

ARTICLE 15. LEAD RULES

Rule 1. Lead Emission Limitations

326 IAC 15-1-1 Applicability

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11; IC 13-17-3-12

Affected: IC 13-15; IC 13-17

Sec. 1. This rule applies to stationary sources listed in section 2 of this rule. (*Air Pollution Control Board; 326 IAC 15-1-1; filed Mar 10, 1988, 1:20 p.m.: 11 IR 2564; filed Jun 14, 1989, 5:00 p.m.: 12 IR 1850; filed Apr 22, 1997, 2:00 p.m.: 20 IR 2372; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477; filed Dec 20, 2001, 4:30 p.m.: 25 IR 1604*)

326 IAC 15-1-2 Source-specific provisions

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

Affected: IC 13-17

Sec. 2. (a) The sources listed below shall comply with the following emission and operating provisions:

Source	Facility Description	Emission Limitation
		lbs./hr.
(1) Refined Metals of Indianapolis	M-1 baghouse stack ¹	0.91
	M-2 baghouse stack ¹	0.15
	M-3 baghouse stack ¹	0.15
	M-4 baghouse stack ¹	0.30

¹Compliance shall be achieved on or before April 30, 1992.

(A) On or before June 1, 1987, Refined Metals of Indianapolis shall install and operate hooding systems for the blast furnace skip hoist and charging area, the blast furnace slag and lead tapping area, the casting area, the refining kettles, and the lead dust furnace charging area.

(B) The hooding systems required for the operations listed in clause (A) shall vent the emissions through a control device to one (1) of the four (4) stacks, M-1 through M-4.

(C) On or before June 1, 1987, Refined Metals of Indianapolis shall also install and operate enclosed screw conveyors to transport lead flue dusts to the lead dust furnace. There shall be no visible emissions from the screw conveyors. Compliance shall be determined by 40 CFR 60, Appendix A, Method 22**.

(D) The buildings housing the blast furnace, dust furnace, and materials storage shall be kept under continuous negative pressure by constant flow rate fans ducted to control devices.

(E) The company shall install and operate a continuous monitoring system to measure and record pressure differential to ensure that the materials storage building and the blast/dust furnace area are maintained under negative pressure while the plant is in operation. The monitoring system shall be located on the north wall of the materials storage building. It shall consist of a differential pressure sensor/transmitter, a processor, and a recording device. This system shall produce valid data ninety-five percent (95%) of the time when the plant is operating. Data generated by this monitoring system shall be kept available for inspection at the site for a period of two (2) years.

(F) The blast furnace and the dust furnace fugitive emissions shall be drawn from the enclosure by a constant flow rate fan to a control device. The control device shall vent to the atmosphere through the M-4 baghouse stack which shall be at least eighty (80) feet in height from ground level.

(G) Visible emissions from the M-1, M-2, M-3, and M-4 baghouse stacks shall not exceed a six (6) minute average of five percent (5%) opacity for each stack as determined in accordance with 40 CFR 60, Appendix A, Method 9**.

(H) Visible emissions from building openings such as doors and windows shall not exceed a three (3) minute average of three percent (3%) opacity. Compliance with this limitation shall be determined by 40 CFR 60, Appendix A, Method 9**, except that the opacity standard shall be determined as an average of twelve (12) consecutive observations recorded at fifteen (15) second intervals.

(I) Refined Metals of Indianapolis shall install and operate continuous opacity monitoring systems in the M-1 and the M-4 baghouse stacks or in the ductwork leading to those stacks. COMS data shall be used to determine compliance with

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the five percent (5%) opacity limit required by clause (G). The COMS shall meet the performance and installation requirements of 40 CFR 60, Appendix B, Performance Specification 1**. The company shall also comply with the following:

(i) A complete written standard operating procedure (SOP) for COMS shall be submitted to the department for approval. The department shall complete the review of the COMS SOP within sixty (60) days of submittal. The COMS SOP shall contain, at minimum, complete step-by-step procedures for the following:

(AA) Calibration procedures.

(BB) Operation procedures.

(CC) Preventive maintenance procedures.

(DD) Quality control and quality assurance (QA) procedures.

(EE) Record keeping and reporting procedures.

