

HAZARDOUS WASTE GUIDELINES:  
PLANS AND PROSPECTS

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## HAZARDOUS WASTE GUIDELINES: PLANS AND PROSPECTS

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It is a particular pleasure for me to participate in this conference on land disposal of hazardous waste in the "orientation" portion of the program. For as essential as land deposition is to any future waste management planning, it must be viewed within the overall context of complementary options and alternatives. Thus, from the technical assistance perspective of EPA, the opportunity to communicate with the research community as to the direction of our current guidance/guideline programs is very important.

Not only does it afford us an occasion to assess the match between on-going research efforts and current Agency guidance/guideline plans, but also a chance for dialogue

as to what future gaps need to be filled if effective guidances are to be issued.

The cornerstone of current OSWMP guidance/guidelines programs is the Solid Waste Disposal Act, as amended (SWDA). The critical sections of this Act relative to hazardous waste bear some review as the opportunities for formal guidance in it are several.

Section 212 of the Act was the origin of EPA's now familiar Report to Congress; Disposal of Hazardous Wastes. Submitted to Congress in June 1973, the Report was our first major assessment of the seriousness of the hazardous waste problem. Among its major conclusions were that (1) hazardous waste legislation was a key to

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\*Mr. Kovalick, who is Chief, Guidelines Branch, Hazardous Waste Management Division, in EPA's Office of Solid Waste Management Programs, presented this paper at the Hazardous Waste Research Symposium: Residual Management Land Disposal in Tuscon, Arizona, on February 2, 1976.

solution of the problem of mismanaged wastes and (2) national disposal sites were not a viable waste disposal strategy, given the available fledgling industry in this field. In addition, the President submitted the Hazardous Waste Management Act for consideration by Congress in February 1973, because of the significance of this issue.

Section 204(a) of the SWDA Act carries basic research, demonstration, and training mandates. Much of the health and environmental effects work, disposal operation investigations, materials and energy recovery work, and waste system studies now underway are authorized under this section. Section 204(b) instructs EPA to collect information and make it available through publications and other means, to cooperate with public and private groups, and to make grants. This part of Section 204 is significant to our guidance promulgation efforts, and I shall return to it.

The mandate for guidelines for recovery, collection, separation, and disposal systems is contained in Section 209. Such guidelines under Section 209 (a) are recommended to government agencies at all levels - not just Federal ones. Section 209(b) calls for model codes, ordinances, and statutes as well as issuance of data on costs of constructing, operating, and maintaining technically feasible methods for collection, separation, disposal, recovery, and recycling.

Finally, Section 211 of the SWDA adds some "teeth" to the otherwise advisory guidelines

under Section 209(a), in that all Federal agencies shall ensure compliance with such guidelines issued under that section. You may be familiar with some of the results of such guidelines. For example, the Bureau of Land Management has recognized the EPA Guidelines on Thermal Processing and Land Disposal of Solid Waste (Federal Register, May 14, 1974) as well as the Recommended Procedures for Disposal and Storage of Pesticides and Pesticide Containers (Federal Register, May 1, 1974) (also published by EPA) as the minimum requirements for use of BLM lands for waste disposal.

In summary, the current authorities of interest here are Section 204(b)--the issuance of recommendations --and Sections 209(a) and (b) --guideline issuances and model ordinance drafting, respectively.

Before addressing our plans for hazardous waste guideline development, some definitions and clarifications are in order. First, many of you are familiar with the word "guideline" in the context of Federal Water Pollution Control Act (FWPCA) where "effluent limitation guidelines" (ELG) are to be set in accordance with best practicable or best available technologies. Thus, the ELG for an industry sector is, in reality, an enforceable permit requirement, not just technical advice as is the case with solid waste guidelines. The only persons for whom

solid waste guidelines are mandatory are Federal agencies; for all others, they are advisory. Thus, the word "guideline" has a unique meaning in the solid waste legislation.

A second issue of definition relates to the focus in the FWPCA, as amended, and the Clean Air Act, as amended, (CAA) on performance standards. That is, the standards or goals to be met by a potentially polluting activity should be specified rather than the process or technology to be used. We concur with this approach as it leaves technological options open and encourages development of new techniques.

Finally, one major contrast between the FWPCA and CAA mandates and the approach in solid waste bears review. Both the air and water laws require industry-by-industry standards relating to stationary emissions. That is, specific levels of discharge to the air and water environment are to be set for each industry sub-segment. In contrast to this legally required strategy, those dealing with industrial wastes know that they can be (and often are) shipped to treatment/disposal facilities. In addition, the solid waste statute refers to systems and methods without reference to industry segments. As a result, the current thrust of our guidance/guideline development efforts is on pathways that wastes follow and the systems governing their flow.

What then are our plans to develop guidances and guidelines? For ease of discussion, we have defined the word "guidance" as advice issued by EPA in the Federal Register under the authority of Sec. 204 of the Solid Waste Disposal Act. Such guidance represents the Agency's best technical counsel on an issue related to hazardous waste management systems or pathways; it does not have regulatory status.

Guidelines are advice issued by the Agency in the Federal Register under the authority of Sec. 209. Although only advisory to everyone else, Section 211 makes Sec. 209(a) issuances mandatory for Federal facilities. Again, the guideline represents our best technical advice, but due to its impact on Federal facilities, much more extensive impact analysis and interagency review are necessary than are needed for guidances.

