

ARTICLE 20. HAZARDOUS AIR POLLUTANTS

Rule 13.1. Secondary Lead Smelters

326 IAC 20-13.1-1 Applicability

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-15; IC 13-17

Sec. 1. (a) In accordance with the compliance schedule in subsection (c), this rule applies to the following affected emission units at all secondary lead smelters:

- (1) Blast, reverberatory, rotary, and electric furnaces.
- (2) Refining kettles.
- (3) Agglomerating furnaces.
- (4) Dryers.
- (5) Process fugitive emissions sources.
- (6) Buildings containing lead bearing materials.
- (7) Fugitive dust sources.

(b) This rule does not apply to primary lead smelters, lead refiners, or lead remelters.

(c) The owner or operator of a secondary lead smelter shall comply with this rule beginning on the applicable dates specified in the following schedule:

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| (1) Except for Exide Technologies, Inc., Muncie, affected emission units constructed or reconstructed on or before May 19, 2011: | January 6, 2014 |
| (2) Compliance with section 3(c) of this rule for affected emission units constructed or reconstructed on or before May 19, 2011, at Exide Technologies, Inc., Muncie: | October 1, 2013 |
| (3) Except for the requirements of section 3(c) of this rule, compliance with this rule for affected emission units constructed or reconstructed on or before May 19, 2011, at Exide Technologies, Inc., Muncie: | January 6, 2014 |
| (4) All new emission units as defined in section 2 of this rule: | Effective date of this rule |

~~(d) The following general provisions of 40 CFR 63, Subpart A* as published in the 2012 edition* of the CFR apply to the owner or operator of a secondary lead smelter subject to this rule:~~

- ~~(1) 40 CFR 63.1 through 40 CFR 63.5*.~~
- ~~(2) 40 CFR 63.6(a) through 40 CFR 63.6(e)*.~~
- ~~(3) 40 CFR 63.6(e)(1)(iii)*.~~
- ~~(4) 40 CFR 63.6(e)*.~~
- ~~(5) 40 CFR 63.6(i)* and 40 CFR 63.6(j)*.~~
- ~~(6) 40 CFR 63.7(a) through 40 CFR 63.7(d)*.~~
- ~~(7) 40 CFR 63.7(e)(2) through 40 CFR 63.7(e)(4)*.~~
- ~~(8) 40 CFR 63.7(f) through 40 CFR 63.7(h)*.~~
- ~~(9) 40 CFR 63.8(a)* and 40 CFR 63.8(b)*.~~
- ~~(10) 40 CFR 63.8(e)(1)(ii)*.~~
- ~~(11) 40 CFR 63.8(e)(2) through 40 CFR 63.8(e)(8)*.~~
- ~~(12) 40 CFR 63.8(d)(1) and 40 CFR 63.8(d)(2)*.~~
- ~~(13) 40 CFR 63.8(d)(3)*, except for a provision concerning the incorporation of the written procedures of a quality control program into startup, shutdown, or malfunction plans.~~
- ~~(14) 40 CFR 63.8(e) through 40 CFR 63.8(g)*.~~
- ~~(15) 40 CFR 63.9(a) through 40 CFR 63.9(e)*.~~
- ~~(16) 40 CFR 63.9(e)*.~~
- ~~(17) 40 CFR 63.9(g)*.~~
- ~~(18) 40 CFR 63.9(h)(1) through 40 CFR 63.9(h)(3)*.~~
- ~~(19) 40 CFR 63.9(h)(5)* and 40 CFR 63.9(h)(6)*.~~
- ~~(20) 40 CFR 63.9(i)* and 40 CFR 63.9(j)*.~~
- ~~(21) 40 CFR 63.10(a)*.~~
- ~~(22) 40 CFR 63.10(b)(1)*.~~
- ~~(23) 40 CFR 63.10(b)(2)(iii)*.~~

~~(24) 40 CFR 63.10(b)(2)(vi) through 40 CFR 63.10(b)(2)(xiv)*;~~

~~(25) 40 CFR 63.10(b)(3)*;~~

~~(26) 40 CFR 63.10(e)(1) through 40 CFR 63.10(e)(9)*;~~

~~(27) 40 CFR 63.10(e)(12) through 40 CFR 63.10(e)(14)*;~~

~~(28) 40 CFR 63.10(d)(1) through 40 CFR 63.10(d)(4)*;~~

~~(29) 40 CFR 63.10(e)* and 40 CFR 63.10(f)*;~~

~~(30) 40 CFR 63.12 through 40 CFR 63.15*;~~

(e) The owner or operator of a secondary lead smelter subject to this rule is also subject to Title V permitting requirements under 326 IAC 2-7.

(f) Emission standards in this rule apply at all times.

*These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 20-13.1-1; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA*)

326 IAC 20-13.1-2 Definitions

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-11; IC 13-15; IC 13-17

Sec. 2. In addition to the definitions in IC 13-11, 326 IAC 1-2, and 326 IAC 20-1-3, the following definitions apply throughout this rule:

(1) "Affected emission unit" means any of the following emission units at a secondary lead smelter:

- (A) Blast, reverberatory, rotary, and electric furnaces.
- (B) Refining kettles.
- (C) Agglomerating furnaces.
- (D) Dryers.
- (E) Process fugitive emissions sources.
- (F) Buildings containing lead-bearing materials.
- (G) Fugitive dust sources.

(2) "Affirmative defense" means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

(3) "Agglomerating furnace" means a furnace used to melt flue dust that is collected from a baghouse into a solid mass.

(4) "Bag leak detection system" means an instrument that is capable of monitoring particulate matter loadings in the exhaust of a baghouse in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument to monitor relative particulate matter loadings that operates on:

- (A) triboelectric;
- (B) light scattering; or
- (C) transmittance.

(5) "Battery breaking area" means the plant location at which lead-acid batteries are broken, crushed, or disassembled and separated into components.

(6) "Blast furnace" means a smelting furnace consisting of a vertical cylinder atop a crucible, into which lead-bearing charge materials are introduced at the top of the furnace and combustion air is introduced through openings in the refractory lining and shell of the furnace at the bottom of the cylinder and that:

- (A) uses coke as a fuel source; and
- (B) is operated at a temperature in the combustion zone of greater than nine hundred eighty (980) degrees Celsius so that that lead compounds are chemically reduced to elemental lead metal.

(7) "Blast furnace charging location" means the physical opening through which raw materials are introduced into a blast furnace.

(8) "Collocated blast furnace and reverberatory furnace" means operation at the same location of a blast furnace and a reverberatory furnace where the vent streams of the furnaces are mixed before cooling, with the volumetric flow rate discharged from the blast furnace being equal to or less than that discharged from the reverberatory furnace.

(9) "Dryer" means a chamber that is heated and that is used to remove moisture from lead bearing materials before they are charged to a smelting furnace.

(10) "Dryer transition equipment" means the junction between a dryer and the charge hopper or conveyor, or the junction

between the dryer and the smelting furnace feed chute or hopper located at the ends of the dryer.

(11) "Electric furnace" means a smelting furnace consisting of a vessel into which reverberatory furnace slag is introduced and that uses electrical energy to heat the reverberatory furnace slag to a temperature of greater than nine hundred eighty (980) degrees Celsius so that lead compounds are reduced to elemental lead metal.

(12) "Fugitive dust source" means a stationary source of hazardous air pollutant emissions at a secondary lead smelter that is not associated with a specific process or process fugitive vent or stack. Fugitive dust sources include, but are not limited to, the following:

- (A) Roadways.
- (B) Storage piles.
- (C) Lead-bearing material handling transfer points.
- (D) Lead-bearing material transport areas.
- (E) Lead-bearing material storage areas.
- (F) Other lead-bearing material process areas.
- (G) Other lead-bearing material process buildings.

(13) "Furnace and refining/casting area" means any area of a secondary lead smelter where:

- (A) smelting furnaces are located;
- (B) refining operations occur; or
- (C) casting operations occur.

(14) "Lead alloy" means an alloy in which the predominant component is lead.

(15) "Lead-bearing material" means material with a lead content equal to or greater than five (5) milligrams per liter (mg/l) as measured by United States Environmental Protection Agency (U.S. EPA) Method 1311 "Test Methods for Evaluating Solid Waste, Physical/Chemical Method", U.S. EPA Publication SW-846*. Under Method 1311, only materials with at least one hundred (100) parts per million (ppm) lead will be considered to be lead-bearing.

