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MUNICIPAL INCINERATOR ASH REGULATED AS A HAZARDOUS WASTE UNDER RCRA:
COSTS AND OPTIONS
City of Chicago v. Environmental Defense Fund

by Jackie Hamra

I. INTRODUCTION

As the United States' population increases, society must evolve to compensate for diminishing land space. Population growth also means an increase in disposable waste which is being allocated to a shrinking number of landfills. American households throw away approximately 160 million tons of municipal solid waste (MSW) every year. Of the 14,000 landfills in operation in 1978, seventy percent had closed by 1989. Those remaining open are reaching their growth capacity quickly or cannot operate because of new resource protection requirements.

The use of incinerators, which convert waste to energy, has grown over the last fifteen years. Waste-to-energy facilities decrease the need for landfills and create a new source of energy. Incineration of municipal solid waste can reduce the amount of waste in America by seventy to ninety percent. However, concern grew when it was discovered that incineration generates trace concentrations of dioxins and releases the dioxins in the stack emissions. One of the most serious problems with incineration is the disposal of the ash residue left after the incineration process, especially if the ash has toxic qualities. Approximately eighty-five to ninety percent of this incinerator ash is disposed of in landfills.

Recently the Supreme Court held that the incineration ash from municipal solid waste is subject to strict regulation as a hazardous waste. This note will discuss the policy before ash was classified as a solid waste, review the recent Supreme Court decision, and explore the consequences of establishing rigorous regulations on waste-to-energy facilities.

II. FACTS AND HOLDING

Environmental Defense Fund (EDF) and Citizens for a Better Environment sued the City of Chicago and its Mayor (collectively, "City"), claiming that they were violating the Resource Conservation and Recovery Act of 1976 (RCRA) and regulations of the Environmental Protection Agency (EPA). The City owns and operates a facility known as the Chicago Northwest Incinerator. The Northwest facility receives approximately 200 to 250 truckloads of refuse each weekday and processes some 350,000 tons of solid municipal waste annually. The City claimed that at least ninety-nine percent of the refuse received at the facility consisted of household waste. The remainder of the waste consists of commercial waste which the City contends does not contain hazardous materials.

Once the facility receives the waste, it is inspected for hazardous materials. Then the waste is processed through the facility and reduced to an ash residue. The ash residue left after incineration is the subject of controversy. EDF alleged that the ash was a hazardous waste and should be regulated as a hazardous waste. The City of Chicago was using landfills to dispose of the ash which were not licensed to accept hazardous wastes.

3 Id. at 3.
4 W. Paul Robinson, Waste Reduction, Solid Waste, and Public Policy. 21 N.M. L. Rev. 1 (1990). The EPA found that 90% of MSW landfills surveyed nationwide showed evidence of groundwater contamination. Additionally, forty percent showed evidence of surface water contamination, resulting in landfill contamination on the Superfund National Priority List. Id. (citing 53 Fed. Reg. 33,319 (1988)).
6 Bradley K. Groff, Burned-If-We-Don't, Burned-If-We-Don't: Treatment of Municipal Solid Waste Incinerator Ash Under RCRA's Household Waste Exclusion, 27 GA. L. Rev. 555 (1993). A survey of waste facility operators covered that 55.6% of incineration facilities dispose of ash in municipal solid waste landfills (landfills containing ash and municipal solid waste in its raw state). 17.1% are disposed of in off-site ash monofills (landfills containing only ash), and 12.8% in on-site ash monofills. Id. at 556 n.10.
7 Spear, Solid Waste Management - A Short History, C355 ALI-ABA 175 (September 29, 1988).
8 Id. at 89.
9 Groff, supra note 6, at 556.
11 Id. at 1589 (1994).
13 Id.
14 Id.
15 Id.
16 Id.
17 Id.
18 Id.
19 Plaintiffs allege that out of 32 samples of ash taken from the Northwest Facility 29 of those samples have exhibited levels of lead and/or cadmium that exceed the acceptable levels, qualifying it as hazardous. Id. at 420, 421 n.2.
wastes. The City argued that the ash remaining after incineration is from nonhazardous waste generation and therefore not subject to hazardous waste regulation.

