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Draft Strategy on Combustion and Waste Minimization

Project Plans

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

August 31, 1993

NOTE

TO: Recipients of Projects Plans for EPA's Draft Strategy on Combustion and Waste Minimization

FROM: Jeffery Denit, Acting Director
Office of Solid Waste

The attached document is an overview of EPA's project plans for implementing the Draft Strategy on Combustion and Waste Minimization released on May 18, 1993. We have attempted to summarize the main projects that EPA will undertake and their constituent elements, and to provide general time frames in which Agency action is expected.

As each project is pursued, a host of issues and concerns will undoubtedly be raised by the various stakeholders involved. The Agency expects to address these issues and concerns as they arise, but we have not attempted to detail them in these project plans. Rather, our intention is for these plans to inform the stakeholders on the avenues that are or will become available in which their issues and concerns can be fully explored.

If you have any questions about these project plans, please contact the individual designated in each area or Matt Straus or Fred Chanania in our Waste Management Division (703-308-8414).

PROJECT PLANS

FOR

EPA'S DRAFT STRATEGY ON COMBUSTION AND WASTE MINIMIZATION

August 1993

PREFACE

The attached project plans provide an initial overview of the implementation of specific elements of EPA's Draft Strategy on Combustion and Waste Minimization, released on May 18, 1993. These project plans reflect comments from the State-EPA Committee on Hazardous Waste Management. A number of issues raised by the State-EPA Committee, even if not specifically noted in the project plans, will be addressed in the context of individual projects as they are developed. In addition, EPA will continue its outreach program to all stakeholders to ensure that all important concerns and points of view are considered in these projects as well as in other implementation aspects of the Draft Strategy on Combustion and Waste Minimization.

DRAFT STRATEGY PROJECT PLANS

WASTE MINIMIZATION AND SOURCE REDUCTION

Outreach, Discussion Document, and Roundtable

The Agency needs to forge broad partnerships for aggressively pursuing source reduction of all types of waste being generated. Industry input, adoption, and implementation of source reduction and recycling initiatives, as well as addressing environmental group concerns are keystones. EPA will have a series of meetings with industry, environmental and citizen groups, and states to hear their views and recommendations. The Agency also plans to have a national Waste Minimization Roundtable meeting in November 1993 that will bring all parties to the table to discuss and strategize how best to optimize hazardous pollution prevention in this country.

In its meetings, the Agency will discuss all effective mechanisms to encourage source reduction and recycling of all types of waste, although an initial emphasis may be placed on combustible waste. RCRA has limitations on its regulatory authority regarding source reduction and recycling at the generator level; however, some progress has been made through enforcement and permitting activities in initiating waste minimization activities.

Prior to the national Roundtable in November 1993, the Agency will release for review a Discussion Document. This Discussion Document will look at specific mechanisms for source reduction within RCRA, and through state authorities and voluntary mechanisms. The Discussion Document will also frame the key waste minimization issues as a means to facilitate the dialogue at the Waste Minimization Roundtable expected to be held in November 1993.

Interim Final Guidance on Waste Minimization Program in Place

Published in the Federal Register on May 28, 1993, the intention of this Guidance is to: 1) provide a centerpiece that can be used to focus generators' efforts in hazardous waste minimization; 2) clarify EPA's policy on what an adequate waste minimization program in place under RCRA should look like; 3) specify what activities EPA considers to be "waste minimization;" and 4) open a debate on the relative merits of different kinds of recycling. The public has been invited to submit written comments on this Guidance. In addition, we will have discussions about this Guidance at the November Roundtable with industry, states, environmental and citizen groups, and the Regions. We anticipate addressing these comments in mid-1994, most likely through publication of a final guidance document.

Publication of List of Generators Required to Have Waste Minimization Programs in Place

RCRA sections 3002(b) and 3005(h) require hazardous waste generators to sign waste minimization certifications on their hazardous waste manifests and, if those generators are also permittees of treatment, storage, and disposal units, to have a waste minimization program in place.

EPA will publish a list of generators who must certify that they have programs in place and will send letters to these companies requesting that they make their programs public to the extent consistent with business confidentiality considerations. The letters to companies will be sent out in the second quarter of FY 1994, and the list published in the third quarter of FY 1994.

Targeting

In addition to addressing major issues associated with hazardous waste management, EPA will concentrate its efforts on specific waste streams and on those industries and processes that, when waste streams are minimized, will result in the greatest environmental benefit. In addition, the technical feasibility of reduction in waste streams as well as compatibility and coordination of federal and state waste minimization programs will be considered. Available data bases, such as the BRS and TRI, will be used to assist in this evaluation. The analysis of the generator universe will begin in the third quarter of 1993. A draft targeting plan will be put together in the second quarter of FY 1994. Implementation of that plan will begin thereafter.