(16) "Leeward wall" means the furthest exterior wall of a total enclosure that is opposite the windward wall.

(17) "Maintenance activity" means any of the following routine maintenance and repair activities that could generate fugitive lead dust:

- (A) Replacement or repair of refractory, or any internal or external part of equipment used to process, handle, or control lead-containing materials.
- (B) Replacement of any duct section used to convey lead-containing exhaust.
- (C) Metal cutting or welding that penetrates the metal structure of any equipment, and its associated components, used to process lead-containing material so that lead dust within the internal structure or its components can become fugitive lead dust.
- (D) Resurfacing, repair, or removal of ground, pavement, concrete, or asphalt.

(18) "Materials storage and handling area" means any area of a secondary lead smelter where lead-bearing materials are stored or handled between process steps including, but not limited to areas in which materials are stored in open piles, bins, or tubs, and areas in which material is prepared for charging to a smelting furnace. Lead-bearing materials in these areas include, but are not limited to, the following:

- (A) Broken battery components.
- (B) Reverberatory furnace slag.
- (C) Flue dust.
- (D) Dross.

(19) "Natural draft opening" means any permanent opening in an enclosure that:

- (A) remains open during operation of a secondary lead smelter; and
- (B) is not connected to a duct in which a fan is installed.

(20) "New emissions unit" means any affected emissions unit at a secondary lead smelter that was constructed or reconstructed after May 19, 2011. The term does not include a building that is constructed for the purpose of controlling fugitive emissions from an existing emissions unit.

(21) "Partial enclosure" means a structure comprised of walls or partitions on at least three (3) sides or three-quarters (3/4) of the perimeter surrounding stored materials or process equipment to prevent the entrainment of particulate matter into the air.

(22) "Pavement cleaning" means the use of vacuum equipment, water sprays, or a combination thereof to remove dust or other accumulated material from the paved areas of a secondary lead smelter.

(23) "Plant roadway" means any area of a secondary lead smelter outside of a total enclosure that is subject to vehicle traffic, including traffic by forklifts, front-end loaders, or vehicles carrying whole batteries or cast lead ingots. The term does not include employee and visitor parking areas, provided they are not subject to traffic by vehicles carrying lead-bearing materials.

- (24) "Pressurized dryer breaching seal" means a seal system connecting the dryer transition pieces that is maintained at a higher pressure than the inside of the dryer.
- (25) "Process fugitive emissions source" means a source of hazardous air pollutant emissions at a secondary lead smelter that is associated with lead smelting or refining, but is not the primary exhaust stream from a smelting furnace, and is not a fugitive dust source. Process fugitive emissions sources include, but are not limited to, the following:
- (A) Smelting furnace charging points.
 - (B) Smelting furnace lead and slag taps.
 - (C) Refining kettles.
 - (D) Agglomerating furnaces.
 - (E) Drying kiln transition pieces.
- (26) "Process vent" means the following:
- (A) Furnace vents.
 - (B) Dryer vents.
 - (C) Agglomeration furnace vents.
 - (D) Vents from battery breakers.
 - (E) Vents from buildings containing lead-bearing material.
 - (F) Any ventilation system controlling lead emissions.
- (27) "Refining kettle" means an open-top vessel that is constructed of cast iron or steel and is indirectly heated from below and contains molten lead for the purpose of refining and alloying the lead, including the following:
- (A) Pot furnaces.
 - (B) Receiving kettles.
 - (C) Holding kettles.
- (28) "Reverberatory furnace" means a refractory-lined furnace that uses one (1) or more flames to heat the walls and roof of the furnace and lead-bearing scrap to a temperature of greater than nine hundred eighty (980) degrees Celsius so that lead compounds are chemically reduced to elemental lead metal.
- (29) "Rotary furnace," or "rotary reverberatory furnace" means a furnace consisting of a refractory-lined chamber that rotates about a horizontal axis and that uses one (1) or more flames to heat the walls of the furnace and lead-bearing scrap to a temperature of greater than nine hundred eighty (980) degrees Celsius so that lead compounds are chemically reduced to elemental lead metal.
- (30) "Secondary lead smelter" means any source where lead-bearing scrap material is recycled into elemental lead or lead alloys by smelting, including, but not limited to, lead-acid batteries.
- (31) "Shutdown" means the period when no lead-bearing materials are being fed to the furnace and smelting operations have ceased during which the furnace is cooled from steady-state operating temperature to ambient temperature.
- (32) "Smelting" means the chemical reduction of lead compounds to elemental lead or lead alloys through processing in high-temperature furnaces at a temperature of greater than nine hundred eighty (980) degrees Celsius, including, but not limited to, the following:
- (A) Blast furnaces.
 - (B) Reverberatory furnaces.
 - (C) Rotary furnaces.
 - (D) Electric furnaces.
- (33) "Startup" means the period when no lead-bearing materials have been fed to the furnace and smelting operations have not yet commenced during which the furnace is heated from ambient temperature to steady-state operating temperature.
- (34) "Total enclosure" means a containment building that is completely enclosed with a floor, walls, and a roof to prevent exposure to the elements and to assure containment of lead-bearing material with limited openings to allow access and egress for people and vehicles. The total enclosure must provide an effective barrier against fugitive dust emissions so that the:
- (A) direction of air flow through any openings is inward; and
 - (B) enclosure is maintained under constant negative pressure.
- (35) "Vehicle wash" means a device for removing dust and other accumulated material from the wheels, body, and underside of a vehicle to prevent the inadvertent transfer of lead-contaminated material to another area of a secondary lead smelter or to public roadways.
- (36) "Wet suppression" means the use of water, water combined with a chemical surfactant, or a chemical binding agent to prevent the entrainment of dust into the air from fugitive dust sources.
- (37) "Windward wall" means the exterior wall of a total enclosure that is most impacted by the wind in its most prevailing direction determined by a wind rose using available data from the closest representative meteorological station.

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326 IAC 20-13.1-3 Emission limitations; lead standards for Exide Technologies, Incorporated

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-15; IC 13-17

Sec. 3. (a) In addition to the applicable requirements of this rule, Exide Technologies, Inc., Muncie, shall comply with the following lead emission limitations and operating provisions:

Emission Unit	Emission Limitation mg/dscm
Ventilation baghouse	0.5
Refinery baghouse	0.5
Bin room baghouse	0.5
North scrubber	1.0
South scrubber	1.0
Battery breaker scrubber	0.5

(b) For new emission units, Exide Technologies, Inc. shall comply with the emission limitations under section 5(c) of this rule.

(c) Exide Technologies, Inc., shall comply with the following requirements by October 1, 2013:

- (1) Section 1 of this rule.
- (2) Section 2 of this rule.
- (3) Subsection (a).
- (4) Section 5(b) and 5(h) of this rule.
- (5) Sections 6 through 9 of this rule.
- (6) Section 10(a) through 10(d) of this rule.
- (7) Section 11(a) through 11(c) and 11(f) of this rule.
- (8) Section 12(a) of this rule.
- (9) Section 14(a), 14(b), 14(c)(1) through 14(c)(8), 14(c)(10) through 14(c)(13), 14(c)(15) through 14(c)(17), 14(d), 14(e)(1), 14(e)(4) through 14(e)(7), and 14(e)(9) through 14(e)(12) of this rule.

(*Air Pollution Control Division; 326 IAC 20-13.1-3; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA; errata filed Jan 14, 2014, 8:39 a.m.: 20140129-IR-326140018ACA*)

326 IAC 20-13.1-4 Emission limitations; lead standards for Quemetco, Incorporated

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-15; IC 13-17

Sec. 4. (a) In addition to the applicable requirements of this rule, Quemetco, Inc., Indianapolis, shall comply with the following lead emission limitations and operating provisions:

Emission Unit	Emission Limitation mg/dscm
Stack 100	1.0
Stack 101	0.5
Stack 102	0.5
Stack 103	0.5
Stack 104	0.5
Stack 105	0.5
Stack 106	0.5
Stack 107	0.5
Stack 108	0.5
Stack 109	0.5
Stack 111	1.0

Process fugitive and fugitive dust emissions from stacks 101 through 109 shall be vented to the atmosphere through HEPA filters that have been certified by the manufacturer to remove ninety-nine and ninety-seven hundredths percent (99.97%) of all particles

three-tenths (0.3) micrometers and larger.