The parties filed cross motions for summary judgment. The United States District Court for the Northern District of Illinois issued a memorandum finding the City of Chicago had violated RCRA Subtitle C requirements addressing hazardous wastes. However, the court concluded that toxic residue ash and nonhazardous commercial waste is exempt from regulation under the household waste exclusion if the resource recovery facility satisfies the criteria of § 3001(i) of the Solid Waste Disposal Act.

The district court denied both motions and ordered further discovery to determine if the City was in compliance with § 3001(i).

EDF conceded that the City was in compliance with the statute and the City renewed its motion for summary judgment, which was granted on August 20, 1990.

The Court of Appeals reversed the decision.

The Seventh Circuit examined the legislative history of section 3000(i) and then choose not to rely on it, basing its opinion on the plain language of the statute. The Seventh Circuit explained that because of the statute's varying interpretations, foggy legislative history, and an indecisive administrative agency, plain language was the best indication of legislative intent. The Court of Appeals held that incinerator ash exhibiting hazardous characteristics is subject to RCRA hazardous waste regulation.

The United States Supreme Court then vacated the judgment, remanding the case for further consideration in light of a new EPA memo reinterpreting the household waste exclusion to cover incinerator ash.

On remand, the Court of Appeals reinstated its previous position, holding that the EPA's memorandum did not affect its analysis because the statute contained such clear language.

The United States Supreme Court granted petitioners' writ of certiorari and affirmed the Court of Appeals decision on May 2, 1994. The Supreme Court held that ash generated by a resource recovery facility's incinerator was subject to regulation as a hazardous waste set forth in Subtitle C of RCRA.

III. LEGAL BACKGROUND

A. Legislative History

In order to manage and minimize the enormous accumulation of waste in the nation, Congress enacted the Resource Conservation and Recovery Act of 1976 ("RCRA"). Specifically, RCRA's stated objective is "to promote the protection of health and the environment." RCRA emphasizes that in order to fulfill this goal the generation of hazardous waste should be reduced or eliminated as quickly as possible. Furthermore, wastes should be treated, stored, or disposed of so as to minimize the future threat to human health and the environment.

To facilitate safe waste disposal, Con-
Toxic Incinerator Ash Regulated as a Hazardous Waste Under RCRA

gress developed bifurcated classifications of waste with different regulations. Under RCRA's standard, solid wastes are either hazardous solid wastes governed by Subtitle C of RCRA, or nonhazardous solid wastes regulated under the less stringent standards of Subtitle D. Solid waste incinerators must identify which wastes are hazardous and ensure that they treat those wastes appropriately. To comply with RCRA's requirements, generators must: fulfill recordkeeping requirements; label and package wastes according to EPA specifications; and designate an authorized treatment, storage and disposal facility to handle the waste.

The treatment, storage and disposal facilities (TSDF's) must provide special employee training, emergency equipment, and contingency plans for handling accidental hazardous waste contaminations. Furthermore, Subtitle C requires the facilities to install ground water monitoring systems and take corrective action if the facility leaks. The TSDF must also comply with regulations created to insure closure and post-closure care at the facility.

RCRA offers some guidance to determine whether a waste is regulated as hazardous or nonhazardous. Solid waste not listed as per se hazardous could still be subject to regulation under Subtitle C if it exhibits any one of the four characteristics: ignitability, corrosivity, reactivity, or toxicity. In 1980, the EPA issued regulations in accord with RCRA requirements. The EPA created a "household waste exclusion." The regulations provided that "household wastes," unless mixed with other hazardous wastes, would be deemed nonhazardous. In the preamble to the household waste exclusion, the EPA expressly indicated that it intended to exempt ash produced from the incineration of household wastes from Subtitle C regulation.

Instead of expressly adopting the EPA policy, Congress enacted the Hazardous and Solid Waste Amendments of 1984 ("HSWA"). The amendment included solid wastes to be regulated under Subtitle C, which are listed under §3001. Incinerator ash was not one of the wastes listed. Section 3001 also exempts specific wastes from regulation even though they may exhibit characteristics considered hazardous.