(ii) The company shall perform quarterly COMS performance audits and notify the department fourteen (14) days in advance of each audit. The company shall submit quarterly COMS QA reports to the department within thirty (30) days following the end of the quarter. Each report shall summarize performance audit results and provide an explanation for periods of time during the quarter when valid data was not collected.

(iii) COMS excess emission reports shall be submitted to the department within thirty (30) days following the end of each calendar quarter. These reports shall contain, at minimum, the following:

(AA) The operating time of the monitored facilities.

(BB) The date and time each COMS recorded opacity measurements above the five percent (5%) opacity limit.

(CC) The date and time each COMS was inoperative or malfunctioning.

(DD) A description of the nature and cause of any excess emissions.

(J) Refined Metals of Indianapolis shall achieve compliance with clauses (D) through (I) by March 1, 1994. In the event that the plant is idle on March 1, 1994, compliance with clauses (D) through (I) shall be achieved by the date the plant resumes production. Refined Metals shall notify the department thirty (30) days before production resumes to enable the department to make a compliance determination.

(K) Refined Metals of Indianapolis shall perform a stack test on the M-1, M-2, M-3, and M-4 baghouse stacks and demonstrate compliance with this subdivision by June 30, 1992. All subsequent stack tests shall be conducted utilizing the methodologies of 40 CFR 60, Appendix A, Methods 1, 2, 3, 4, 5, and 12**.

(L) Any violation of the National Ambient Air Quality Standards (NAAQS) shall result in an investigation by Refined Metals to determine the cause of the violation. Such an investigation shall be completed within ninety (90) days after the date the violation is confirmed. Refined Metals shall provide a corrective action plan to the department for approval within ninety (90) days of the confirmation of the violation. The plan shall specify the actions required to continuously meet the NAAQS. Refined Metals shall implement the plan upon approval by the department. The department may require a cessation in production, if needed, to assure continuous attainment of the NAAQS.

(2)	Chrysler Corporation Foundry,	Cupola stack	0.550
	Indianapolis	Cupola fugitive	1.894
(3)	Delco Remy Division of General Motors Corporation, Muncie	Lead oxide mfg. stack (each of 5)	0.068
		Oxide grinder stack (each of 2)	0.123
		*Central tunnel system stack (each of 4)	0.254
		Reverberatory furnace stack	0.225
		O.S.I. drying oven stack (each of 4)	0.0015
		Electric melting pot stack	0.159

*On or before June 1, 1987, Delco Remy shall install ductwork to vent emissions from the vacuum cleaning lines through the control devices and stacks serving the Central Tunnel System.

(4)	Indiana Oxide Corporation, Brazil	Barton #1 reactor	0.215
		Barton #2 reactor	0.215
		Barton #3 reactor	0.215

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	Barton #4 reactor	0.215
	Rake furnace	0.006
	Kiln #2	0.002
	*Franklin reactor	0.603
	*Shall not operate more than 670 hours per quarter.	
(5)	U.S.S. Lead Refinery, East Chicago	
	*Blast furnace stack	0.002
	*Blast furnace fugitive	
	Charging	2.922
	Lead tapping	0.002
	Slag tapping	0.005
	*Refining kettles fugitive	0.0001
	*Casting fugitive	0.393
	*Reverberatory furnace fugitive	0.345
	*Shall not operate more than 334 hours per quarter.	
(6)	Hammond Lead Products, Inc., HLP-Lead Plant	
	Stack 4A-S-8	0.053
	Stack 14-S-16	0.053
	Stack 1-S-2	0.053
	Stack 1-S-26	0.053
	Stack 16-S-56	0.200
	Stack 1-S-52	0.070
	Stack 1-S-27	0.020
	Stack 4-S-35	0.090
	Stack 6-S-33	0.070
	Stack 4B-S-34	0.080
	Stack 6-S-47	0.021
	Stack V-1	0.090
	Stack V-11	0.006

(A) The ventilator control system (Stack V-1) shall consist of a fan with a constant flow rate that draws air from the building through a HEPA filter which vents to the atmosphere through a stack. The HEPA filters shall be maintained and operated in order to achieve maximum control efficiency. In addition to the requirements contained in subsection (c), Hammond Lead Products, Inc. shall submit an operation and maintenance plan by July 31, 1990, which incorporates good housekeeping practices for the ventilator control systems. This operation and maintenance plan shall be incorporated into the operating permits for Hammond Lead Products, Inc. and submitted to U.S. EPA as a revision to Indiana's lead state implementation plan by December 31, 1990. The ventilator control systems shall be designed such that process fugitive emissions will not routinely escape the buildings except as vented through the ventilator control systems. The compliance test method specified in section 4(a) of this rule shall be used to determine compliance with the emission limitations for the ventilator control system stacks.