(b) For new emission units, Quemetco, Inc. shall comply with the emission limitations under section 5(c) of this rule. (*Air Pollution Control Division; 326 IAC 20-13.1-4; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA*)

326 IAC 20-13.1-5 Emission limitations and operating provisions

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-15; IC 13-17

Sec. 5. (a) The owner or operator of a secondary lead smelter not described in section 3 or 4 of this rule shall maintain the following concentrations of lead compounds for affected emission units constructed or reconstructed on or before May 19, 2011:

- (1) From any process vent, at or below one (1.0) milligram of lead per dry standard cubic meter (forty-three hundred-thousandths (0.00043) grains of lead per dry standard cubic foot).
- (2) From any process fugitive emissions source, at or below five-tenths (0.5) milligram of lead per dry standard cubic meter (twenty-two hundred-thousandths (0.00022) grains of lead per dry standard cubic foot).
- (3) From vents venting fugitive dust sources, at or below five-tenths (0.5) milligram of lead per dry standard cubic meter (twenty-two hundred-thousandths (0.00022) grains of lead per dry standard cubic foot).

(b) The owner or operator of a secondary lead smelter shall comply with the following lead emission limitations and operating provisions for affected emission units constructed or reconstructed on or before May 19, 2011:

- (1) The owner or operator of a secondary lead smelter shall maintain the flow-weighted average concentration of lead compounds in vent gases from a secondary lead smelter at or below two-tenths (0.2) milligrams per dry standard cubic meter (eighty-seven millionths (0.000087) grains of lead per dry standard cubic foot).
- (2) The owner or operator of a secondary lead smelter shall demonstrate compliance with the flow-weighted average emissions limit on a twelve (12) month rolling average basis, calculated monthly using the most recent test data available.
- (3) Until twelve (12) monthly weighted average emission rates have been accumulated, the owner or operator of a secondary lead smelter shall calculate only the monthly average weighted emissions rate.
- (4) The owner or operator of a secondary lead smelter shall use the following equation to calculate the flow-weighted average concentration of lead compounds from process vents:

$$C_{FWA} = \frac{\sum_{i=1}^n F_i \times C_i}{\sum_i F_i}$$

Where: C_{FWA} = Flow-weighted average concentration of all process vents.
 n = Number of process vents.
 F_i = Flow rate from process vent i in dry standard cubic feet per minute, as measured during the most recent compliance test.
 C_i = Concentration of lead in process vent i , as measured during the most recent compliance test.

(5) Each month, the owner or operator of a secondary lead smelter shall use the concentration of lead and flow rate obtained during the most recent compliance test performed prior to or during that month to perform the calculation using the equation in subdivision (4).

(6) If a continuous emissions monitoring system (CEMS) is used to measure the concentration of lead in a vent, the monthly average lead concentration and monthly average flow rate must be used rather than the most recent compliance test data.

(c) For new emission units, the owner or operator of a secondary lead smelter shall maintain the concentration of lead compounds in any process vent gas at or below twenty-hundredths (0.20) milligrams of lead per dry standard cubic meter (eighty-seven millionths (0.000087) grains of lead per dry standard cubic foot).

(d) The owner or operator of a secondary lead smelter shall meet the applicable emission limits for total hydrocarbons and dioxins and furans from furnaces specified in the following table. There are no standards for dioxins and furans during periods of startup and shutdown.

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Emission Unit	Total Hydrocarbon (Parts per million by volume expressed as propane corrected to four percent (4%) carbon dioxide)	Dioxin and furan (nanograms per dry standard cubic meter expressed as toxic equivalency quotient (TEQ) corrected to seven percent (7%) oxygen)
Collocated blast furnace and reverberatory furnace (new and existing)	20	0.50
Collocated blast furnace and reverberatory furnace when the reverberatory furnace is not operating for units that commence construction or reconstruction on or before June 9, 1994	360	170
Collocated blast furnace and reverberatory furnace when the reverberatory furnace is not operating for units that commence construction or reconstruction after June 9, 1994	70	170
Blast furnaces that commence construction or reconstruction on or before June 9, 1994	360	170
Blast furnaces that commence construction or reconstruction after June 9, 1994	70	170
Blast furnaces that commence construction or reconstruction after May 19, 2011	70	10
Reverberatory and electric furnaces that commence construction or reconstruction on or before May 19, 2011	12	0.20
Reverberatory and electric furnaces that commence construction or reconstruction after May 19, 2011	12	0.10

(e) If the owner or operator of a secondary lead smelter combines furnace emissions from multiple types of furnaces and these furnaces do not meet the definition of collocated blast furnace and reverberatory furnace, the owner or operator of a secondary lead smelter shall calculate the emissions limit for the combined furnace stream using the following equation:

$$C_{EL} = \frac{\sum_{i=1}^n F_i \times C_{ELi}}{\sum_i F_i}$$

- Where:
- C_{EL} = Flow-weighted average emissions limit (concentration) of combined furnace vents.
 - n = Number of furnace vents.
 - F_i = Flow rate from furnace vent i in dry standard cubic feet per minute.
 - C_{ELi} = Emissions limit (concentration) of pollutant in furnace vent i , as specified in subsection (d).

(f) If the owner or operator of a secondary lead smelter combines furnace emissions with the furnace charging process fugitive emissions and discharges them to the atmosphere through a common emissions point, the owner or operator of a secondary lead smelter shall demonstrate compliance with the applicable total hydrocarbons concentration limit specified in subsection (d) at a location downstream from the point at which the two (2) emission streams are combined.

(g) If the owner or operator of a secondary lead smelter does not combine the furnace charging process fugitive emissions with the furnace process emissions, and discharges the emissions to the atmosphere through separate emission points, the owner or operator of a secondary lead smelter shall maintain the total hydrocarbons concentration in the exhaust gas at or below twenty (20) parts per million by volume, expressed as propane and corrected to four percent (4%) carbon dioxide.

(h) At all times, the owner or operator of a secondary lead smelter shall operate and maintain any affected emission unit, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether appropriate operation and maintenance procedures are being used will be based on information available to the department that may include, but is not limited to, the following:

- (1) Monitoring results.
- (2) Review of operation and maintenance procedures.

(3) Review of operation and maintenance records.

(4) Inspection of the source.

(i) If the owner or operator of a secondary lead smelter owns or operates a unit subject to emission limits in subsection (d), the owner or operator of a secondary lead smelter shall minimize the unit's startup and shutdown periods following the manufacturer's recommended procedures, if available. The owner or operator of a secondary lead smelter shall develop and follow standard operating procedures designed to minimize emissions of total hydrocarbons for each startup or shutdown scenario anticipated. The owner or operator of a secondary lead smelter shall submit a signed statement in the Notification of Compliance Status report that indicates that the owner or operator of a secondary lead smelter conducted startups and shutdowns according to the manufacturer's recommended procedures, if available, and the standard operating procedures designed to minimize emissions of total hydrocarbons.

(j) In addition to complying with the applicable emission limits for dioxins and furans listed in subsection (d), the owner or operator of a secondary lead smelter shall operate a process to separate plastic battery casing materials from all automotive batteries prior to introducing feed into a furnace. (*Air Pollution Control Division; 326 IAC 20-13.1-5; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA*)

326 IAC 20-13.1-6 Total enclosure requirements

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-15; IC 13-17

Sec. 6. (a) The owner or operator of a secondary lead smelter shall operate the following process fugitive emissions sources and fugitive dust sources in a total enclosure that meets the requirements in subsection (c) that is maintained at negative pressure at all times and vented to a control device designed to capture lead particulate:

- (1) Smelting furnaces.
- (2) Smelting furnace charging areas.
- (3) Lead taps, slag taps, and molds during tapping.
- (4) Battery breakers.
- (5) Refining kettles, casting areas.
- (6) Dryers.
- (7) Agglomerating furnaces and agglomerating furnace product taps.
- (8) Material handling areas for any lead-bearing materials except those listed in subsection (b).
- (9) Areas where dust from fabric filters, sweepings, or used fabric filters are processed.

(b) The owner or operator of a secondary lead smelter is not required to maintain a total enclosure in the following areas unless the area is in a total enclosure described in subsection (a):

- (1) Lead ingot product handling areas.
- (2) Stormwater and wastewater treatment areas.
- (3) Intact battery storage areas.
- (4) Areas where lead-bearing material is stored in closed containers or enclosed mechanical conveyors.
- (5) Areas where clean battery casing material is handled.