One category of waste which is exempt from the hazardous waste regulations of Subtitle C is "household waste." The amendment attempted to "clarify" the EPA's household waste exclusion by modifying §3001 of RCRA. However, the amendment did not include the EPA's preamble statement. The definition of what classified as household wastes expressly mentioned only

38 Solid waste is defined by the EPA as any "garbage, refuse, sludge" or any "other waste material" not otherwise exempted. 45 Fed. Reg. 33,093 (1980). The EPA further defined "other waste material" to be material that has "served its originally intended use and sometimes is discarded." 40 C.F.R. §261.3 (1981). However, due to the confusion of when material is "sometimes discarded" in 1985, the EPA defined solid waste as any "abandoned, recycled" or "inherently wastelike" material is discarded material irrelevant of the method of disposal. 50 Fed. Reg. 627 (1985).See 40 C.F.R. §261.2(a)(16)(iii) (1992). Municipal ash must be discarded or abandoned after the waste management process, therefore, it is disposed-of material and subject to regulation as a solid waste. See Jane Ellen Warner, Environmental Law - The Household Waste Exclusion Clarification, 42 U.S.C. Section 6921(i): Did Congress Intend to Exclude Municipal Solid Waste Ash From Regulation as Hazardous Waste Under Subtitle C?, 16 W. New Eng. L. Rev. 149, 152-53 (1994).

39 Id. §6921-39b. Subtitle C establishes strict "cradle-to-grave" standards for hazardous waste.


41 Id. §6941-49a. Subtitle D regulates nonhazardous waste disposal. Subtitle D restricts open dumps and provides criteria for operating sanitary landfills. The national rules provide regulation for location, design, operation, closure, and long-term financial security of municipal landfills. These rules are just the minimum level of regulation for all states.


46 Id. §§264.100 (1987), 265.93(c)-(d) (1983).

47 Id. §§264.111(c), 265.111l(c) (1992). This also includes financially protecting against future harm. Id. §§264.140-151, 265.140-150 (1992).


50 Id. §§261.22 (1993).

51 Id. §§261.23 (1990).

52 Id. §§261.24 (1993). The EPA has developed standardized tests for each characteristic. Id. §§261.21-24.


54 Id.


56 45 Fed. Reg. 33,099 (1980). The preamble states: "The Senate language makes it clear that the household waste is excluded in all phases of its management, residues remaining after treatment (e.g., incineration, thermal treatment) are not subject to regulation as hazardous waste." Id.


59 Id.

60 Id.

61 RCRA §3001(l) exempts household waste in the following manner:

A resource recovery facility recovering energy from the mass burning of municipal solid waste shall not be deemed to be treating, storing, disposing of, or otherwise managing hazardous wastes for the purposes of regulation under this subchapter, if such facility:

(i) receives and burns only:

(A) Household waste (from single and multiple dwellings, hotels, motels, and other residential sources) and

(B) Solid waste from commercial or industrial sources that does not contain hazardous waste; and

(ii) such facility does not accept hazardous wastes identified or listed under this section, and the owner or operator of such facility has established contractual requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received or burned in such facility.


63 Id.
wastes from all residences, hotels, and motels. Incinerator owners and operators were unsure whether Congress intended to regulate ash as a hazardous waste or whether ash was exempt under the household waste exclusion.

When determining the proper construction of ambiguous RCRA provisions the courts will frequently look first to the EPA for clarification. However, the EPA has continually redefined its stance on the regulation of toxic ash residue. As stated above, the EPA declared incinerator ash nonhazardous in 1980. In 1985, the EPA developed a regulation identical to the language of § 3000(i). The preamble of the EPA regulation noted the existence of toxic ash. The EPA interpreted the "household wastes" statute to exclude municipal ash only where toxic characteristics are rarely found in ash residue. This vague statement conflicted with the EPA’s earlier interpretation that ash is exempt under the household waste exclusion.

In 1987, the EPA appeared to be changing its position again. This change occurred in the Senate Subcommittee on Hazardous Waste and Toxic Substances. The Assistant Administrator for the Office of Solid Waste and Emergency Response, J. Winston Porter, testified that Congress probably intended to exclude ash from regulation under Subtitle C. Thus, in 1987 the EPA declared ash to be nonhazardous. In May 1988, the Director of the EPA Office of Solid Waste, testified before the same Senate Subcommittee and restated the EPA’s 1985 stance. The Director stated that if ash exhibits hazardous characteristics, it would be regulated as hazardous waste. Finally, in 1992, the EPA issued a memorandum to all regional EPA Administrators, which stated that ash should be considered a nonhazardous waste.

The 1990 Clean Air Act Amendments created a two year moratorium on municipal solid waste incineration ash regulation. Congress expressly put the household waste exclusion interpretation on hold until it reauthorized RCRA during the 102nd Congress, which it did not complete. Congress did state that the moratorium would not affect any litigation which was presently taking place on the interpretation of the household waste exclusion.

