

around 20–25% of the total by weight. The fly ash from a WTE facility's different air pollution control devices typically is consolidated and then combined with the bottom ash via enclosed conveyors at the bottom of the MWC where it is cooled and conveyed to a storage area. EPA estimates that nearly 80% of WTE facilities routinely combine their ash.

The regulation of WTE ash has been the subject of controversy and debate ever since the inception of the hazardous waste management program under Subtitle C of RCRA. EPA's notice of June 7, 1994 (59 Fed. Reg. 29372) provides a discussion of the regulatory history of ash from WTE facilities. The following section summarizes that discussion.

#### *B. Regulatory History of Waste-to-Energy Ash*

In 1980, EPA promulgated a rule exempting household wastes from all RCRA requirements for hazardous wastes (40 CFR 261.4(b)(1)). EPA interpreted this exemption to extend to the residuals from the treatment of household wastes, including ash from the combustion of household wastes. The exemption, however, did not address ash from the combustion of household wastes combined with nonhazardous commercial and industrial wastes.

In 1984, Congress added to RCRA a new Section 3001(i). This provision addressed WTE facilities burning exempt household hazardous wastes and nonhazardous commercial and industrial wastes to produce energy. In July 1985, EPA promulgated a rule that codified this provision. In the preamble accompanying this rule, EPA announced that it interpreted the statute to exempt the combustion of waste, but not the management of ash, from Subtitle C (50 Fed. Reg. 28702, 28725–26 (July 15, 1985)). Since 1985, the Agency's interpretation of § 3001(i) of RCRA has been a subject of much debate.

In September 1992, EPA Administrator William Reilly signed a memorandum announcing that the Agency interpreted Section 3001(i) to exempt from all Subtitle C requirements ash from WTE facilities burning household wastes and nonhazardous wastes. On May 2, 1994, the Supreme Court issued an opinion interpreting Section 3001(i) of RCRA, 42 U.S.C. 6921(i). *City of Chicago v. EDF*, 114 S.Ct. 1588 (1994). The Court held that this provision does not exempt ash generated at WTE facilities burning household wastes and nonhazardous commercial wastes from the hazardous

waste requirements of Subtitle C of RCRA.

As a result of this decision, persons generating ash from WTE facilities must determine whether the ash is hazardous. Studies show that ash sometimes is a hazardous waste under RCRA because it exhibits EPA's toxicity characteristic (TC). Generally, this determination is made by either testing using the Toxicity Characteristic Leaching Procedure (TCLP) (see 40 CFR § 261.24) or by using knowledge of the combustion process to determine whether the ash would exhibit the TC. Typically, ash that "fails" the TC leaches lead or cadmium above levels of concern. Existing studies also show that fly ash contains the highest concentrations of inorganic chemical constituents. It is more likely to exhibit the TC than either bottom ash or combinations of bottom ash and fly ash. Ash that is determined to be a hazardous waste must be handled in compliance with EPA regulations for hazardous waste management. Ash that is determined not to be a hazardous waste may be disposed in a non-hazardous waste facility.

#### *C. Initial Agency Reaction to the Supreme Court Decision*

While the Supreme Court decision ended nearly a decade of controversy over the general regulatory status of ash, it also raised some new legal and policy issues. To provide some immediate interim guidance, the Agency issued several documents shortly after the Supreme Court decision.

First, on May 24, 1994, the Agency released for immediate use a draft guidance manual for "Sampling and Analysis of Municipal Refuse Incinerator Ash." The purpose of the manual was to assist owners and operators of MWCs in designing a plan for testing ash to determine whether it is hazardous. On June 23, 1994, EPA formally requested public comment on the draft guidance (59 Fed. Reg. 32427). The comment period ended on September 21, 1994. The Agency intends to issue a final guidance manual in the Spring of 1995.

Second, on May 27, 1994, EPA issued a memorandum outlining an implementation strategy to assist affected parties in achieving compliance with the Court's decision. The strategy identified the Agency's priorities for pursuing enforcement actions concerning the management of MWC ash. The Agency intends to issue a revised implementation strategy shortly.

Third, on June 7, 1994, the Agency published a notice addressing two issues of statutory and regulatory

interpretation related to the management of WTE ash that is hazardous (59 Fed. Reg. 29372). First, the notice extended the deadline within which owners/operators of facilities that treat, store, or dispose of hazardous ash must file a hazardous waste permit application. This action gave owners and operators of facilities that manage hazardous ash six months to apply for "interim status" under the RCRA hazardous waste regulatory program. Without interim status, the facility would be out of compliance with RCRA's permit requirements and face potentially significant civil and criminal penalties.

The second issue discussed in this notice was the Agency's interpretation that ash from WTE facilities be classified as a "newly identified waste" for the purposes of the RCRA land disposal restrictions (LDRs), meaning that the current land disposal restrictions do not apply. When the restrictions apply, hazardous ash will have to meet specified treatment standards prior to land disposal. EPA currently takes the position that if a waste exhibits a hazardous waste characteristic at its point of generation, it must meet LDR standards even if it ceases to exhibit the characteristic prior to land disposal.

### **III. The Point of Subtitle C Jurisdiction**

#### *A. EPA's Interpretation*

##### **1. Legal Analysis**

Neither the Supreme Court's decision on ash nor any of EPA's previous policy statements on ash address the point at which the ash generated by a WTE facility becomes subject to Subtitle C of RCRA—in other words, at which point or points in the facility the owner/operator must determine whether the ash exhibits the toxicity characteristic of a hazardous waste (and, in the future, the point at which LDR restrictions will begin to apply).

Section 3001(i) provides that "[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 waste \* \* \*," if certain conditions regarding waste receipt are met. In the *City of Chicago* case, the Supreme Court issued a narrowly focused opinion addressing the issue of whether this language created an exemption for ash generated by resource recovery facilities. Noting that the provision fails to mention ash and fails to include "generation" in the list of exempted activities, the Court found that no exemption for ash was intended. 114 S.