(c) The owner or operator of a secondary lead smelter shall do the following:

- (1) Construct and operate a total enclosure for the process fugitive emissions sources and fugitive dust sources listed in subsection (a) that is free of cracks, gaps, corrosion, or other deterioration that could allow lead-bearing material to be released from the primary barrier.
- (2) Put measures in place to prevent the tracking of lead-bearing material out of the plant by personnel or by equipment used in handling the material.
- (3) Designate an area to decontaminate equipment and collect and properly manage any rinsate.
- (4) Ventilate the total enclosure for the process fugitive emissions sources and fugitive dust sources listed in subsection (a) continuously to ensure negative pressure values of at least thirteen-thousandths (0.013) millimeters of mercury (seven-thousandths (0.007) inches of water).
- (5) Maintain an inward flow of air through all natural draft openings of the total enclosure.
- (6) Inspect total enclosures and structures that contain any lead-bearing material at least once per month.
- (7) Repair any gaps, breaks, separations, leak points, or other possible routes for emissions of lead to the atmosphere within one (1) week of identification unless the owner or operator of a secondary lead smelter receives approval for an extension from the department and U.S. EPA before the repair period is exceeded.

(*Air Pollution Control Division; 326 IAC 20-13.1-6; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA; errata filed Jan 14, 2014, 8:39 a.m.: 20140129-IR-326140018ACA*)

326 IAC 20-13.1-7 Total enclosure monitoring requirements

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-15; IC 13-17

Sec. 7. (a) In addition to the requirements in section 1(d) of this rule, and the requirements in section 6 of this rule, the owner or operator of a secondary lead smelter using a total enclosure shall do the following:

(1) Submit a monitoring system plan describing the installation and operation of a continuous monitoring system that meets the requirements of subdivisions (2) and (3). The plan shall be postmarked or hand delivered to the department one hundred twenty (120) days prior to installation of the continuous monitoring system.

(2) The owner or operator of a secondary lead smelter shall install, operate, and maintain a minimum of one (1) building digital differential pressure monitoring system to continuously monitor each total enclosure at each of the following three

(3) walls in each total enclosure that has a total ground surface area of ten thousand (10,000) square feet or more:

(A) The leeward wall.

(B) The windward wall.

(C) An exterior wall that connects the leeward and windward wall at a location defined by the intersection of a perpendicular line between a point on the connecting wall and a point on its furthest opposite exterior wall, and intersecting within plus or minus ten (10) meters of the midpoint of a straight line between the two (2) other monitors specified. The midpoint monitor must not be located on the same wall as either of the other two (2) monitors.

(3) The owner or operator of a secondary lead smelter shall install and maintain a minimum of one (1) building digital differential pressure monitoring system at the leeward wall of each total enclosure that has a total ground surface area of less than ten thousand (10,000) square feet.

(b) Within one hundred eighty (180) days after written approval of the continuous monitoring system plan by the department, the owner or operator of a secondary lead smelter shall install and operate a continuous monitoring system that consists of the following:

(1) A digital differential pressure sensor capable of measuring pressure within a range of one-hundredth (0.01) to two-tenths (0.2) millimeters mercury (five-thousandths (0.005) to eleven-hundredths (0.11) inches of water) with a minimum accuracy of plus or minus one-thousandth (0.001) millimeters of mercury (five ten-thousandths (0.0005) inches of water).

(2) A processor.

(3) An alarm.

(4) A continuous recording device.

(c) The owner or operator of a secondary lead smelter shall calibrate each digital differential pressure monitoring system in accordance with the manufacturer's specifications at least once every twelve (12) calendar months or more frequently if recommended by the manufacturer.

(d) The owner or operator of a secondary lead smelter shall obtain prior written approval from the department for any changes to the location or operation of the continuous monitoring system.

(e) The owner or operator of a secondary lead smelter shall initiate corrective actions within thirty (30) minutes of a monitoring system alarm.

(f) The owner or operator of a secondary lead smelter shall notify the department within seven (7) days of any physical changes to the total enclosure including, but not limited to, ventilation capacity and building size.

(g) The owner or operator of a secondary lead smelter shall maintain the following on site for a period of three (3) years and have available the following records for an additional two (2) years:

(1) Records of the pressure differential.

(2) Logs of monitoring system alarms, including date and time.

(3) Logs of corrective actions, including date and time.

(Air Pollution Control Division; 326 IAC 20-13.1-7; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA)

326 IAC 20-13.1-8 Fugitive dust source requirements

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-15; IC 13-17

Sec. 8. (a) The owner or operator of a secondary lead smelter shall prepare and at all times operate in accordance with a standard operating procedures manual that describes in detail the measures that will be put in place and implemented to control the fugitive dust emissions from the following:

(1) Plant roadways.

(2) Plant buildings.

- (3) Accidental releases.
- (4) Battery storage areas.
- (5) Equipment maintenance activities.
- (6) Material storage areas.
- (7) Material handling areas.

(b) The owner or operator of a secondary lead smelter shall submit the standard operating procedures manual to the department for review and approval in accordance with section 13(b) of this rule and at any time changes are made.

(c) The controls specified in the standard operating procedures manual must, at a minimum, include the following requirements:

(1) Where a cleaning practice is specified, the owner or operator of a secondary lead smelter shall clean by wet wash or a vacuum equipped with a filter rated by the manufacturer to achieve ninety-nine and ninety-seven hundredths percent (99.97%) capture efficiency for three-tenths (0.3) micron particles in a manner that does not generate fugitive lead dust.

(2) The owner or operator of a secondary lead smelter shall pave all areas subject to vehicle traffic and shall clean the pavement twice per day, except on days when natural precipitation makes cleaning unnecessary or when sand or a similar material has been spread on plant roadways to provide traction on ice or snow. Limited access and limited use roadways such as unpaved roads to remote locations on the property may be exempt from this requirement if they are used no more than one (1) round trip per day.

(3) The owner or operator of a secondary lead smelter shall initiate cleaning of all affected areas within one (1) hour after detection of any accidental release of lead dust that exceeds ten (10) pounds in accordance with the reportable quantity requirements for lead at 40 CFR 302.4*.

(4) The owner or operator of a secondary lead smelter shall inspect any batteries that are not stored in a total enclosure once each week and move any broken batteries to an enclosure within seventy-two (72) hours of identification. The owner or operator of a secondary lead smelter shall clean residue from broken batteries within seventy-two (72) hours of identification.

(5) The owner or operator of a secondary lead smelter shall wash each vehicle at each exit of the material storage and handling areas. The vehicle wash shall include washing of tires, undercarriage, and exterior surface of the vehicle followed by vehicle inspection.

(6) The owner or operator of a secondary lead smelter shall perform all maintenance activities that could generate lead dust in a manner that minimizes emissions of fugitive dust. This shall include one (1) or more of the following:

(A) Performing maintenance inside a total enclosure maintained at negative pressure.

(B) Performing maintenance inside a temporary enclosure and use of a vacuum system either equipped with a filter rated by the manufacturer to achieve a capture efficiency of ninety-nine and ninety-seven hundredths percent (99.97%) for three-tenths (0.3) micron particles or routed to an existing control device permitted for this activity.

(C) Performing maintenance inside a partial enclosure and use of wet suppression sufficient to prevent dust formation.

(D) Decontamination of equipment prior to removal from an enclosure.

(E) Immediate repair of ductwork or structure leaks without an enclosure if the time to construct a temporary enclosure would exceed the time to make a temporary or permanent repair, or if construction of an enclosure would cause a higher level of emissions than if an enclosure were not constructed.

(F) Activities required for inspection of fabric filters and maintenance of filters that are in need of removal and replacement are not required to be conducted inside of total enclosures. Used fabric filters shall be placed in sealed plastic bags or containers prior to removal from a baghouse.

(7) The owner or operator of a secondary lead smelter shall collect and transport all lead-bearing dust within closed conveyor systems or in sealed, leak-proof containers unless the collection and transport activities are contained within a total enclosure. All other lead-bearing material must be contained and covered for transport outside of a total enclosure in a manner that prevents spillage or dust formation. Intact batteries and lead ingot product are exempt from the requirement to be covered for transport.

(d) The standard operating procedures manual must specify that records be maintained of all pavement cleaning, vehicle washing, and battery storage inspection activities performed to control fugitive dust emissions.

(e) The owner or operator of a secondary lead smelter shall pave all grounds or plant ground cover sufficient to prevent wind-blown dust. The owner or operator of a secondary lead smelter may use dust suppressants on unpaved areas that will not support a ground cover, such as roadway shoulders, steep slopes, and limited access and limited use roadways.