B. Judicial History

In 1988, the Environmental Defense Fund brought suit Wheelabrator Technologies (Wheelabrator) for RCRA violations. This was after several tests were taken from a Wheelabrator resource recovery facility which showed that the ash exceeded allowable toxicity levels. Plaintiffs argued that the ash should be regulated under Subtitle C as a hazardous waste.

The Second Circuit Court of Appeals considered the plain meaning of RCRA, its legislative history, EPA interpretations, and postenactment congressional action. Relying primarily on legislative history, the court found that ash residue was excluded from regulation under Subtitle C as a hazardous waste. The court supported its interpretation of § 3001(i) by quoting extensively from....

64 Id.
65 Groff, supra note 6, at 560.
66 Id. at 572.

The statute is silent as to whether hazardous residues from burning combined household and non-household waste are hazardous waste. These residues would be hazardous wastes under present EPA regulations if they exhibited a characteristic. The legislative history does not directly address this question although the Senate report can be read as enunciating a general policy of non-regulation of these resource recovery facilities if they carefully scrutinize their incoming wastes. On the other hand, residues from burning could, in theory, exhibit a characteristic of hazardous waste even if no hazardous waste is burned... EPA does not see... an intent to exempt the regulation of incinerator ash from the burning of nonhazardous waste in resource recovery facilities if the ash routinely exhibits a characteristic of hazardous waste.

70 Id. For a general discussion see Warner, supra note 38, at 156-57.
72 Id.
73 Id. at 33.
74 Id.
75 Reilly,Deems Incinerator Ash Nonhazardous in Memo to Regions, 23 Solid Waste Rep. (Bus. Pub.) No. 37, at 1 (Sept. 24, 1992). The memorandum stated that the "EPA believes that the text and legislative history of Section 3001(i) are consistent with the agency's view that MWC ash is exempt from hazardous waste regulation" and that the "two statutory goals embodied in Section 3001(i)--protecting the environment and promoting resource recovery from nonhazardous solid waste--are best served by exempting MWC ash from hazardous waste regulation." Id.
76 Pub. L. No. 101-549, 104 Stat. 2399 (1990). Congress decided not to act on a bill which would have regulated ash under Subtitle D of RCRA. Representative Thomas A. Luken noted the ambiguity of the current statutory language in his opening remarks on the proposed regulation. It could be argued that the reason Congress decided maintain the status quo was that it was awaiting judicial decision on the two cases addressed in this note. If Congress is satisfied with the Supreme Courts outcome, their job to further clarify the household waste exclusion has already been accomplished. Warner, supra note 38, at 158 n.64.
77 Id. In the first three weeks of the first session of the 102nd Congress, over 11 amendments or authorization bills were introduced. Id. n.54.
78 H.R. Conf. No. 952, 101st Cong., 335, 342.
80 Id. at 761 n.6. Nine out of ten bottom ash samples taken from the incinerator failed the EPA toxicity test technically rendering the samples hazardous material.
81 Id. at 764.
82 Hershkowitz, supra note 5, at 107.
83 Wheelabrator, 725 F. Supp. at 770.
Toxic Incinerator Ash Regulated as a Hazardous Waste Under RCRA

a Senate committee report and a conference committee report, stating that EPA's conflicting interpretations of RCRA § 3001(i) made it virtually impossible to defer to the Agency's opinion. A 1983 report of the Senate Committee on Environment and Public Works asserted that in addition to the exemption of "treating, storing, disposing of or otherwise managing" household waste, the generation of waste should also be exempted.

The court also reasoned that post-legislative letters written by senators and a representative showed that Congress did not intend to exempt ash with toxic characteristics from regulation as a hazardous waste. However, the court stated that legislative intent is most important at the time the amendment was passed. As indicated in Senate and Committee reports, Congress intended to "encourage energy recovery", which would result in regulation of ash under Subtitle D.

Furthermore, the court focused on the fact that the 1984 statutory amendment was enacted as a clarification to an existing regulatory scheme which continued to exclude ash from a list of hazardous wastes. The Second Circuit unanimously affirmed the district court's "well reasoned" opinion. Subsequently, the Supreme Court denied certiorari.

