



State of Ohio Environmental Protection Agency

STREET ADDRESS:

Lazarus Government Center
122 South Front Street
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-3184
www.epa.state.oh.us

MAILING ADDRESS:

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

MEMORANDUM

TO: Solid Waste Landfill Owners/Operators
FROM: Dan Harris, Chief, Division of Solid and Infectious Waste Management
SUBJECT: ALUMINUM PRODUCTION WASTES ADVISORY
DATE: November 7, 2006

In the past several months, staff from the Ohio Environmental Protection Agency (Ohio EPA), Division of Solid and Infectious Waste Management (DSIWM) have become aware of operational problems occurring at an Ohio landfill disposing of wastes from aluminum production facilities. Aluminum production wastes include dross and salt cake generated from secondary aluminum smelting operations. A general description of the aluminum production industry can be found beginning on page 15 of the *USEPA Office of Compliance Sector Notebook Project Profile of the Nonferrous Metals Industry* at:

<http://www.epa.gov/compliance/resources/publications/assistance/sectors/notebooks/nfmetltn.pdf>.

These wastes are chemically active and when exposed to water, can react and emit toxic, flammable, and potentially explosive gases including fluorides, ammonia, methane, hydrogen, cyanide, sulfur oxides, and acetylene. These reactions are capable of generating heat at temperatures between 200°F and 300°F. Due to the considerably high temperatures these wastes may generate upon contact with liquids an operator should carefully assess and minimize co-disposal with moist or wet wastes and exposure to leachate (including the practice of leachate recirculation).

At this time, DSIWM advises landfill operators who accept aluminum production wastes to manage these wastes in a manner which minimizes the potential exothermic reaction. Landfill operators are also advised to discontinue leachate recirculation in areas where such wastes have been historically disposed.

An Ohio landfill operator has experienced operational problems including significant odors, high internal landfill gas pressures, high internal landfill temperatures, and unusual subsidence attributed to reactions occurring in the landfill caused by the disposal of aluminum production wastes. In this situation, Ohio EPA declared this landfill a public nuisance and ordered the owner and operator to correct the problem as soon as possible.

Please contact the appropriate Ohio EPA District Office solid waste inspector or Annette De Havilland at (614)-728-5373, if you have any questions.

DH/clk

Bob Taft, Governor
Bruce Johnson, Lieutenant Governor
Joseph P. Koncelik, Director



Printed on Recycled Paper

Ohio EPA is an Equal Opportunity Employer