TITLE 329 SOLID WASTE MANAGEMENT BOARD

RULE AS PROPOSED FOR FINAL ADOPTION
LSA Document #07-552

DIGEST

Adds 329 IAC 3.1-6-8 to conditionally exclude from regulation under 329 IAC 3.1 (delist) wastewater treatment sludge from the chemical conversion coating of aluminum, hazardous waste code F019, that is generated by Alcoa Corporation Warrick Operation near Newburgh, Indiana. Effective 30 days after filing with the Publisher.

HISTORY

Findings and Determination of the Commissioner Pursuant to IC 13-14-9-7 and Second Notice of Comment Period: September 12, 2007, Indiana Register (DIN: 20070912-IR-329070552FDA).

Notice of First Hearing: September 12, 2007, Indiana Register (DIN: 20070912-IR-329070552PHA).

Date of First Hearing: November 20, 2007.

Proposed Rule: December 19, 2007, Indiana Register (DIN: 20071219-IR-329070552PRA).

329 IAC 3.1-6-8

SECTION 1. 329 IAC 3.1-6-8 IS ADDED TO READ AS FOLLOWS:

329 IAC 3.1-6-8 Waste excluded from regulation; Alcoa Corporation, Warrick Operations, Newburgh, Indiana

Authority: IC 13-14-8; IC 13-14-9-7; IC 13-22-2

Affected: IC 13-22

Sec. 8. Wastewater treatment sludge, hazardous waste code F019, that is generated by Alcoa Corporation (Alcoa) at the Warrick Operations, Newburgh, Indiana is excluded from regulation under this article so long as management of the waste complies with all of the following conditions:

(1) No concentration of a constituent listed in Table 1 may exceed the delisting level for that constituent listed in Table 1. The delisting levels listed in Table 1 are the maximum concentration of that constituent measured in the extract of the wastewater treatment sludge using the extraction methods described in subdivision (2).

Table 1. Maximum Delisting Levels for Inorganic and Organic Constituents

Constituent	Chemical Abstract Service Registry Number	Delisting Level
Antimony	7440-36-0	0.390 mg/L[1]
Arsenic	7440-38-2	0.360 mg/L[1]
Barium	7440-39-3	100 mg/L[1, 3]
Beryllium	7440-41-7	0.790 mg/L[1]
Cadmium	7440-43-9	0.280 mg/L[1]
Chromium (trivalent)	7440-47-3	5.0 mg/L[1, 3]
Chromium (hexavalent)	18540-29-9	3,800 mg/kg[2]
Copper	7440-50-8	17,000 mg/L[1]
Cobalt	7440-48-4	42.5 mg/L[1]
Lead	7439-92-1	5.0 mg/L[1, 3]
Mercury	7439-97-6	0.150 mg/L[1]
Nickel	7440-02-0	53.3 mg/L[1]
Selenium	7782-49-2	1 mg/L[1, 3]
Silver	7440-22-4	5 mg/L[1, 3]
Thallium	7440-28-0	0.16 mg/L[1]
Tin	7440-31-5	430 mg/L[1]
Vanadium	7440-62-2	40 mg/L[1]
Zinc	7440-66-6	530 mg/L[1]

[1] mg/L means milligrams per liter.
[2] mg/kg means milligrams per kilogram.
[3] The delisting level for this constituent was higher than the toxicity characteristic regulatory level in 40 CFR 261.24; therefore, the toxicity characteristic regulatory level applies.

(2) Except as provided in clauses (C) through (F), Alcoa shall obtain two (2) duplicate representative samples of the delisted waste each quarter and analyze them for the constituents listed in Table 1 as follows:

(A) Constituents must be extracted using the following:

(i) Method 1311, Toxicity Characteristic Leaching Procedure (TCLP)*.

(ii) Method 1330A, Oily Waste Extraction Procedure*, if oil and grease levels exceed ten thousand (10,000) milligrams per kilogram.

(iii) Method 3060A, Alkaline Digestion for Hexavalent Chromium*.

(B) Constituents must be analyzed using the following:

(i) Method 6010B, Inductively Coupled Plasma-Atomic Emission Spectrometry* or Method 6020, Inductively Coupled Plasma-Mass Spectrometry*.