IV. The Instant Decision

Petitioners first argued that the ash was exempt from hazardous waste status by virtue of statutory language which exempts the municipal solid waste facility. The statutory language referred to is § 3000(i) of RCRA, entitled "Clarification of household waste exclusion." The statute states that mass burning of municipal solid waste is not considered treatment, disposal, or management of hazardous wastes for the purposes of regulation. The Supreme Court found that the "definitive statement of the congressional intent" lies in the actual words of the statute which it considered the "end product of the rough-and-tumble of the political process." The Court noted that the statute does not contain any exclusion for the ash itself and fails to discuss the distinction between waste that is produced compared to waste that is received. Therefore, the Court concluded that there is no express language which supported petitioners' claim of a waste-stream exemption.

The Court also considered the statute's overall purpose to treat, store, or dispose of waste to decrease the present and future harm to the environment and human health. Because of the statute's purpose, the Court found that it cannot support a policy which disposes of toxic ash in ordinary landfills. Additionally, the Court stated that the statutory language does not actually exempt the facility as a generator of hazardous waste. The term "otherwise managing" in §3001(i) is defined to mean "collection, source separation, storage, transportation, processing, treatment, recovery, and disposal." One of the few excluded waste-related activities is generation. Therefore, the Court found that even though a resource recovery facility's management activities are specifically excluded from Subtitle C regulation, the statute did not intend to exclude the facility's generation of toxic ash.

Petitioners next argued that the legislative history of § 3001(i) was evidence that ash was intended to be excluded from Subtitle C regulation. Petitioners relied on a statement in the Senate Committee Report. However, the Court emphasized that it is the statute and not a Committee Report that controls its interpretation. Furthermore, the statute does not ever refer to genera-
tion. The Court compared the language in another RCRA exemption to substantiate this conclusion. Congress amended the Superfund Amendments and Reauthorization Act of 1986 to clarify that an "owner and operator of equipment used to recover methane from a landfill shall not be deemed to be managing, generating, transporting, treating, storing, or disposing of hazardous or liquid wastes within the meaning of" Subtitle C. This provision was amended to include generation as opposed to the household waste exclusion which, when amended, purposely did not include the term "generating.

The petitioners finally contended that by not excluding ash from the household waste exclusion, the Court effectively rendered § 3001 ineffective for its intended purpose of promoting resource recovery facilities. The Court stated that the very purpose of resource recovery facilities is to "manage" waste, and by allowing ash to avoid the EPA’s enforcement, RCRA is not actually protecting against contamination. The Court held that the express meanings of the household waste exclusion and RCRA’s goal are the most reliable guide for what the legislature intended. Thus, ash generated by resource recovery facility’s incineration is not exempt under the household waste exclusion, but subject to Subtitle C regulation as set forth in RCRA.

V. Comment
A. Competing Policies
Part of the Supreme Court’s reasoning in Environmental Defense Fund v. Chicago was that Congress intended to encourage the proper disposal of wastes exhibiting hazardous characteristics when it enacted RCRA. However, this analysis overlooks the two objectives which RCRA continually articulates: to "promote the protection of health and the environment" and "to conserve valuable material and energy resources." The Supreme Court’s recent ruling exempting ash from the household waste exclusion is arguably inconsistent with RCRA’s first objective of protecting health and the environment. Yet regulating ash under the strict rules of Subtitle C is consistent with RCRA’s second objective, conserving valuable material and energy resources.

Most of America’s trash is combustible, with each truckload of household garbage containing the fuel equivalent of twenty-one barrels of oil. Resource recovery facilities exploit a readily available fuel source. Furthermore, incineration is a disposal technology which reduces waste. Many states have set standards of waste reduction as a governmental policy. For instance, Missouri has a goal of thirty-five percent source reduction by the year 2000.

A Senate committee report accompanying proposed legislation states the importance of commercially viable resource recovery facilities. The report further states that the original intent of the household waste exclusion was to exclude ash from regulation in order to encourage the development and operation of resource recovery facilities. The recent Supreme Court ruling will most likely have a deterrent effect on the development and production of waste-to-energy facilities. In fact, with stricter regulations, increased costs are sure to follow. This will greatly hamper RCRA’s policy of conserving valuable material and energy resources.

