



Strategy Update

A Newsletter on EPA's Hazardous Waste Minimization and Combustion Activities

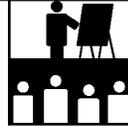
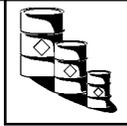
THE Director's Chair

By Mike Shapiro
Director, EPA Office of Solid Waste

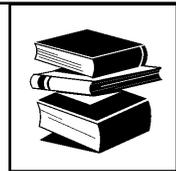
Although it has been some time since the last *Strategy Update* was distributed, and despite the difficult fiscal climate that EPA has faced since last October, quite a few significant efforts have been advancing in the Agency. This issue of the *Update* details some of the main Agency initiatives, particularly the proposed rule (just released) to set technology-based limits on emissions of hazardous air pollutants from hazardous waste combustors. Other milestones, such as the release of the final rule to enhance public participation in RCRA permitting, are noted as well.

EPA is continuing to implement the Waste Minimization National Plan. Over the past 6 to 12 months, our efforts have focused on identifying 1) the top candidate waste streams and 2) industrial sectors to which EPA waste minimization efforts will be directed. At this point, we are seeking comments on a November 1995 draft of Setting Priorities for Minimization of Combusted Hazardous Waste (available through the RCRA Hotline). In partnership with the states and EPA Regional offices, we will be launching various pilot projects in the coming year. In addition, we will use waste minimization as a

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TECHNICAL STANDARDS



Hazardous Waste Combustion Rule Proposed

EPA has proposed revised emissions standards to reduce hazardous air pollutants in its proposed rule, Revised Technical Standards for Hazardous Waste Combustion Facilities (expected to be signed in early 1996). This rule would apply to hazardous waste incinerators and cement kilns and lightweight aggregate kilns that burn hazardous waste as fuel.

In the Agency's May 1993 Hazardous Waste Minimization and Combustion Strategy, EPA made a commitment to upgrade the emission standards for hazardous waste-burning facilities and emphasized waste minimization. The three categories of facilities covered in this proposal burn more than 80 percent of the total amount of hazardous waste being combusted each year. (The remaining 15 to 20 percent is burned in industrial boilers and other types of industrial furnaces, which will be addressed in a later rulemaking.)

The proposed standards would limit emissions of dioxins and furans, mercury, semi-volatile metals (cadmium and lead), low-volatile metals (arsenic, beryllium, chromium, and antimony), particulate matter, acid gas emissions (hydrochloric acid and chlorine), hydrocarbons, and carbon monoxide. The standards would impose the Maximum Achievable Control Technologies (MACT), which are performance standards required by the Clean Air Act (CAA). MACT reflects the maximum degree of hazardous air pollution reduction at existing facilities that can be achieved considering the availability, current use, costs, benefits, and impacts of emissions control technologies.

While hazardous waste-burning cement and lightweight aggregate kilns are currently regulated under the Boilers and Industrial Furnace (BIF) Rule (40 CFR Part 266, Subpart H), this proposed rule would augment those requirements. The BIF rule had specified that continuous emissions monitors (CEMs) be installed at these facilities for carbon monoxide, total hydrocarbons, and oxygen. This rule proposes requirements for facilities to install CEMs for particulate matter and mercury as well.

The proposal would reduce the current "small quantity burner" exemption, which had exempted some facilities that burned up to 2,000 gallons of hazardous waste per month. Now only facilities that burn less than 27

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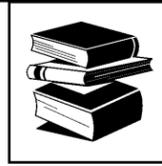
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Facilities Subject to Proposed Emissions Standards

- **Hazardous waste incinerators**—enclosed, controlled flame combustion devices used primarily to treat organic and/or aqueous wastes. As of November 1994, there were 28 commercial incinerators and 134 non-commercial incinerators.
- **Hazardous waste-burning cement kilns**—many cement kilns receive liquid hazardous waste to burn as fuel to run their cement processes. Cement is produced by heating mixtures of limestone and other minerals or additives at high temperatures in a rotary kiln, followed by cooling, grinding, and finish mixing. As of November 1994, there were 26 cement kilns burning hazardous wastes on a commercial basis.
- **Hazardous waste-burning lightweight aggregate kilns**—many lightweight aggregate kilns burn liquid hazardous waste as fuel to run their processes as well. Lightweight aggregate refers to a wide variety of raw materials (such as clay, shale, or slate) which, after thermal processing, can be combined with cement to form concrete products. It is produced either for structural or thermal insulation purposes. As of November 1994, there were seven lightweight aggregate kilns burning hazardous waste.

TECHNICAL STANDARDS

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gallons per month would be exempt. In addition, to provide some regulatory relief to some of these and to other facilities, the proposal contains a “comparable fuels specification,” which will exempt some of the hazardous waste fuel burned by cement and lightweight aggregate kilns, if it has essentially the same key characteristics as fossil fuel.