"System operations" guidances refer generally to the flow of wastes from generator to storage, treatment, and ultimate disposal. Potential subject areas are many in number, but those in which the States and others seem most interested at present are waste transport control (through trip-ticketing), wastes compatibility guides, facilities management suggestions, site selection methodology, etc. "Pathway" guidances would provide typical performance specifications for

incinerators, chemical waste landfills, chemical treatment processes. As an example, an incinerator guidance would describe for the person who has chosen incineration as his disposal option, the optimum temperature, dwell time, and turbulence characteristics for the waste type he has selected. Obviously, our recommendation of such minimum levels would be based on test burn experiences with wastes of the same or similar kind from which we had extrapolated.

Our strategy under current legislation has two phases. First, issue system operation and pathway guidances under Section 204 as soon as practicable. This approach allows us (1) to make Federal policy known to a very broad audience (including industry), (2) to address our technical assistance obligations to the States in a priority way, and (3) to signal industry and the States as to our intentions, if stronger Federal authorities should come about.

A second part of our strategy is to simultaneously explore the breadth and extent of the hazardous waste management problem among Federal agencies. To the extent that specific problems are serious enough and have not been addressed through adherence to the guidances, Sec. 209 guidelines could then be issued.

Exhibit I is an interim plan for the issuances of guidances and guidelines under Solid Waste Disposal Act. It describes our schedule for guidance/guideline issuance over the next several fiscal years.

Like all good plans, it is subject to change. It does, however, give a sense as to when we expect the results of several technical studies to be sufficient to issue advice.

Special comment regarding the column marked Recommended Procedures is warranted. Such a procedure will represent our best technical counsel on a very specific problem (such as disposal of wastes contaminated with a certain chemical) or advice on a specific industry stream. The procedures will be notable for their lack of widespread applicability to many waste generators and disposers and/or their very specific focus on single waste streams. Such issuances are contemplated, for example, during FY 76 regarding PCB-contaminated waste and during FY 78 regarding the trade-offs of various treatment methods for some streams in the organic chemical and petroleum refining industries.

Of special interest to this group would be our plan to use the fruits of our chemical waste landfill demonstration project along with other results in FY 79 to address waste-loading limits for landfill sites and chemical waste landfill design.

With the long time frame on this interim plan, the question of future Federal legislative initiatives becomes very relevant. As you may know, the Senate Committee on Public Works has a bill numbered S.2150 which has been the subject of considerable public dialogue for over a year. On December 15, 1975, the House Subcommittee on Transportation and

Commerce issued a staff print of a Solid Waste Utilization Act for public comment. Thus, both Houses of Congress appear to be ready to address the issues of waste management, including hazardous wastes, in specific terms.

The concepts included in both of these legislative initiatives with regard to hazardous waste are very similar. First, there are special sections of these comprehensive drafts devoted to hazardous wastes. Second, the Administrator must define or identify hazardous wastes within certain time frames in the drafts in both Houses. Third, a program for the permitting of the storage, treatment, and disposal is mandated in both drafts; the House version also recognizes generator reporting obligations and the importance of the transportation link to effective management. Both drafts recognize operational technical, institutional, and economic requirements for permit holders through permit conditions.

Additionally, both drafts suggest State implementation of such a permitting effort via approved Federal programs, and outline monetary disincentives in terms of withdrawn Federal grant funds if the States do not assume the program. In the case of the House draft, only funds supporting the implementation of a hazardous waste program would be withdrawn instead of all State implementation money as in S.2150.

Even with this generalized overview, I think you can see the match between our current activities and prospective legislative initiatives. Almost all of the guidances that we have suggested could be translated into decision tools and/or

specifications for Federal or State permit writers.

For that reason, we feel there is much to be gained from the early dialogue that will take place concerning guidance issuances. Not only the research community, but also industry, labor, public interest groups, and the academic community interested in effective hazardous waste management will be better able to focus their effort if Federal policy is clear and an open subject for continuing discussion in the months ahead.

Thank you very much.

## Exhibit I

### Prospective

#### Hazardous Waste Management Federal Register Issuances

	<u>Guidance (Sec. 204)</u>	<u>Recommended Procedure (Sec. 204)</u>	<u>Guideline (Sec. 209)</u>
FY 76	Policy Statement on HW Mgt.	Disposal of PCB-containing Wastes	
	Site Selection Criteria	Disposal of VC-containing Aerosol Cans	
FY 77	Waste Transportation Mgt. (Manifest Systems)		Model State HW Statute (Sec. 209 b)
	Compatability of HW at Disposal Facilities		
	Policy on Use of Public Lands for HW Facilities		
	Mgt. Aspects of HW Facilities (Insurance, Bonding)		
FY 78	Std. Sampling (and Analysis) for HW		
	State HW Mgt. Program- Resource and Organization		

Exhibit I (cont'd)

FY 78 (cont'd)

Definition of HW (including  
Standard Leaching Test)

Reference Method for  
Evaluating Chemically  
Fixed Wastes

PCBTM\* for Organic  
Chemical and Petroleum  
Industries

Incineration Processes  
for HW

FY 79      Determination of Loading  
Limit of Waste Sites

PCBTM\* for Inorganic  
Chemicals and Metals  
Mining and Refining  
Industries

Chemical Waste Landfill  
Design

\* PCBTM = Physical, Chemical, Biological Treatment Methods