(ii) Method 7470A, Mercury in Liquid Waste (Manual Cold-Vapor Technique)*.

(iii) Method 7196A, Hexavalent Chromium (Colorimetric)*.

(C) For constituents other than hexavalent chromium, if the relative percent difference between the two (2) samples is forty percent (40%) or less for the first four (4) quarters, then Alcoa may obtain and analyze one (1) representative sample of the delisted waste each following quarter. The relative percent difference (RPD) is calculated for each constituent and equals one hundred (100) times the absolute value of the difference between the results divided by the average of the results, as follows:

$$RPD = 100\ [(|x1 - x2|) / \{(x1 + x2) / 2\}]$$

where x1 equals sample results and x2 equals duplicate results.

(D) If the level of hexavalent chromium in the sample or duplicate sample is less or equal to ten and zero-tenths (10.0) milligrams per kilogram during the first four (4) quarters, then Alcoa may obtain and analyze one (1) representative sample of the delisted waste for hexavalent chromium each following quarter.

(E) If the level of hexavalent chromium in the sample or duplicate sample is greater than ten and zero-tenths (10.0) milligrams per kilogram, then Alcoa must calculate the relative percent difference as described in clause (C). If the relative percent difference between the two (2) samples is forty percent (40%) or less during the first four (4) quarters, then Alcoa may obtain and analyze one (1) representative sample of the delisted waste for hexavalent chromium each following quarter.

(F) If duplicate results for any constituent exceed forty percent (40%) relative percent difference, Alcoa must continue to analyze duplicate samples for that constituent for an additional two (2) quarters beyond the initial four (4) quarters. If the results still exceed forty percent (40%) relative percent difference after the additional two (2) quarters, Alcoa must continue to analyze duplicate samples for that constituent until authorized by the department to analyze one (1) sample each quarter.

(G) If any sample result shows any constituent listed in Table 1 at or above fifty percent (50%) of the delisting level for that constituent, then Alcoa must analyze two (2) duplicate samples each quarter until authorized by the department to analyze one (1) sample each quarter.

(H) Nothing in this section prohibits Alcoa from requesting at any time that the solid waste management board modify this section to allow less frequent verification testing.

(3) If waste testing or other information available to Alcoa shows that any constituent in Table 1 has exceeded the delisting level for that constituent, or Alcoa makes changes in the Warrick Operations that cause hazardous constituents listed in Table 1 to exceed the delisting level for that constituent, Alcoa must do all of the following:

(A) Notify the department in writing within ten (10) days of first possessing or being made aware of such data.

(B) Demonstrate that the waste continues to meet all delisting levels in Table 1.

(C) Manage the waste as hazardous waste until Alcoa receives written approval from the commissioner to resume managing the waste under this exclusion.

(4) Alcoa must submit an annual report that summarizes the data obtained through quarterly

verification testing required by subdivision (2) to the department by February 1 of the following year. The report must include the results of each required analysis for the previous calendar year.

(5) Alcoa must compile, summarize, and maintain records of operating conditions and analytical data. The records must be:

(A) maintained for a minimum of five (5) years; and

(B) made available for inspection by the department during normal working hours.

(6) All data required by this section must be accompanied by a signed copy of the certification statement in 40 CFR 260.22(i)(12).

(7) The delisted waste must be disposed of in a:

(A) municipal solid waste landfill permitted under 329 IAC 10; or

(B) hazardous waste disposal facility permitted under this article.

(8) If, at any time after disposal of the delisted waste, Alcoa possesses or is otherwise made aware of any data, including, but not limited to, leachate data or ground water monitoring data, or any other data relevant to the delisted waste indicating that any constituent identified in Table 1 is at a level in the leachate that is higher than the specified delisting level, then Alcoa must report such data in writing to the department within ten (10) days of first possessing or being made aware of that data.

(9) No more than five thousand two hundred fifty (5,250) short tons of delisted waste may be disposed of in any calendar year under this exclusion.

***Test methods referenced in this rule are found in U.S. Environmental Protection Agency Publication SW-846, "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", Third Edition, available from the Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, Pennsylvania 15250-7954, (202) 783-3238.**

(Solid Waste Management Board; 329 IAC 3.1-6-8)

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