(B) By December 31, 1989, the stack heights for all processes except Stack 16-S-56, Stack 1-S-52, and the ventilator control systems shall be no less than sixty (60) feet above grade; the stack heights for Stack 16-S-56 and Stack 1-S-52 shall be no less than eighty-two (82) feet above grade; and the stack height for Vent 11 shall be no less than thirty-five (35) feet above grade. By July 31, 1990, the stack heights for the other ventilator control systems shall be no less than sixty (60) feet above grade.

(C) Hammond Lead Products, Inc. shall install HEPA filters according to the following schedule:

Stack 4A-S-8	March 31, 1992
Stack 14-S-16	June 30, 1992
Stack 1-S-2	December 31, 1991

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Stack 1-S-26	September 30, 1992
*Stack 16-S-56:	
130 bag filter	November 20, 1989
100 bag filter	December 6, 1989
80 bag filter	June 1, 1989
72 bag filter	December 31, 1991
Stack 1-S-52	December 31, 1989
Stack 1-S-27	August 15, 1987
Stack 4-S-35	October 16, 1989
Stack 6-S-33	July 22, 1988
Stack 4B-S-34	October 5, 1989
Stack 6-S-47	May 26, 1988

*Four (4) bag filters are vented through common Stack 16-S-56.

(D) Hammond Lead Products, Inc. shall provide written notification to the commissioner within three (3) days after the installation of HEPA filters is completed at each of the sites listed in clause (A).

(E) All emissions limitations in this subdivision shall be met by December 31, 1992.

(F) This subdivision shall be submitted to the U.S. EPA as a revision to the Indiana state implementation plan.

(7) Hammond Group-Halstab Division	Stack S-1	0.04
	Stack S-2	0.03
	Stacks S-4, S-5 (each)	0.07
	Stacks S-6, S-7, S-8 (each)	0.05
	Stacks S-9, S-10, S-11 (each)	0.04
	S-12, S-13 (each)	0.04
	S-14, S-15, S-16 (each)	0.04
	Stacks S-17, S-21 (each)	0.07

(A) Hammond Group-Halstab Division shall install and maintain one (1) baghouse with laminated filters followed by one (1) HEPA filter in series with the baghouse on each of stacks S-1, S-2, S-4 through S-17, and S-21.

(B) Hammond Group-Halstab Division shall submit a proposed ambient monitoring and quality assurance plan within thirty (30) days of the effective date of this rule.

(C) Hammond Group-Halstab Division shall commence ambient monitoring within thirty (30) days of the department's approval of the proposed ambient monitoring and quality assurance plan.

(D) Hammond Group-Halstab Division shall conduct a minimum of twenty-four (24) months of monitoring for lead. The monitoring shall be:

- (i) performed using U.S. EPA-approved methods, procedures, and quality assurance programs; and
- (ii) in accordance with the ambient monitoring and quality assurance plan as approved by the department.

(E) The requirement to monitor shall expire twenty-four (24) months from the commencement date of the monitoring provided the monitored values, averaged over a calendar quarter, do not exceed eighty percent (80%) of the National Ambient Air Quality Standards (NAAQS) level for lead in any quarter during twenty-four (24) months.

(F) If the monitored values averaged over a calendar quarter exceed eighty percent (80%) of the NAAQS level for lead during the twenty-four (24) month period, monitoring shall be continued until eight (8) continuous quarters of monitored values do not exceed eighty percent (80%) of the NAAQS level for lead.

(G) If the monitored values, averaged over a calendar quarter, exceed eighty percent (80%) of the NAAQS level for lead for two (2) or more continuous quarters, the department and Hammond Group-Halstab Division shall analyze and assess causes of the emissions and determine whether changes to control requirements or operating practices are appropriate.

(b) In addition to the sources listed in subsection (a), the following sources shall comply with subsection (c) and section 3 of this rule:

- (1) Exide Corporation, Logansport.
- (2) C & D Batteries, Attica.
- (3) Exide Corporation, Frankfort.

