

PPC 9487.1986(08)

RESIDUES FROM MUNICIPAL WASTE
RESOURCE RECOVERY FACILITIES

OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE

5/27/86

Honorable Patrick J. Leahy
Ranking Minority Member
HUD-Independent Agencies
Appropriations Subcommittee
Committee on Appropriations
United States Senate
Washington, D.C. 20510

Dear Senator Leahy:

Thank you for your letter of May 7, 1986, regarding an inquiry from your constituents in Bristol, Vermont. You requested information regarding residues from municipal waste resource recovery facilities and any federal laws that apply to the disposal of these residues.

Solid residues from municipal waste combustion (MWC) processes consist of fly ash and scrubber sludge recovered from air pollution control equipment, and bottom ash. Disposal of these residues is accomplished by landfilling. Fly ash as well as other residues from MWC processes sometimes exhibit the characteristics of hazardous waste and, therefore, are regulated under the applicable disposal standards in 40 CFR Parts 260 through 265. Other than those occasions when the wastes meet the definition of hazardous waste, the Federal regulations that apply to the landfilling of any nonhazardous solid wastes, including most residues from MWC processes, are the "Criteria for Classification of Solid Waste Disposal Facilities and Practices" (40 CFR Part 257), which were promulgated on September 13, 1979, under authority of the Resource Conservation and Recovery Act (RCRA). The Criteria include general performance standards that are used to determine which solid waste disposal facilities and practices pose a reasonable probability of having no adverse effects on human health and the environment. A copy of these standards is enclosed for your information.

The 1984 Hazardous and Solid Waste Amendments (HSWA) to RCRA require the Environmental Protection Agency (EPA) to complete several new efforts with regard to solid waste disposal. By November 8, 1987, EPA must complete a study and report to Congress on nonhazardous waste land disposal facilities and practices to determine whether the current Federal Criteria

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are adequate to protect human health and the environment. In addition, by March 31, 1988, EPA must revise the current Criteria (40 CFR Part 257) for disposal facilities, including municipal waste landfills, that receive household hazardous waste and small quantity generator hazardous waste. HSWA also requires the Agency to develop a report to Congress and guidelines on dioxin emissions from municipal waste incinerators or resource recovery facilities.

In response to these HSWA mandates, we have recently initiated several projects in an effort to address problems pertinent to your inquiry. EPA is currently developing a technical information document for use by State and local governments in evaluating municipal waste combustion projects. We anticipate that this document will be available in February 1987. The EPA contact for this effort is Stephen Greene, (202) 382-4608.

We are also currently engaged in a comprehensive study to determine the characteristics of ash from MWC processes and to assess the potential health and environmental impacts from the disposal of these residues. The results of this study will be incorporated into the February 1987 information document mentioned above. The Agency contact for this ash study is Gerri Dorian, (202) 382-4688.

Your letter presented several questions regarding this matter. I have specifically addressed each of them below.

1. Has EPA tested the wastes from municipal waste resource recovery facilities to determine the characteristics of such wastes? If so, what did those tests find? Have such wastes ever been characterized as hazardous?

Various agencies, domestic and foreign, have performed a range of analyses on these residues. A list of technical papers available to the public is enclosed for your information. EPA will not complete its full evaluation of this until February 1987. However, it is known that ash residues (predominantly fly ash) sometimes exhibit the characteristic of EP toxicity as determined using the RCRA Extraction Procedures (EP) for toxicity (40 CFR Parts 260.20 and 260.21), because of the presence of certain metals, such as lead and cadmium. If a waste is characterized as EP Toxic, it is a RCRA hazardous waste. Additionally, recent testing of fly ash and flue gas from municipal waste combustion processes has, in some cases, demonstrated the presence of polychlorinated dibenzo-p-dioxins, polychlorinated dibenzofurans and polychlorinated biphenyls in both media in relatively small concentrations. EPA has not determined whether the presence of these organic constituents pose a hazard when landfilled.

2. Do EPA's tests for toxicity of the waste include a full range of organic chemicals?

The EP toxicity test (40 CFR Part 261.24) addresses eight inorganics and only six organic constituents. These organics include: Endrin, Lindane, Methoxychlor, Toxaphene, 2,4-D, and Silvex. EPA is currently developing a new toxicity characteristic and associated leaching procedure (TCLP) that will result in the evaluation of a broader range of organics. For further information on the TCLP, your constituents should contact Todd Kimmel at (202) 382-4795.

3. If the waste were determined to be a hazardous waste, what requirements would apply to a landfill in which the waste is disposed?

Owners and operators of hazardous waste landfills must comply with all applicable requirements in CFR Parts 260 through 265.

You should be aware that certain States have more stringent or specific standards for the disposal of MWC ash, whether or not the ash is classified as a RCRA hazardous waste. The State of Vermont has proposed regulations that address the disposal of MWC ash. For further information on the State of Vermont regulations (existing and proposed), your constituents should contact:

Mr. John Malter, Director
Waste Management Division
Agency of Environmental Conservation
State Office Building
Montpelier, Vermont 05602
(802) 828-3395

4. Under the Clean Air Act, are there any authorities for controlling the blowing dust particles that may result from the disposal of these wastes?

Under the Clean Air Act, the Agency has a general authority to investigate and regulate emissions, including particulate emissions, from various sources that may pose a threat to human health or the environment. The Agency also has authority under RCRA to control dust. For your general information, the State of Delaware has experienced some dust control concerns regarding municipal waste combustor residues. For more detailed information on the approach Delaware has used, your constituents may wish to contact:

Mr. William Razor, Supervisor
Solid Waste Management Branch
Department of Natural Resources
and Environmental Control
P.O. Box 1401
Dover, Delaware 19901
(302) 736-4781

5. Under the Clean Water Act or any other water-related federal statutes, are there any authorities for controlling leaking ground water from a landfill in which such waste is deposited?

The Clean Water Act does provide EPA some authority for ensuring ground-water protection, but these authorities are less specific to this purpose than those delegated under RCRA. EPA's primary authority for ground-water protection at active landfills is derived from RCRA. For more detailed information regarding these Federal authorities, your constituents should contact our Office of General Counsel, either Dov Weitman at (202) 382-7703 or Ken Gray at (202) 382-7706.

I hope this information is useful to you and your constituents. Should you have any further questions, please do not hesitate to contact us again.

Sincerely,

J. Winston Porter
Assistant Administrator

Enclosures

cc: Mr. John Malter
Mr. William Razor