B. Increased Costs of Regulation
There are several costs in regulating incinerator ash under Subtitle C of RCRA. These burdens will be experienced by approximately 150 facilities nationwide. Every year the United States generates approximately 7.6 billion tons of industrial waste, approximately 300 million tons of hazardous wastes, and around 211 million tons of MSW. Waste combustion facilities in the U.S. generate from seven million to nine

109 Id.
111 Id. The Court cites Keene Corp. v. United States, 113 S. Ct. 2035, 2040 (1993), which states, "It is generally presumed that Congress acts intentionally and purposely" when it "includes particular language in one section of a statute but omits it in another."
112 Id.; U.S.C. §§ 6902 (a)(1), (10), (11).
113 Id. at 1593-94.
114 Id.
115 Id. Justice Stevens, with whom Justice O’Connor joined, dissented. Stevens focused on legislative history to interpret the meaning of the household waste exclusion, similar to the Second Circuit’s reasoning in Wheelabrator. Id. at 1594-1598. The dissent relies on pre-1984 law, EPA’s comments, and the Report of the Senate Committee Id. at 1594-1596. The dissent criticizes the majority for "refusal to attach significance to a single word in a committee report" which “reveals either a misunderstanding or, or a lack or respect for, the function of legislative committees.” Id. at 1596.
116 Groff, supra note 6, at 581.
117 Id.
118 Id.; 42 U.S.C. § 6902(a).
119 Groff, supra note 6, at 580-82.
120 Id.
121 Groff, supra note 6, at 583.
122 Id.
123 Robinson, supra note 4.
124 Id. This goal appears to be a greater reduction than must states, however, Missouri’s reduction goal is not a mandatory deadline, which most states have.
126 Id. The Court in Environmental Defense Fund v. Chicago did not consider the legislative history in their holding, therefore, the Court did not give the Senate committee report much weight.
128 Id.
Toxic Incinerator Ash Regulated as a Hazardous Waste Under RCRA

Million tons of ash per year. The present hazardous waste landfill space existing today would be used up in just a few years if this waste were to be deposited in the existing landfills. New hazardous waste disposal sites are politically difficult to obtain because local communities are hesitant to approve landfill sites. Once landfills are created, there is a constant need for monitoring due to the threat of groundwater and surface water contamination. The decreasing amount of landfill space was a problem Congress intended to solve when it enacted RCRA and specifically promoted the facilities.

Another cost of the strenuous regulation of ash is pecuniary. Testing ash to determine the toxicity levels would increase costs for municipal waste operators. The costs of testing depends on when the EPA decides ash is considered a waste. Testing fly ash and bottom ash separately threaten an increase costs to cities of one million to three million per incinerator.

Congress mandated implementation of RCRA's policy to decrease the amount of MSW disposal on local administrators. However, the regulations are in the developing stage, leaving the local administrators with a need for research and development support, guidance in implementation, or federal funding for the costs of the guidelines. The municipalities mismanaged solid waste is often blamed on the EPA's lack of consistent policy. Once again, because MSW incinerators are financed and operated like other public facilities, with taxpayer dollars, the cost of regulating ash under Subtitle C will be imposed on the local governments, which actually means the individuals of the community.

States also fear CERCLA liability for accepting unregulated hazardous wastes. CERCLA mandates that managers and operators of hazardous wastes facilities are strictly liable for cleanup costs, as well as anyone who arranged for disposal or transported hazardous wastes. The owner or operator would have to pay the government and private parties for damages to natural resources. The severe costs that face the municipalities would be transferred to the communities by either increased garbage disposal costs, increased taxes, or decreased capital improvement projects.

Regulating incinerator ash under Subtitle C does have some positive aspects. The Court's ruling imposes a financial burden on municipalities to dispose of the ash properly, which creates incentives to minimize the amount of toxic ash produced. Because of the overwhelming costs associated with the Supreme Court's ruling, facilities are creating innovative techniques to handle the problem and hoping legislative action will soon follow.

C. Options

The EPA proposed a regulation which would decrease the costs of the testing process. Segregation of bottom ash and fly ash is a solution that is allegedly readily available. Fly ash is more toxic than bottom ash but it is produced in smaller quantities. Equipment which segregates materials during the incineration process can be easily obtained. Once this equipment was installed in a facility, there would be a smaller amount of toxic ash produced. However this equipment is extremely costly.