(f) As provided in the July 1, 2012, edition of 40 CFR 63.6(g)*, as an alternative to the requirements specified in this section, the owner or operator of a secondary lead smelter can demonstrate to the department that an alternative measure is equivalent or more protective of the environment than a practice described in this section.

*These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 20-13.1-8; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA*)

326 IAC 20-13.1-9 Bag leak detection system requirements

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-15; IC 13-17

Sec. 9. (a) The owner or operator of a secondary lead smelter shall install and continuously operate a bag leak detection system for all baghouses controlling process vents and process fugitive emissions sources unless a system meeting the requirements of section 10(g) of this rule for a CEMS is installed for monitoring the concentration of lead. Baghouses equipped with HEPA filters or baghouses followed by wet electrostatic precipitators used as secondary control devices are exempt from this requirement. The owner or operator of a secondary lead smelter shall maintain and operate each baghouse controlling process vents and process fugitive emissions sources to meet the following conditions:

(1) The alarm on the system does not activate for more than five percent (5%) of the total operating time in a six (6) month reporting period.

(2) The owner or operator of a secondary lead smelter shall include a corrective action plan in its standard operating procedures manual required in subsection (c) that specifies the procedures that will be used to determine and record the time and cause of the alarm in addition to necessary corrective actions taken to minimize emissions as follows:

(A) The procedures used to determine the cause of the alarm shall be initiated within thirty (30) minutes of the alarm.

(B) Procedures to determine and correct the cause of the alarm may include, but are not limited to, the following standard operating procedures:

(i) Inspecting the baghouse for air leaks, torn or broken filter elements, or any other malfunction that may cause an increase in emissions.

(ii) Sealing off defective bags or filter media.

(iii) Replacing defective bags or filter media, or otherwise repairing the control device.

(iv) Sealing off a defective baghouse compartment.

(v) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system.

(vi) Shutting down the process producing the particulate emissions.

(b) The owner or operator of a secondary lead smelter shall demonstrate compliance with the bag leak detection system requirements by submitting reports showing that the alarm on the system does not activate for more than five percent (5%) of the total operating time in a six (6) month period or two hundred nineteen (219) hours, if operated for four thousand three hundred eighty (4,380) hours in the six (6) month period, whichever is less.

(c) The owner or operator of a secondary lead smelter shall calculate the percentage of total operating time the alarm on the bag leak detection system activates as the ratio of the sum of alarm times to the total operating time multiplied by one hundred (100).

(d) The owner or operator of a secondary lead smelter shall prepare and at all times operate in accordance with a standard operating procedures manual that describes in detail procedures for inspection, maintenance, and bag leak detection, and corrective action plans for all baghouses (fabric filters or cartridge filters) that are used to control process vents, process fugitive, or fugitive dust emissions from any source subject to the lead emission standards in sections 3, 4, 5, 6, and 8 of this rule, including those used to control emissions from building ventilation.

(e) The owner or operator of a secondary lead smelter shall submit the standard operating procedures manual for baghouses required by subsection (d) to the department for review and approval in accordance with section 13(b) of this rule.

(f) The procedures that the owner or operator of a secondary lead smelter specifies in the standard operating procedures manual for inspections and routine maintenance must, at a minimum, include the following requirements:

(1) Daily monitoring of pressure drop across each baghouse cell.

(2) Weekly confirmation that dust is being removed from hoppers through visual inspection, or equivalent means of ensuring the proper functioning of removal mechanisms.

(3) Daily check of compressed air supply for pulse-jet baghouses.

(4) An appropriate methodology for monitoring cleaning cycles to ensure proper operation.

(5) Monthly check of bag cleaning mechanisms for proper functioning through visual inspection or equivalent means.

(6) Monthly check of bag tension on reverse air and shaker-type baghouses. The checks are not required for shaker-type baghouses using self-tensioning or spring loaded devices.

(7) Quarterly confirmation of the physical integrity of the baghouse through visual inspection of the baghouse interior for air leaks.

(8) Quarterly inspection of fans for wear, material buildup, and corrosion through visual inspection, vibration detectors, or equivalent means.

(9) Except as provided in subsection (a), continuous operation of a bag leak detection system, unless a system meeting the requirements of section 10(g) of this rule for a CEMS is installed for monitoring the concentration of lead.

(g) The procedures specified in the standard operating procedures manual for baghouse maintenance shall include, at a minimum, a preventative maintenance schedule that is consistent with the baghouse manufacturer's instructions for routine and long-term maintenance.

(h) The owner or operator of a secondary lead smelter shall operate a bag leak detection system that meets the following requirements:

(1) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of one (1) milligram per actual cubic meter (forty-four hundred-thousandths (0.00044) grains per actual cubic foot) or less.

(2) The bag leak detection system sensor must provide output of relative particulate matter loadings, and the owner or operator of a secondary lead smelter shall continuously record the output from the bag leak detection system.

(3) The bag leak detection system must be equipped with an alarm system that will alert appropriate plant personnel when an increase in relative particulate loadings is detected over a preset level. The alarm must be located where it can be heard by the appropriate plant personnel.

(4) Each bag leak detection system must be installed, calibrated, operated, and maintained consistent with the U.S. EPA guidance document "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015, September 1997)* and with the manufacturer's written specifications and recommendations.

(5) The initial adjustment of the system must, at a minimum, consist of establishing the following:

(A) The baseline output by adjusting the sensitivity (range).

(B) The averaging period of the device.

(C) The alarm set points.

(D) The alarm delay time.

(6) Following initial adjustment and except as detailed in the standard operating procedures and maintenance plan required under subsection (f), the owner or operator of a secondary lead smelter shall not adjust the system's:

(A) sensitivity or range;

(B) averaging period;

(C) alarm set points; or

(D) alarm delay time.

The owner or operator of a secondary lead smelter shall not increase the sensitivity of the system by more than one hundred percent (100%) or decrease the sensitivity by more than fifty percent (50%) over a three hundred sixty-five (365) day period unless the adjustment follows a complete baghouse inspection that demonstrates that the baghouse is in good operating condition.

(7) For negative pressure, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the owner or operator of a secondary lead smelter shall install the bag leak detector downstream of the baghouse and upstream of any wet acid gas scrubber.

(8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(i) In addition to the record keeping and reporting requirements under section 14 of this rule, the owner or operator of a secondary lead smelter shall comply with the following:

(1) Submit a report within thirty (30) days after the end of each preceding six (6) month period ending June 30 and December 31 of each year that includes the following:

(A) A description of the actions taken following each bag leak detection system alarm pursuant to subsection (a).

(B) Calculations of the percentage of total operating time, or the total operating time in hours and minutes the alarm on the bag leak detection system was activated during the reporting period.

(2) Records for bag leak detection systems shall be maintained on site for a period of three (3) years and be available for an additional two (2) years and shall include the following information:

(A) Records of bag leak detection system output.

(B) Identification of the date and time of all bag leak detection system alarms.

(C) The time that procedures to determine the cause of the alarm were initiated.

(D) The cause of the alarm.

(E) An explanation of the corrective actions taken.

(F) The date and time the cause of the alarm was corrected.

(G) Records of total operating time of an affected source during smelting operations for each six (6) month period.

*This document is incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 20-13.1-9; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA*)

326 IAC 20-13.1-10 Other requirements

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-15; IC 13-17

Sec. 10. (a) The owner or operator of a secondary lead smelter shall comply with the following opacity limitations:

(1) Stacks exhausting process vents, process fugitive emissions, or fugitive dust emissions shall not exceed five percent (5%) opacity from particulate matter emissions for any one (1) six (6) minute averaging period as measured by 40 CFR 60, Appendix A, Method 9*.

(2) Exterior dust handling systems of dry collectors of lead emitting processes, such as augers, hoppers, and transfer points, shall not discharge visible emissions to the atmosphere in excess of five percent (5%) of an observation period consisting of three (3) twenty (20) minute periods, as determined by 40 CFR 60, Appendix A, Method 22*. The provisions under this subdivision for dust handling systems shall not apply during maintenance and repair of the dust handling systems. During maintenance and repair of the dust handling system, the owner or operator shall take reasonable measures to prevent or minimize fugitive dust emissions.

(3) The opacity limitations in this subsection shall only apply to particulate matter emissions.

(b) Ventilation air from the following shall be conveyed or ventilated to a control device:

(1) All enclosure hoods and total enclosures.

(2) All dryer emission vents.

(3) Agglomerating furnace emission vents.