It should be emphasized that the Office of Solid Waste (OSW) sees value in reduction of all hazardous waste. However, the initial focus will be on those wastes that ultimately are incinerated or burned in boilers or industrial furnaces. This is mainly a starting point from which EPA will begin our waste minimization campaign in the context of RCRA wastes. OSW will continue and expand its efforts in seeking to minimize ALL hazardous wastes, and will gain valuable lessons that can be applied to the larger generation universe from this combustion strategy. At the same time, OSW will also be looking carefully on the impacts of waste minimization on the amount of capacity available for waste combustion. On this and all other issues, EPA will work closely with the states.

Final Waste Minimization and Waste Management Strategy

After the Waste Minimization Roundtable and other analysis has been done, EPA will finalize its Waste Minimization Strategy most likely in the first quarter of FY 1995. The final Waste Minimization Strategy will of necessity have to be based on a detailed understanding of the generator universe, the treatment

universe, waste minimization opportunities that exist, state and federal coordination, and impacts of waste minimization on manufacturing as well as waste generation and treatment. In addition, the Agency will also need to understand the impact of its final strategy on the amount of capacity available for waste combustion and the states' capacity assurance plans.

This strategy will include mechanisms that the Agency believes will be the most effective in achieving source reduction and recycling. Many of these mechanisms may lie both within current RCRA authority as well as outside of RCRA. In evaluating these mechanisms, the Agency will also be cognizant of the economic and operational impact on both the generators and the hazardous waste treatment industry. EPA will look carefully at many of these issues, including: the beneficial role that source reduction can play in helping combustion units meet technical standards; the shifts in the use of virgin fuels and price of fuels burned in boilers and industrial furnaces, the price of treating hazardous waste, shifts in recycling as a result of source reduction; operational behaviors of industry changing as a result of source reduction and recycling; understanding the decrease or increase in risks and environmental trade-offs resulting from increased source reduction and recycling activity; the economic impacts to the combustion industry; and the economic impacts and benefits to the generators.

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TECHNICAL STANDARDS

The primary effort is to review and evaluate the current regulations for incinerators, boilers, and industrial furnaces burning hazardous waste to determine which provisions should be revised to strengthen the controls, to make them more readily implementable, and to clarify ambiguities. In addition, EPA will continue on-going activities to implement the Boiler and Industrial Furnace (BIF) rule. Finally, EPA will evaluate alternative treatment technologies to identify the advantages and disadvantages of available treatment technologies as possible alternatives to combustion.

Upgrade Regulations

To identify and discuss concerns with the incinerator and BIF regulations, EPA expects to conduct a Roundtable for stakeholders in November, 1993. Representatives of regulated facilities, EPA Regions, states, and local and national environmental and citizen organizations will be invited to participate. To facilitate discussions at the Roundtable, the Agency will develop a Discussion Document containing a menu of issues/problems and possible options for resolution for distribution prior to the meeting. The Discussion Document will be based primarily on issues raised at the BIF Roundtable held in February, 1993, comments to be solicited from invitees to the upcoming Roundtable, and input from Agency-state groups involved in considering potential proposals to revise the regulations.

EPA will also evaluate whether additional emissions testing is needed to better characterize organic and metals emissions, better understand the design and operating factors that affect emissions, and evaluate control alternatives. Further, the Agency will evaluate the need to identify, test, and validate better continuous emissions monitors. In considering approaches and developing options for upgrading the technical standards, EPA will also consider other issues related to the design and execution of trial burns, the nature and coverage of state regulatory programs, new versus existing facilities, encouragement of "state of the art" technology, and state capacity planning issues (to the extent relevant). In addition, cross-program issues related to waste combustion and Land Disposal Restrictions will be considered.

The Office of Solid Waste (OSW) will be holding discussions with the Office of Air Quality Planning and Standards (OAQPS) to determine whether to issue regulations under joint authority of the Resource Conservation and Recovery Act (RCRA) and Section 112 of the Clean Air Act (CAA). OAQPS' current schedule for proposing MACT (maximum achievable control technology) standards for cement kilns is consistent with OSW's schedule for revising the hazardous waste combustion rules; issuing rules under joint

authority for hazardous waste burners in other source categories (e.g., incinerators, industrial boilers, utility boilers, halogen acid furnaces) will also be discussed.

EPA's current plans are to propose revised combustion rules in early 1995, and to promulgate final rules a year later.

On-Going Activities to Implement the BIF Rule

EPA will continue work on a number of activities to implement the BIF rule. For example, the Agency is considering the development of an administrative stay of the health-based nonmetal limits for Bevill-excluded residues.

Evaluation of Alternative Treatment Technologies

Alternatives to hazardous waste combustion involving innovative treatment technologies have the potential to play a role in the management of hazardous waste. Although alternative treatment technologies are available or under development, they have individual advantages and disadvantages. EPA's investigation will use the results of on-going efforts wherever possible (e.g., the American Society of Environmental Engineer's Waste Tech program) to evaluate alternative technologies considering factors including: status of development; types of waste matrices amenable to treatment; types of toxic compounds amenable to treatment; treatment efficiency; treatment emissions; residue management; cost; and administrative issues. This evaluation will start in Fall 1993 and be ongoing. Results of the evaluation will be factored into other projects (e.g., waste minimization; technical standard development) on an as-needed basis.