EPA believes that this proposal will create significant incentives for waste minimization (source reduction and recycling) and will present opportunities for facilities to use waste minimization to help achieve compliance with MACT standards. Of the 3 million tons of hazardous waste combusted in 1991, approximately 2 million tons were combusted at onsite facilities (i.e., the same facilities at which the waste was generated). Combustion at an onsite facility therefore presents a situation in which the same facility owners and operators may have some measure of control over the generation of waste at its source and its ultimate disposition.

EPA believes that roughly 15 percent of all combusted wastes may be amenable to waste minimization. The three categories of waste generating processes that appear to have the most potential in terms of tonnage reductions are: 1) solvent and product recovery/distillation procedures, primarily in the organic chemicals industry; 2) product processing wastes; and 3) process waste removal and cleaning.

To minimize the burden on the Agency and the regulated community, EPA is proposing this rule under the joint authority of the Clean Air Act (CAA) and the Resource Conservation and Recovery Act (RCRA). The proposal establishes a common-sense approach that provides for combined or coordinated CAA and RCRA permitting of these facilities; allows maximum flexibility for regional, state, and local agencies to determine which of their resources will be used for permitting, compliance, and enforcement efforts; and integrates the monitoring, compliance testing, and recordkeeping requirements of the CAA and RCRA so that facilities will be able to avoid two potentially different regulatory compliance schemes.

EPA has met with the stakeholders involved with this proposed rule including owners and operators of affected facilities, environmental groups, citizens' groups, nonprofit health organizations, and states. Their feedback was considered on all regulatory approaches.

The Agency requests comments on potential or demonstrated applications of waste minimization to reduce the quantity or toxicity of waste fed to affected combustion units. The Agency also requests comments on two options related to waste minimization. The first option involves extending the three-year compliance deadline for facilities that show that their waste minimization and pollution prevention initiatives require an additional year to bring the facility into compliance. The second option is a set of alternative permit application reporting requirements for facility waste minimization and pollution prevention activities, including mandatory reporting on all permit applications or reporting when requested by the permitting agency.

Stakeholders may submit comments on this proposed rule up to 60 days from the date of publication. Commentors must send an original and two copies (and a voluntary copy on computer diskette) of their comments to: RCRA Information Center, U.S. Environmental Protection Agency, 401 M Street, SW. (5305W), Washington, DC 20460. The docket number F-96-RCSP-FFFFF should appear on all comments.

For more information, contact the RCRA Hotline at 800 424-9346 (toll-free) or 703 412-9810 locally. The rule and background support documents are available on the Internet. Go to gopher.epa.gov or <http://www.epa.gov> and then access “Offices and Regions,” “Office of Solid Waste and Emergency Response,” and “Office of Solid Waste.”

PERMITTING AND PUBLIC INVOLVEMENT



Public Participation Rule Announced

On December 11, 1995 (60 FR 63417), EPA promulgated the RCRA Expanded Public Participation Rule to empower communities to become more actively involved in local hazardous waste management. The rule calls for earlier public involvement in the process of permitting hazardous waste facilities and expands public access to information about facilities.

Under Subtitle C of the Resource Conservation and Recovery Act (RCRA), EPA is required to encourage and assist public participation when permitting hazardous waste facilities. Prior to the expanded rule, some stakeholders (including environmental groups, business trade associations, and citizens) had expressed concern that RCRA's public participation requirements involved the public too late and did not provide enough information about the permitting process and facility activities.

The RCRA Expanded Public Participation Rule adds to the existing public involvement requirements by involving the public earlier in the permitting process and at key points throughout the process. Specifically, the rule amends RCRA's permitting procedures in the following four ways:

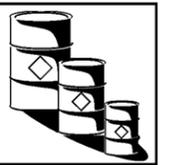
- Permit applicants must **hold an informal meeting with the public** to discuss proposed hazardous waste management activities with community members before applying for a permit to conduct these activities.

- The permitting agency must **announce the submission of a permit application** by sending a notice to everyone on the facility mailing list. The announcement will tell community members where they can examine the application while the agency reviews it.
- The permitting agency director may **require a facility to set up an information repository (or library)** at any point during the permitting process or the permit life. The repository should include relevant documents, such as the permit application, reports, and any other information the director wishes to make available.
- The permitting agency director must **notify the public prior to a trial (or test) burn** at a combustion facility by sending a notice to everyone on the facility mailing list.

In developing this rule, EPA acknowledged that facility owners, state environmental agencies, tribes, and private citizens know the levels of public participation that work best in their communities. As a result, EPA's regulations provide the basic requirements needed to fulfill the public participation goals. Additional activities that facilities might conduct are recommended rather than required.