(c) If the owner or operator of a secondary lead smelter uses baghouses equipped with HEPA filters as a secondary filter used to control emissions from any source subject to the lead emission standards in sections 3 through 5 of this rule, the owner or operator of secondary lead smelter must monitor and record the pressure drop across each HEPA filter system daily as follows:

(1) If the pressure drop is outside the limit specified by the filter manufacturer, the owner or operator of a secondary lead smelter shall take the appropriate corrective measures, including, but not limited to, the following:

(A) Inspecting the filter and filter housing for air leaks and torn or broken filters.

(B) Replacing defective filter media, or otherwise repairing the control device.

(C) Sealing off a defective control device by routing air to other control devices.

(D) Shutting down the process producing the particulate emissions.

(2) The owner or operator of a secondary lead smelter shall maintain purchasing records and manufacturer's specifications of any HEPA filters installed on process fugitive emissions and fugitive dust stacks demonstrating the filters have been certified by the manufacturer to remove ninety-nine and ninety-seven hundredths percent (99.97%) of all particles three-tenths (0.3) micrometers and larger. The records and manufacturer's specifications shall be:

(A) maintained on site for three (3) years; and

(B) available for an additional two (2) years.

(d) If the owner or operator of a secondary lead smelter uses a wet scrubber to control particulate matter and metal hazardous air pollutant emissions from a process vent to demonstrate continuous compliance with the emission standards, the owner or operator of a secondary lead smelter must monitor and record the pressure drop and water flow rate of the wet scrubber during the initial performance or compliance test conducted to demonstrate compliance with the applicable lead emission limits under sections 3 through 5 of this rule. Thereafter, the owner or operator of a secondary lead smelter shall:

(1) monitor and record the pressure drop and water flow rate values at least once every hour; and

(2) maintain the pressure drop and water flow rate at levels no lower than thirty percent (30%) below the pressure drop and water flow rate measured during the initial performance or compliance test.

(e) The owner or operator of a secondary lead smelter shall demonstrate continuous compliance with the total hydrocarbon and dioxin and furan emission standards. During periods of startup and shutdown, the requirements of subdivision (4) do not apply. Instead, the owner or operator of a secondary lead smelter shall demonstrate compliance with the standard for total hydrocarbon by meeting the requirements of section 5(i) of this rule. The requirements to demonstrate continuous compliance are as follows:

(1) The owner or operator of a secondary lead smelter shall install, calibrate, maintain, and continuously operate a device

to monitor and record the temperature of the afterburner or furnace exhaust streams consistent with the requirements for continuous monitoring systems in the July 1, 2012, edition of 40 CFR 63.8*.

(2) Prior to or in conjunction with the initial performance or compliance test to determine compliance with section 5(d) of this rule, the owner or operator of a secondary lead smelter shall conduct a performance evaluation for the temperature monitoring device according to the July 1, 2012, edition of 40 CFR 63.8(e)*. The definitions, installation specifications, test procedures, and data reduction procedures for determining calibration drift, relative accuracy, and reporting described in Performance Specification 2, 40 CFR 60, Appendix B, sections 2*, 3*, 5*, 7*, 8*, 9*, and 10* must be used to conduct the evaluation. The temperature monitoring device must meet the following performance and equipment specifications:

(A) The recorder response range must include zero (0) and one and one-half (1.5) times the average temperature identified in subdivision (3).

(B) The monitoring system calibration drift must not exceed two percent (2%) of one and one-half (1.5) times the average temperature identified in subdivision (3).

(C) The monitoring system relative accuracy must not exceed twenty percent (20%).

(D) The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or an alternate reference method, subject to the approval of U.S. EPA.

(3) The owner or operator of a secondary lead smelter shall monitor and record the temperature of the afterburner or the furnace exhaust streams every fifteen (15) minutes during the initial performance or compliance test for total hydrocarbons and dioxins and furans and determine an arithmetic average for the recorded temperature measurements.

(4) To demonstrate continuous compliance with the standards for total hydrocarbons and dioxins and furans, the owner or operator of a secondary lead smelter shall maintain an afterburner or exhaust temperature so that the average temperature in any three (3) hour period does not fall more than twenty-eight (28) degrees Celsius below the average established in subdivision (3).

(f) The owner or operator of a new emission unit subject to the requirements under sections 3 through 5 of this rule shall install, calibrate, maintain, and operate a CEMS for measuring lead emissions. In addition to the requirements for CEMS in the July 1, 2012, edition of 40 CFR 63.8(c) that are referenced in section 1(d) of this rule, the owner or operator of a secondary lead smelter shall comply with the requirements for CEMS specified in subsection (g) and the following requirements:

(1) The owner or operator of a new emission unit subject to the emission limits for lead compounds under sections 3 through 5 of this rule shall install a CEMS for measuring lead emissions within one hundred eighty (180) days of promulgation by U.S. EPA of performance specifications for lead CEMS.

(2) Prior to one hundred eighty (180) days after U.S. EPA promulgates performance specifications for CEMS used to measure lead concentrations, the owner or operator of a secondary lead smelter shall use the procedure described in section 11(a)(1) of this rule to determine compliance.

(3) Vents from control devices that serve only to control emissions from buildings containing lead-bearing materials are exempt from the requirement to install a CEMS for measuring lead emissions.

(g) If a CEMS is used to measure lead emissions, the owner or operator of a secondary lead smelter shall install a CEMS with a sensor in a location that provides representative measurement of the exhaust gas flow rate at the sampling location of the CEMS used to measure lead emissions, taking into account the manufacturer's recommendations. The flow rate sensor is that portion of the system that senses the volumetric flow rate and generates an output proportional to that flow rate. The owner or operator of a secondary lead smelter shall comply with the following requirements:

(1) The CEMS shall be designed to measure the exhaust gas flow rate over a range that extends from a value of at least twenty percent (20%) less than the lowest expected exhaust flow rate to a value of at least twenty percent (20%) greater than the highest expected exhaust gas flow rate.

(2) The CEMS shall be equipped with a data acquisition and recording system that is capable of recording values over the entire range specified in subdivision (1).

(3) The owner or operator of a secondary lead smelter shall perform an initial relative accuracy test of the CEMS in accordance with the applicable performance specification in 40 CFR 60, Appendix B*.

(4) The owner or operator of a secondary lead smelter shall operate the CEMS and record data during all periods of operation of the affected emission unit including periods of startup, shutdown, and malfunction, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments.

(5) If the owner or operator of a secondary lead smelter uses a CEMS to measure lead emissions, the owner or operator of a secondary lead smelter shall calculate the average lead concentration and flow rate monthly to determine compliance with sections 3 through 5 of this rule.

(6) When the CEMS is unable to provide quality assured data, the following requirements apply:

(A) When data are not available for periods of up to forty-eight (48) hours, the highest recorded hourly emissions

rate from the previous twenty-four (24) hours shall be used.

(B) When data are not available for forty-eight (48) or more hours, the maximum daily emissions rate based on the previous thirty (30) days shall be used.

*These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 20-13.1-10; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA; errata filed Jan 14, 2014, 8:39 a.m.: 20140129-IR-326140018ACA*)

326 IAC 20-13.1-11 Compliance testing

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-15; IC 13-17

Sec. 11. (a) Following the initial performance or compliance test to demonstrate compliance with the lead emission limits specified in sections 3 through 5 of this rule, the owner or operator of a secondary lead smelter shall conduct performance tests for lead compounds in accordance with the following schedule:

(1) Conduct an annual performance test for lead compounds from each process vent, no later than twelve (12) calendar months following the previous compliance test, unless the owner or operator of a secondary lead smelter installs and operates a CEMS meeting the requirements of the July 1, 2012, edition of 40 CFR 63.8*.

(2) If an annual compliance test demonstrates that a process vent emitted lead compounds at one-tenth (0.1) milligram of lead per dry standard cubic meter or less during the time of the annual compliance test, the owner or operator of a secondary lead smelter may submit a written request to the U.S. EPA applying for an extension of up to twenty-four (24) calendar months from the previous compliance test to conduct the next compliance test for lead compounds.

(b) The owner or operator of a secondary lead smelter that vents fugitive dust shall:

(1) conduct an initial compliance test only; and

(2) not be required to conduct testing on an annual or biennial basis.

Nothing in this subsection shall prohibit the department from requesting a compliance test in accordance with 326 IAC 2-1.1-11.

(c) Test notification and reporting shall be conducted in compliance with 326 IAC 3-6.