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PUBLIC INVOLVEMENT AND PERMITTING RULEMAKING

As an outcome of the May 18, 1993 Draft Combustion Strategy, a rulemaking is underway to enhance public participation and improve the permitting process at RCRA sites. The focus will be on identifying means to encourage effective public participation and on maintaining the administrative feasibility of the permitting process.

In the area of public involvement, EPA is evaluating possible proposals to expand participation in the following areas:

- Application Submittal
- Draft Trial Burn Plan
- Draft Risk Assessment.

The permitting piece of the rulemaking will focus on proposals for changes to procedures and regulations in the following areas:

- Revising 270.42 Appendix I modification table to more accurately reflect shake down and trial burn scenarios.

- Developing guidance on trial burn failure and retesting.

- Foreclosing continued operations at interim status facilities at which permits have been denied.

A proposed rule is currently estimated to be published in the Federal Register in the fourth quarter of FY 1994, and a final rule is expected approximately one year later.

EPA will also continue its public participation outreach efforts through the RCRA Public Involvement Network. The Network is composed of EPA representatives who carry out RCRA public participation activities in their affected Regions. EPA, in conjunction with the Network, drafted the RCRA Public Involvement Manual. This guidance manual provides information on how to perform public involvement activities that are required as part of RCRA and describes other techniques beyond the requirements that staff can use to more effectively involve the public in the RCRA permitting process. The manual is scheduled to be distributed in Winter 1993.

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DRAFT STRATEGY PROJECT PLANS

RISK ASSESSMENT

The Agency's draft hazardous waste combustion strategy calls for EPA Regions and States to conduct site-specific risk assessments, including indirect exposure, at incinerator and BIF facilities as part of the permitting process. The purpose of the risk assessment projects is to ensure that these risk assessments are technically sound and that guidance and assistance are provided to ensure that they are conducted in a timely and consistent manner.

There are two major activities under this project. First, EPA will develop guidance material to assist Regions and States in conducting these assessments. This guidance, which is being developed by the Agency's Indirect Exposure work group, will consist primarily of an addendum to the 1990 ORD document "Methodology for Assessing Health Risks Associated with Indirect Exposure to Combustor Emissions." The addendum will update the 1990 ORD document where appropriate and provide additional detail in some areas. In addition, OSW will prepare another document which will provide specific guidance on various implementation issues needed to conduct risk assessments at hazardous waste combustion facilities. These materials are expected to be ready in draft form for review and interim use by the Regions and States by September 1993. External peer review will also be conducted, most likely in the first quarter of FY 1994. EPA is currently assessing other mechanisms to obtain outside input on these materials. Updates to the guidance to reflect external comments and new information will be made in early 1994.

Second, EPA will provide direct assistance to the EPA Regions and States. This will include headquarters response to technical questions and will also include assistance in identifying appropriate contract vehicles and funding sources when needed by the Regions. This process is already underway, and tentative decisions on guidance materials are being provided in response to questions. Contract vehicles have been identified, and assistance in getting access to them is available.

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DRAFT STRATEGY PROJECT PLANS

IMPLEMENTATION

Headquarters incineration experts will be available to assist the Regions and states as they encounter issues and questions in implementing the Combustion Strategy within their programs and at specific sites. Headquarters implementation staff will remain in close contact with Regional permit writers through conference calls and meetings to identify and resolve significant issues. For example, the Implementation Subgroup will take the lead on addressing issues such as how the Combustion Strategy should affect Army chemical demilitarization (nerve agent) incinerators, popping furnaces (explosives incinerators), and mixed (radioactive and hazardous) waste incinerators, and will be looking at how the activities presented in the Combustion Strategy relate to other RCRA permit program activities.

Members of the Implementation Subgroup will provide input to rulemaking activities stemming from the strategy to assure practicality of implementation through the permitting program. Guidance will be developed to clarify (and make improvements to, as appropriate) EPA's policy on trial burn failures. This guidance will be transmitted to the Regional and state permit writers and will be used as a support document in developing amendments to permitting regulations. The written guidance will become available by the time the permitting/public involvement regulatory amendments are proposed in early 1994.

The Implementation Subgroup will also be developing technical support materials to assist the permit writers in using the omnibus permit authority to implement, as necessary to protect human health and the environment, the dioxin and particulate matter controls set forth in the Strategy. This will include areas such as planning trial burns, interpreting trial burn data, and setting permit conditions. Because the Regions and States are faced with immediate needs for planning trial burns and other near-term permitting actions, we expect to be providing informal technical support on an ongoing basis and draft guidance in Fall 1993.

As information comes to light during OSW's rulemaking on technical standards, the Implementation Subgroup will also work with permit writers to assist their efforts with respect to control measures in permits necessary to protect human health and the environment. The Implementation Subgroup will also provide a link between the general risk assessment guidance and technical issues on site-specific risk assessments by working with the Regional permit writers to identify issues and coordinating with OSW risk assessment personnel to develop resolutions. This effort has already begun and will continue on an ongoing basis.

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