In addition, the rule addresses environmental justice concerns. By expanding public participation and access to information, the rule empowers all communities to become actively involved in the permitting process and to increase their understanding of hazardous waste management.

WASTE MINIMIZATION



Plan Implementation Underway

Since the completion of the Hazardous Waste Minimization National Plan in May 1995, EPA has developed a number of projects to support the Plan's goals and objectives. The Plan affirms a national policy to prevent pollution and practice source reduction as much as feasible. It also strives to promote accountability and involve the public in decision-making (see the January 1995 issue of *Strategy Update* for a complete list of the Plan's goals and objectives). The following are descriptions of some EPA activities underway to support the Plan:

- **Measuring Progress:** EPA is developing tools for measuring progress towards the Plan's national goals. The goals are to reduce persistent, bioaccumulative, and toxic (PBT) constituents by 25 percent by 2000 and 50 percent by 2005.
- **Identification of Waste Minimization Alternatives:** Data collection is essential for achieving the Plan's objectives. EPA is identifying priority waste streams containing PBT constituents that are combusted.

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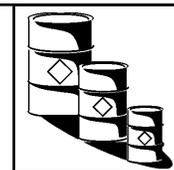
tool to complement the hazardous air pollutants emissions reductions contemplated under EPA's proposed rule for hazardous waste burners.

Of course, perhaps the most visible and controversial project has been the proposed rule setting emissions limits for hazardous waste incinerators and hazardous waste-burning cement kilns and lightweight aggregate kilns. Developed under the "maximum achievable control technology" (MACT) provisions of the Clean Air Act Amendments of 1990, this proposal would mandate that these burners use aggressive pollution control measures, particularly with respect to the top pollutants of concern—dioxins, furans, and metals (including mercury). At this point, the comment period is open, and we encourage all interested parties to make their views and pertinent data known to the Agency. Details on how to do this are contained in this *Update*.

The MACT proposal and the Waste Minimization National Plan are central elements of EPA's Combustion Strategy. I strongly believe that our Strategy will make a difference in terms of ensuring that waste minimization remains our top priority and that combustion's role is well-defined and closely regulated. We urge everyone to continue to participate in the national dialogue on these and other significant issues that fall within the umbrella of EPA's Strategy. This dialogue has been truly invaluable in helping EPA to move in common-sense and effective directions. Keep it up!

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- **Identification of Waste Minimization Activities for Boilers:** EPA is identifying source reduction and recycling opportunities for hazardous waste-burning incinerators, cement kilns, and lightweight aggregate kilns, as well as boilers and industrial furnaces that generate priority waste streams containing PBT constituents. The Agency is also educating stakeholders about these opportunities by assembling guidance on achieving reductions in waste stream volume and toxicity and by identifying major opportunities to implement these reductions. In addition, EPA is identifying specific permit and nonregulatory mechanisms for encouraging waste minimization and incorporating waste minimization wherever feasible into rulemakings associated with boilers.
- **Development of Outreach Materials:** To involve the public more in waste minimization implementation decisions, EPA formed a team to identify opportunities for outreach and to develop outreach tools, such as videos, pamphlets, and bulletin boards. An informational brochure on the Waste Minimization National Plan is forthcoming.
- **Development of a Waste Minimization Network:** The Waste Minimization Network consists of Headquarters and Regional EPA staff and state representatives. The Network identifies and supports effective state and Regional projects that best promote the goals of the Plan. EPA and states are important stakeholders and are responsible for helping to identify waste minimization activities.
- **Regional and State Waste Minimization Managers' Training:** EPA has developed training materials and will be conducting pilot training sessions for Regional and state waste minimization managers and staff. The training is designed to help these individuals recommend waste minimization approaches when they interact with companies at the time of permitting, inspection, and enforcement.

In addition to these initiatives directly supporting the Waste Minimization National Plan, EPA is addressing waste minimization opportunities at facilities that are likely to be impacted by the proposed Hazardous Waste Combustion Rule (see page 1 for more information). Specifically, EPA is assembling waste minimization guidance for facilities that intend to remain under the tightened "small quantity burner exemption" by reducing the volume of hazardous waste burned. Similarly, EPA is assembling guidance to assist generators in reaching the "comparable fuels" specifications by reducing the toxicity of the hazardous waste generated through waste minimization.

For More Information

For more information about the Public Participation Rule, the Proposed Combustion Rule, or the Waste Minimization National Plan, call the RCRA Hotline at 800 424-9346 or TDD 800 553-7672. Copies of these and related documents can be obtained by writing: RCRA Information Center (RIC), U.S. Environmental Protection Agency, Office of Solid Waste, 401 M Street, SW. (5305W), Washington, DC 20460.