(d) Following the initial performance or compliance test to demonstrate compliance with the total hydrocarbon emission limits in section 5(d) of this rule, the owner or operator of a secondary lead smelter shall conduct performance tests for total hydrocarbons emissions in accordance with the following schedule:

(1) Conduct an annual performance test for total hydrocarbon emissions from each process vent that has established limits for total hydrocarbons, no later than twelve (12) calendar months following the previous compliance test, unless the owner or operator of a secondary lead smelter installs and operates a CEMS meeting the requirements of the July 1, 2012, edition of 40 CFR 63.8*.

(2) If an annual compliance test demonstrates that a process vent emitted total hydrocarbons at less than fifty percent (50%) of the allowable limit during the time of the annual compliance test, the owner or operator of a secondary lead smelter may submit a written request to U.S. EPA applying for an extension of up to twenty-four (24) calendar months from the previous compliance test to conduct the next compliance test for total hydrocarbons.

(e) Following the initial performance or compliance test to demonstrate compliance with the dioxin and furan emission limits specified in section 5(d) of this rule, the owner or operator of a secondary lead smelter shall conduct a performance test for dioxin and furan emissions from each process vent that has established limits for dioxins and furans at least once every six (6) years following the previous compliance test.

(f) The owner or operator of a secondary lead smelter shall conduct the performance tests specified in subsections (a), (d), and (e) under maximum representative operating conditions for the process. During the performance test, the owner or operator of a secondary lead smelter may operate the control device at maximum or minimum representative operating conditions for monitored control device parameters, whichever results in a lower emission reduction. Upon request, the owner or operator of a secondary lead smelter shall make available to the department any records necessary to determine the conditions of performance tests.

*This document is incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 20-13.1-11; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA*)

326 IAC 20-13.1-12 Compliance testing methods

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-15; IC 13-17

Sec. 12. (a) The owner or operator of a secondary lead smelter shall use the following test methods to determine compliance with the emission standards for lead compounds:

- (1) 40 CFR 60, Appendix A-1, Method 1* to select the sampling port location and the number of traverse points.
- (2) 40 CFR 60, Appendix A-1, Method 2* or 40 CFR 60, Appendix A-3, Method 5D, Section 8.3* for positive pressure fabric filters, to measure volumetric flow rate.
- (3) 40 CFR 60, Appendix A-2, Method 3*, 40 CFR 60, Appendix A-2, Method 3A*, or 40 CFR 60, Appendix A-2, Method 3B* to determine the dry molecular weight of the stack gas.
- (4) 40 CFR 60, Appendix A-3, Method 4* to determine moisture content of the stack gas.
- (5) 40 CFR 60, Appendix A-8, Method 12* or 40 CFR 60, Appendix A-8, Method 29* to determine compliance with the lead compound emission standards. The minimum sample volume must be two (2.0) dry standard cubic meters (seventy (70) dry standard cubic feet) for each run. The owner or operator of a secondary lead smelter shall perform three (3) test runs and determine compliance using the average of the three (3) runs.

(b) The owner or operator of a secondary lead smelter shall use the following test methods to determine compliance with the emission standards for total hydrocarbons:

- (1) 40 CFR 60, Appendix A-1, Method 1* to select the sampling port location and number of traverse points.
- (2) The Single Point Integrated Sampling and Analytical Procedure in 40 CFR 60, Appendix A, Method 3B* to measure the carbon dioxide content of the stack gases when using either 40 CFR 60, Appendix A-2, Method 3A* or 40 CFR 60, Appendix A-2, Method 3B*.
- (3) 40 CFR 60, Appendix A-3, Method 4* to measure moisture content of the stack gases.
- (4) 40 CFR 60, Appendix A-7, Method 25A* to measure total hydrocarbon emissions. The minimum sampling time must be one (1) hour for each run. The owner or operator of a secondary lead smelter shall perform a minimum of three (3) test runs. The owner or operator of a secondary lead smelter shall calculate a one (1) hour average total hydrocarbons concentration for each run and use the average of the three (3) one (1) hour averages to determine compliance.

(c) The owner or operator of a secondary lead smelter shall correct the measured total hydrocarbon concentrations to four percent (4%) carbon dioxide, specified as follows:

- (1) If the measured percent carbon dioxide is greater than four-tenths of one percent (0.4%) in each compliance test, the owner or operator of a secondary lead smelter shall determine the correction factor using the following equation:

$$F = \frac{4.0}{CO_2}$$

Where: F = Correction factor (no units).
 CO_2 = Percent carbon dioxide measured using 40 CFR 60, Appendix A-2, Method 3A* or 40 CFR 60, Appendix A-2, Method 3B*, where the measured carbon dioxide is greater than four-tenths of one percent (0.4%).

- (2) If the measured percent carbon dioxide is equal to or less than four-tenths of one percent (0.4%), the owner or operator of a secondary lead smelter shall use a correction factor (F) of ten (10).

(3) The owner or operator of a secondary lead smelter shall determine the corrected total hydrocarbons concentration by multiplying the measured total hydrocarbons concentration by the correction factor (F) determined for each compliance test.

(d) The owner or operator of a secondary lead smelter shall use the following test methods to determine compliance with the emission standards for dioxins and furans:

- (1) 40 CFR 60, Appendix A-1, Method 1* to select the sampling port location and the number of traverse points.
- (2) 40 CFR 60, Appendix A-1, Method 2* or 40 CFR 60, Appendix A-3, Method 5D, Section 8.3* for positive pressure fabric filters to measure volumetric flow rate.
- (3) 40 CFR 60, Appendix A-2, Method 3A* or 40 CFR 60, Appendix A-2, Method 3B* to determine the oxygen and carbon dioxide concentrations of the stack gas.
- (4) 40 CFR 60, Appendix A-3, Method 4* to determine moisture content of the stack gas.
- (5) 40 CFR 60, Appendix A-7, Method 23* to determine the dioxins and furans concentration.

(e) The owner or operator of a secondary lead smelter shall determine the dioxins and furans toxic equivalency through the following procedures:

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(1) Measure the concentration of each dioxins and furans congener shown in the following table using 40 CFR 60, Appendix A-7, Method 23*:

Dioxin/furan congener	Toxic equivalency factor (TEQ)
2,3,7,8-tetrachlorinated dibenzo-p-dioxin	1
1,2,3,7,8-pentachlorinated dibenzo-p-dioxin	0.5
1,2,3,4,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,7,8,9- hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,6,7,8- hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzo-p-dioxin	0.01
Octachlorinated dibenzo-p-dioxin	0.001
2,3,7,8-tetrachlorinated dibenzofuran	0.1
2,3,4,7,8-pentachlorinated dibenzofuran	0.05
1,2,3,7,8-pentachlorinated dibenzofuran	0.5
1,2,3,4,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,6,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,7,8,9-hexachlorinated dibenzofuran	0.1

(2) Correct the concentration of dioxins and furans in terms of toxic equivalency to seven percent (7%) oxygen using the following equation:

$$C_{adj} = \frac{C_{meas}(20.9 - 7)}{(20.9 - \%O_2)}$$

- Where:
- C_{adj} = Dioxins and furans concentration adjusted to seven percent (7%) oxygen.
 - C_{meas} = Dioxins and furans concentration measured in nanograms per dry standard cubic meter.
 - (20.9-7) = Twenty and nine-tenths percent (20.9%) oxygen minus seven percent (7%) oxygen (defined oxygen correction basis).
 - 20.9 = Percent of oxygen concentration in air.
 - $\%O_2$ = Percent of oxygen concentration measured on a dry basis.

(3) For each dioxins and furans congener measured as specified in subdivisions (1) and (2), multiply the congener concentration by its corresponding toxic equivalency factor.

(4) Sum the values calculated as specified in subdivision (3) to obtain the total concentration of dioxins and furans emitted in terms of toxic equivalency.

*These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 20-13.1-12; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA*)

326 IAC 20-13.1-13 Notification requirements

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-15; IC 13-17

Sec. 13. (a) The owner or operator of a secondary lead smelter shall comply with all of the notification requirements of the July 1, 2012, edition of 40 CFR 63.9*.

(b) The owner or operator of a secondary lead smelter shall submit the fugitive dust control standard operating procedures manual required under section 8 of this rule and the standard operating procedures manual for baghouses required under section 9 of this rule to the department along with a notification that the owner or operator of a secondary lead smelter is seeking review and approval of these plans and procedures. The owner or operator of a secondary lead smelter shall submit this notification no later than the effective date of this rule.