The incinerator operators favor combining ash for testing because fly ash generally contains more toxic constituents, although the volume is less than bottom ash. The agency debated whether to test the ash separately or to allow bottom ash and fly ash to be combined before testing. If the point of generation of solid waste is considered to be inside the facility, thereby requiring separation of the ash before testing, there was fear that more than just bottom ash and fly ash would be subjected to the testing.
The EPA stated they favored allowing ash to be combined, in other words, waste is not generated until it leaves the facility. The agency made one exception to the rule. If the resource recovery facility presently does not combine the ash before it leaves the facility because the ash forms in separate areas of the facility, they must continue to separate the ash for testing. The EPA’s stance on testing greatly decreases the impact of City of Chicago v. Environmental Defense Fund. The majority of municipal waste operators are currently testing ash in the required manner already. Additionally, The EPA extended the deadline for operators and owners to file for a hazardous waste permit application. Allowing incinerator operators time to comply with the regulations.

Although the EPA has lessened the potential cost impact of the Supreme Court’s ruling, the regulation of ash when found to be toxic will still be costly. The costs may even increase for some facilities. If the ash tests toxic, the combination of bottom ash and fly ash will result in a greater amount of ash that the operator’s will have to regulate as a hazardous waste.

One of the most viable solutions to this waste disposal dilemma is to separate the materials that produce the hazardous waste before the incineration process begins. Virtually all toxic substances which are present in combustion ash are initially present in household waste. This is contrary to dioxins, which are created by the combustion process but do not tend to leach. The two most hazardous toxic metals present in municipal solid waste are lead and cadmium. The resource facilities could refuse to accept these contaminated materials. One way to achieve this is to encourage individuals to separate plastics, batteries, and paint from the everyday garbage. However, implementing this program at the grass roots level would take time and money. Alternatively, the facilities could separate this material themselves. The results of such a program would be evident once the ash was tested for the toxicity.

Technology from Europe which converts the toxic and hazardous materials to nonhazardous glass products is also available. Seiler Pollution Control Systems in Europe can recycle the nonhazardous glass products into a variety of useful products including abrasive, ceramics and fiberglass insulation.

D. Legislative Proposals

In May of 1994 the EPA instigated a compliance schedule for regulatory changes to adapt to the Supreme Court decision. Municipal solid waste incinerator operators should have began testing the ash by August, and applying for a hazardous waste operating permit by November. If the ash tests positive, generators will be responsible for treating the ash to below characteristic levels or disposing ash in Subtitle C hazardous waste landfills. EPA is willing to exempt the industry from retroactive liability in exchange for these stringent management requirements. The agency is presently considering land disposal restrictions specific to ash that tests hazardous. Many groups started devising legislation at the same time the EPA was establishing guidelines. The House Energy and Commerce Subcommittee on Transportation and Hazardous Materials encouraged interest groups to submit legislative proposals by July 29, 1994. However the committee admitted,

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153 Id. At least 58 waste-to-energy facilities nationwide are currently testing their ash in this manner. Id. Even before the EPA’s current stance, after the first quarter testing at about 150 waste-to-energy facilities, only one facility had to close due to hazardous ash. Hazardous Waste: Impact of Supreme Court Decision on Ash has Been Minimal, Industry Official Claims, 25 Env't Rep. (BNA) 1378 (November 18, 1994).
154 Determination of Point at Which RCRA Subtitle C Jurisdiction Begins for Municipal Waste Combustion Ash at Waste-to-Energy Facilities. 60 Fed. Reg. 6666. The changes must have been completed within 75 days of February 3, 1995, notice from the EPA. Id.
155 Sale, supra note 42, at *15.
156 Id.
157 Id. The most prevalent sources of lead are car batteries and non-combustible electrical equipment, for instance, television screens and plastics. The largest sources of cadmium in municipal waste are rechargeable batteries, plastics, and paint. Id.
158 The cost imposed on the facilities for such a program are unknown at this time.
159 Supreme Court Ruling is Favorable to Seiler, PR Newswire, May 6, 1994. Seiler Pollution Control Systems sold three systems through its subsidiary in Europe in fiscal 1994 and predicted its sales revenues based on these order would be $20 million. Id.
160 Id.
161 Group Distributes Legislative Proposal on Incinerator Ash; Seeks Support for Plan, Nat'l Env't Daily (BNA), at D-8 (August 16, 1994).
162 Id.
163 Hazardous Waste: Combustion Ash Managers, EDF Discussing Legislative Alternative to EPA’s Scheme, National Environment Daily (BNA), at D-13 (June 21, 1994).
164 Id.
165 Id.
166 Swift Says Deadline Looms for Submission of Alternative Combustion Ash Proposal, National Environment Daily (BNA), at D-4 (July 28, 1994). Peter Robertson, deputy administrator for the EPA Office of Solid Waste and Emergency Response, said his agency would work with various interest groups to pass legislation. Specifically he stated that the EPA would be responding to the Supreme Court ruling by:

1) Development of final guidance on sampling and analysis of municipal solid waste incinerator ash;
2) Promulgation of land disposal restriction standards for treatment of hazardous ash prior to land disposal; and
3) Preparation of implementation guidelines that would address many questions EPA has received regarding regulation of municipal solid waste ash.
Id.
167 Id.
Ash Regulated as a Hazardous Waste Under RCRA

"this is a very bad way to make policy." The chairman complained that the Court's ruling forced Congress to deal with the issue of ash "quickly and out of context" rather than through deliberate reauthorization of RCRA. On August 12, 1994, a group consisting of local governments, waste-to-energy facilities, and the EDF distributed a legislative proposal. This proposal would create special procedures to regulate the ash under Subtitle D of RCRA. Ash would be regulated under Subtitle D except that certain Subtitle C procedures would apply, including: inspections, federal enforcement, site monitoring, and a requirement that regulations take effect six months after promulgation. This would mean that ash would not have to be tested for hazardous characteristics. The proposal also eliminates potential retroactive liability for any damages ash may have caused. The group is presently rallying support for the proposal.

The proposal also implements a transition policy. The plan allows a seven-and-a-half year transition to a disposal system in which ash would be put in a Subtitle D monofill or monocell with a double liner. By January 1, 1995, ash should be disposed of in a landfill with at least a single liner and a leachate collection system, and ground water monitoring would be required. The landfill must comply with other 40 C.F.R. 258 regulations, and could not release contaminants to ground water or surface water. "Good Housekeeping" provisions would be in place, such as avoiding fugitive dust emissions, and runoff and transportation would take place in only non-leaking covered trucks. Burning of batteries would be prohibited. Ash could only be used for a limited purpose, such as research, under a permit, or as a cover in limited circumstances. Ash used for subsurface road material would have to be approved by EPA within thirty-six months of enactment.

Within thirty months after that, a new landfill would have to be used. The landfill must be a monofill with a double liner (a composite liner and a synthetic liner). Also, the monofill must implement a leachate collection system, a leak detection system, and a composite final cover system. Five years after enactment, ash would no longer be allowed to go into units created by vertical expansion of non-complying units. Additionally, the use of bottom ash as cover material would cease. At this stage, ash disposal facilities would be required to have permits or prior approval requiring compliance. Under this proposal, EPA and states could enact more stringent regulations regarding disposal, utilization, and handling.

Many interest groups are concerned with legislative intervention in the Court's ruling. The concern is that legislative action will not be particularly protective of the environment or health.

VI. CONCLUSION

The consensus among waste-to-energy operators and owners, municipalities, and various interest groups is that the imposed costs on the incineration process will defeat the goal of resource recovery. A detrimental result would be a return to the disposal of municipal solid waste in landfills. Landfill space is a scarce commodity and a poor use of this country's share of the earth. A more viable solution is to encourage waste-to-energy facilities to decrease the toxic ash that is produced. The proper incentives may depend on the manner in which the EPA enforces Subtitle C. Hopefully, the EPA will work with the various interest groups and cities to create an implementation program that diminishes costs of the Court's ruling, yet protects the environment.

166 Id.
167 Id.
168 supra note 163. The group that devised the "bill" included: EDF, WMX Technologies Inc., the Integrated Waste Services Association, the League of Cities, the National Association of Counties, the city of Chicago, and the Solid Waste Association of North America.
169 Id.
170 Id.
171 Id.
172 Id.
173 Id.
174 Id.
175 Id.
176 Id.
177 Id.
178 Id.
179 Id.
180 Id.
181 Id.
182 Id.
183 Id.
184 Id.
185 Id.
186 Id.
187 Id.
188 Id.
189 Id. After the federal rules are promulgated, states could apply for approval to administer the ash regulations. State programs must include permits or other approval of ash use project. In the end, the EPA would retain enforcement authority. Id.
191 Id.