(c) Operation and maintenance programs shall be designed to prevent deterioration of control equipment performance. For sources listed in subsection (a)(1) through (a)(7), these programs shall be submitted to the department of environmental management, office of air management, on or before June 1, 1987. For sources listed in subsection (b), these programs shall be submitted to the office of air management on or before February 1, 1988. These programs will be incorporated into the individual source operation permits.

***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 Board; 326 IAC 15-1-2; filed Mar 10, 1988, 1:20 p.m.: 11 IR 2564; errata filed Jul 6, 1988, 1:00 p.m.: 11 IR 3921; filed Jun 14, 1989, 5:00 p.m.: 12 IR 1850; filed Aug 8, 1991, 10:00 a.m.: 14 IR 2203; filed Dec 17, 1992, 5:00 p.m.: 16 IR 1379; errata filed Mar 10, 1993, 5:00 p.m.: 16 IR 1832; filed Mar 28, 1994, 5:00 p.m.: 17 IR 1878; errata, 17 IR 2080; filed May 31, 1994, 5:00 p.m.: 17 IR 2233; errata filed Jun 10, 1994, 5:00 p.m.: 17 IR 2356; filed Jan 6, 1999, 4:23 p.m.: 22 IR 1427; filed Dec 1, 2000, 2:22 p.m.: 24 IR 954; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477; errata filed Dec 12, 2002, 3:30 p.m.: 26 IR 1565; filed Aug 26, 2004, 11:30 a.m.: 28 IR 95)*

326 IAC 15-1-3 Control of fugitive lead dust

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

Affected: IC 13-11; IC 13-17

Sec. 3. All sources listed in section 2 of this rule shall comply with the following requirements:

- (1) No source shall create or maintain outdoor storage of bulk materials containing more than one percent (1.0%) lead by weight of less than two hundred (200) mesh size particles.
- (2) All materials containing more than one percent (1.0%) lead by weight of less than two hundred (200) mesh size particles shall be transported in closed containers or shall be transported by enclosed conveying systems that are vented to the atmosphere through particulate matter control equipment or shall be transported wet.
- (3) Control programs shall be designed to minimize emissions of lead from all nonprocess fugitive emission points. The programs shall include good housekeeping practices for the cleanup of spills and for minimizing emissions from loading and unloading areas as applicable. For sources listed in section 2(a) of this rule, these programs shall be submitted to the department of environmental management, office of air management, on or before June 1, 1987. For sources listed in section 2(b) of this rule, these programs shall be submitted to the department of environmental management, office of air management, on or before February 1, 1988. These programs will be incorporated into the individual source operation permits.

(Air Pollution Control Board; 326 IAC 15-1-3; filed Mar 10, 1988, 1:20 p.m.: 11 IR 2566; errata filed Jul 6, 1988, 1:00 p.m.: 11 IR 3921; filed Jun 14, 1989, 5:00 p.m.: 12 IR 1853; filed Dec 1, 2000, 2:22 p.m.: 24 IR 958; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477)

326 IAC 15-1-4 Compliance

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

Affected: IC 13-17

Sec. 4. (a) Determination of compliance with the lead emission limitations established pursuant to section 2 of this rule shall be made in accordance with the procedures outlined in 40 CFR 60, Appendix A, Method 12,* and 326 IAC 3-2 [326 IAC 3-2 was repealed filed Aug 2, 1990, 4:50 p.m.: 14 IR 81.], Source Sampling Procedures.

(b) Those sources having restricted operating hours specified in section 2 of this rule shall be as follows:

- (1) Maintain logs indicating hours of operation each day.
- (2) Submit quarterly summaries of operating logs to the department of environmental management, office of air management, before the end of the month following the completed quarter.

*This document is incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North

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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 Board; 326 IAC 15-1-4; filed Mar 10, 1988, 1:20 p.m.: 11 IR 2567; filed Jun 14, 1989, 5:00 p.m.: 12 IR 1854; readopted filed Jan 10, 2001, 3:20 p.m.: 24 IR 1477; errata filed Dec 12, 2002, 3:35 p.m.: 26 IR 1571; filed Aug 26, 2004, 11:30 a.m.: 28 IR 98*)

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