(c) For the owner or operator of a secondary lead smelter that commences construction or reconstruction after January 5, 2012, and starts up on or after the effective date of this rule the owner or operator of a secondary lead smelter shall submit this notification on or before one hundred eighty (180) days before startup of the constructed or reconstructed secondary lead smelter.

(d) For an affected source that has received a construction permit from the department on or before January 5, 2012, the owner or operator of a secondary lead smelter shall submit this notification no later than January 7, 2014.

*This document is incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 20-13.1-13; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA*)

326 IAC 20-13.1-14 Record keeping and reporting requirements

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-15; IC 13-17

Sec. 14. (a) The owner or operator of a secondary lead smelter shall comply with all of the record keeping and reporting requirements specified in the July 1, 2012, edition of 40 CFR 63.10* that are referenced in section 1(d) of this rule. Records shall be:

(1) maintained in a form suitable and readily available for expeditious review, in accordance with the July 1, 2012, edition of 40 CFR 63.10(b)(1)*; and

(2) kept on site for at least two (2) years after the date of occurrence, measurement, maintenance, corrective action, report, or record, in accordance with the July 1, 2012, edition of 40 CFR 63.10(b)(1)*.

(b) The standard operating procedure manuals required in sections 8 and 9 of this rule must be submitted to the department in electronic format for review and approval of the initial submittal and whenever an update is made to the procedures.

(c) The owner or operator of a secondary lead smelter shall maintain for a period of five (5) years the following records:

(1) Electronic records of the bag leak detection system output.

(2) An identification of the date and time of any bag leak detection system alarms.

(3) The time that procedures were initiated to determine the cause of any bag leak detection system alarm.

(4) The cause of any bag leak detection system alarm.

(5) An explanation of the corrective actions taken in response to any bag leak detection system alarms.

(6) The date and time the cause of any bag leak detection system alarms was corrected.

(7) All records of inspections and maintenance activities required in section 9(f) of this rule as part of the practices described in the standard operating procedures manual for baghouses required under section 9(d) of this rule.

(8) Electronic records of the pressure drop and water flow rate values for wet scrubbers used to control metal hazardous air pollutant emissions from process vents as required in section 10(d) of this rule.

(9) Electronic records of the output from the continuous temperature monitor required in section 10(e) of this rule, an identification of periods when the three (3) hour average temperature fell below the minimum temperature established under section 10(e)(4) of this rule, and an explanation of the corrective action taken.

(10) Electronic records of the continuous pressure monitors for total enclosures required in section 7 of this rule, and an identification of periods when the pressure was not maintained as required in section 6(c)(4) of this rule.

(11) Records of any time periods power was lost to the continuous pressure monitors for total enclosures required in section 7 of this rule and records of loss of power to the air handling system maintaining negative pressure on total enclosures.

(12) Records of the inspections of total enclosures required in section 6(c)(6) of this rule.

(13) Records of all cleaning and inspections required as part of the practices described in the standard operating procedures manual required under section 8 of this rule.

(14) Electronic records of the output of any CEMS installed to monitor lead emissions meeting the requirements in section 10(g) of this rule.

(15) Records of the occurrence and duration of each malfunction of operation or process equipment or the air pollution control equipment and monitoring equipment.

(16) Records of actions taken during periods of malfunction to minimize emissions in accordance with section 5(h) of this rule, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(17) Records of any periods of startup or shutdown of a furnace and actions taken to minimize emissions during that period in accordance with section 5(i) of this rule.

(d) The owner or operator of a secondary lead smelter shall comply with all of the reporting requirements specified in the July 1, 2012, edition of 40 CFR 63.10* in section 1(d) of this rule. The owner or operator of a secondary lead smelter shall also comply with the following requirements:

(1) The owner or operator of a secondary lead smelter shall submit reports no less frequently than specified under the

July 1, 2012, edition of 40 CFR 63.10(e)(3)*.

(2) Once a violation of the standard or excess emissions is reported, the owner or operator of a secondary lead smelter must follow the reporting format required under the July 1, 2012, edition of 40 CFR 63.10(e)(3)* until a request to reduce reporting frequency is approved by the department.

(e) In addition to the information required under the applicable sections of the July 1, 2012, edition of 40 CFR 63.10* in section 1(d) of this rule, the owner or operator of a secondary lead smelter shall include the following information in the reports required under subsection (d):

(1) Records of the concentration of lead in each process vent, and records of the rolling twelve (12) month flow-weighted average concentration of lead compounds in vent gases calculated monthly as required in section 5(b) of this rule, except during the first year when the concentration is calculated using the method described in section 5(b)(3) of this rule.

(2) Records of the concentration of total hydrocarbon and dioxins and furans in each process vent that has established limits for total hydrocarbon and dioxins and furans as required in section 5(d) of this rule.

(3) Records of all periods when monitoring using a CEMS for lead or total hydrocarbon was not in compliance with applicable limits.

(4) Records of all alarms from the bag leak detection system specified in section 9 of this rule.

(5) A description of the procedures taken following each bag leak detection system alarm in accordance with sections 9(a)(2) and 9(a)(3) *[sic]* of this rule.

(6) A summary of the records maintained as part of the practices described in the standard operating procedures manual for baghouses required under section 9 of this rule, including an explanation of the periods when the procedures were not followed and the corrective actions taken.

(7) An identification of the periods when the pressure drop and water flow rate of wet scrubbers used to control process vents dropped below the levels established in section 8 of this rule, and an explanation of the corrective actions taken.

(8) Records of the temperature monitor output, in three (3) hour block averages, for those periods when the temperature monitored in accordance with section 10(e) of this rule fell below the level established in section 10(e)(4) of this rule.

(9) Certification that the plastic separation process for battery breakers required in section 5(j) of this rule was operated at all times the battery breaker was in service.

(10) Records of periods when the pressure was not maintained as required in section 6(c)(4) of this rule or power was lost to the continuous pressure monitoring system as required in section 7 of this rule.

(11) If a malfunction occurred during the reporting period, the report must include the number, duration, and a brief description for each type of malfunction that occurred during the reporting period and caused or may have caused any applicable emissions limitation to be exceeded. The report must also include a description of actions taken during a malfunction of an affected emission unit to minimize emissions in accordance with section 5(h) of this rule, including actions taken to correct a malfunction.

(12) A summary of the fugitive dust control measures performed during the required reporting period, including an explanation of the periods when the procedures outlined in the standard operating procedures manual in accordance with section 8 of this rule were not followed and the corrective actions taken. The reports must not contain copies of the daily records required to demonstrate compliance with the requirements of the standard operating procedures manuals required under section 8 of this rule.

(13) Records of any periods of startup or shutdown of a furnace including an explanation of the periods when the procedures required in section 5(i) of this rule were not followed and the corrective actions taken.

(14) The owner or operator of a secondary lead smelter shall submit records as follows:

(A) As of the effective date of this rule, and within sixty (60) days after the date of completing each performance test, as defined in the July 1, 2012, edition of 40 CFR 63.2*, the owner or operator of a secondary lead smelter shall submit performance test data, except opacity data, electronically to U.S. EPA's Central Data Exchange by using the U.S. EPA's Electronic Reporting Tool. Only data collected using test methods compatible with the U.S. EPA's Electronic Reporting Tool are subject to this requirement to be submitted electronically into U.S. EPA's WebFIRE database.

(B) Within sixty (60) days after the date of completing each CEMS performance evaluation test, as defined in 40 CFR 63.2* and required by this rule, the owner or operator a secondary lead smelter shall submit the relative accuracy test audit data electronically in to U.S. EPA's Central Data Exchange by using the U.S. EPA's Electronic Reporting Tool as mentioned in clause (A). Only data collected using test methods compatible with the U.S. EPA's Electronic Reporting Tool are subject to the requirement to be submitted electronically into U.S. EPA's WebFIRE database.

(C) All reports required by this rule not subject to the requirements in clauses (A) and (B) must be sent to U.S. EPA at the appropriate address listed in the July 1, 2012, edition of 40 CFR 63.13*. U.S. EPA or the department may request a report in any form suitable for the specific case. U.S. EPA retains the right to require submittal

of reports subject to clauses (A) and (B) in paper format.

*These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 20-13.1-14; filed Jan 30, 2013, 12:34 p.m.: 20130227-IR-326110774FRA; errata filed Jan 14, 2014, 8:39 a.m.: 20140129-IR-326140018ACA*)