making operations Part I", 2/16/98) x 1 ton/2000 lbs]."*

PTI 01-12043, Part III.A.III.1 for P047, states the following:

"The permittee shall maintain monthly records of the following information for this emissions unit:...

- b. the VOC emission rate, in tons;...*

- d. the total VOC emission rate based on a rolling, 12-month summation, in tons, [c or d x 12 tons of sand/60 minutes x 1.17 lbs VOC/ton of sand(Ohio EPA/OCMA study, "New emission factors for core/mold making operations Part I", 2/16/98) x 1 ton/2000 lbs]."*

PTI 01-01288, Part III.A.III.1 for P055, states the following:

"The permittee shall maintain monthly records of the following information:...

- c. the rolling, 12-month summation of the total particulate emissions, in tons, from emission units P027 (LRFU1 and LRFU2), P055 (LRFU3), P034 (LRFU5) and P036 (LRFU4) combined [b*0.90 lb/ton of metal melted (AP-42, Table 12.10-3, 01/95)*1 ton/2000lbs*furnace lid control efficiency (1-0.80)(PTI application submitted 05/31/05)]."*

Violations:

Failures to maintain records in accordance with applicable PTIs are considered violations of ORC rule 3704.05(C).

Actions:

Ohio EPA requests that Liberty Castings immediately implement changes to record keeping necessary to satisfy permit obligations.

6. Findings: Malfunction Reporting and Prevention

During the July 24, 2007 site visit, two small baghouses were observed to be malfunctioning. Liberty Castings notified Ohio EPA during the site visit of the malfunction and attempted to fix the problems during the site visit. Additional work was performed on each of the baghouses and written malfunction reports were submitted on August 8, 2007.

The written reports explain that Liberty Castings had implemented additional measures to prevent malfunctions in the future and initiate weekly monitoring of each baghouse to detect potential problems early. Staff had been trained on how to complete the weekly preventative maintenance form and how to address any problems or issues that are discovered.

Actions:

Ohio EPA recognizes the changes implemented by Liberty Castings to prevent malfunctions in the future and requests that Liberty Castings utilize the updated weekly preventative maintenance form and report malfunctions in accordance with OAC rule 3745-15-06.

Summary of Actions:

- 1-2. Ohio EPA requests a notification when repairs have been completed.
3. Ohio EPA requests that Liberty Castings update internal recordkeeping to reflect the correct emissions unit ID and operational limitations.

Renee Olney
Liberty Casting Company, LLC
Page -8-

4. Ohio EPA requests that Liberty Castings implement all changes necessary to satisfy permit obligations.
5. Ohio EPA requests that Liberty Castings immediately implement changes to record keeping necessary to satisfy permit obligations.
6. Ohio EPA recognizes the changes implemented by Liberty Castings to prevent malfunctions in the future and requests that Liberty Castings utilize the updated weekly preventative maintenance form and report malfunctions in accordance with OAC rule 3745-15-06.

Please note that the Ohio Environmental Protection Agency has the authority to seek civil penalties as provided in section 3704.06 of the Ohio Revised Code (ORC). This letter or information submitted pursuant to this letter does not constitute a waiver of Ohio EPA's authority to seek civil penalties as provided in the ORC. The decision on whether or not to seek such penalties will be made by the Ohio Environmental Protection Agency at a later date. Be aware, each of the above referenced violations potentially subjects Liberty Casting Company to civil penalties of \$25,000 per day per violation.

Should you have any questions regarding this matter, please feel free to contact me at (614) 728-3811.

Sincerely,



Adam Ward
Senior Environmental Specialist
Division of Air Pollution Control
Central District Office

c: Isaac A. Robinson, DAPC/CDO
John McGreevy, DAPC/CDO