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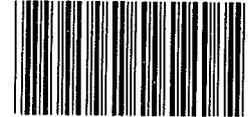
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B-210383

JANUARY 14, 1983

RELEASED

The Honorable Barbara A. Mikulski  
House of Representatives



Dear Ms. Mikulski:

Subject: Information on Three Hazardous and/or Solid  
Waste Disposal Sites in Maryland (GAO/RCED-83-91)

On June 23, 1982, you asked us to consider including three Maryland hazardous and/or solid waste disposal sites in our current work involving the Environmental Protection Agency's (EPA's) implementation of the Resource Conservation and Recovery Act (RCRA). You were concerned about how well EPA was monitoring State regulatory programs under RCRA and thought that the Maryland sites would exemplify the types of problems that are occurring.

In responding to your request by letter dated July 22, 1982, it was agreed that our ongoing work could incorporate your request. Subsequent to our July 22 letter, additional discussions concerning the three sites have been held with your office and it was agreed that we would summarize the results of the work performed. Overall, officials from both EPA and Maryland acknowledged that each site had various past problems, but these officials believe that current site actions are adequate since the three sites, in their opinion, represent a low degree of hazard at this time. We made no independent technical assessments of the three sites. Additionally, our other planned RCRA reviews will address the State monitoring issues raised in your June 23 letter.

OBJECTIVES, SCOPE, AND METHODOLOGY

Our primary objectives were to determine what past problems were presented by the three sites (Monument Street Solid Waste Landfill, American Recovery Treatment and Storage Facility, and Hawkins Point Hazardous Waste Landfill), what actions were taken by EPA and Maryland at those sites, and what is the current status of the sites. To fulfill these objectives, we conducted the review at EPA Region III in Philadelphia, Pennsylvania, and visited State of Maryland offices including the Department of Health and Mental Hygiene (DHMH), Maryland Environmental Service (MES), and the Governor's Office. We discussed the three sites with EPA Region III and Maryland officials to determine what their roles had been and their opinions of the relative hazards posed by these sites.

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We reviewed reports and other records concerning the State's and EPA's involvement at these sites. We also discussed the region's overall priorities.

We spoke with representatives of various public interest groups who have had a continuing involvement with the three sites to obtain their views concerning the sites. These groups included the Chesapeake Bay Foundation, the Curtis Bay Improvement Association, and the Monument Street Improvement Association. We made no independent technical assessments at the sites. Our review was performed in accordance with generally accepted government audit standards.

MARYLAND GRANTED INTERIM AUTHORIZATION UNDER  
RCRA FOR HAZARDOUS WASTE MANAGEMENT PROGRAM

The Congress enacted RCRA to, among other things, regulate the management of hazardous waste and improve waste disposal practices. Subtitle C of the act requires that EPA develop a hazardous waste regulatory system to protect public health and the environment. RCRA also provides that after authorization by EPA, the States are to administer their own hazardous waste programs. RCRA allows the States to obtain interim authorization from EPA while working toward final program authorization.

EPA authorizes State programs in two phases. Under phase I, States may administer hazardous waste programs as long as they include provisions that are substantially equivalent to EPA's regulations concerning identification of hazardous waste; standards for generators and transporters, including the manifest system; and preliminary standards for treatment, storage, and disposal facilities. Phase II allows a State to issue permits for hazardous waste treatment, storage, and disposal facilities as long as its regulations are substantially equivalent to EPA's. As of December 13, 1982, EPA had granted phase I authorization to 35 States, with 7 of these States also obtaining phase II authorization. Maryland was granted phase I interim authorization on July 8, 1981.

PAST PROBLEMS AND PRESENT  
ACTIVITIES AT THE THREE SITES

On May 15, 1982, you presided over a hearing on implementation of Federal hazardous waste legislation in Maryland for the House Subcommittee on Commerce, Transportation, and Tourism, Committee on Energy and Commerce. Much of the hearing focused on the history and problems associated with the Monument Street, American Recovery, and Hawkins Point sites. As it was pointed out during the hearing, poor inspection and enforcement procedures, lack of adequate management controls, illegal dumping, and other problems have occurred. However, during the course of our examination, EPA and Maryland

officials stated that their current activities at these sites are adequate, and in their opinion the sites currently represent a low degree of hazard. A brief description of the history and present situation at each site follows.

#### Monument Street Solid Waste Landfill

The city of Baltimore developed the Monument Street landfill with the DHMH permitting it in June 1971 as a sanitary landfill for bulk wastes. The city operated the site as a public landfill from 1973 to 1979 and for several months thereafter for disposal of municipal incinerator ash.

Illegal dumping of hazardous waste has been traced to the site. According to DHMH's Assistant Secretary of Environmental Programs, one firm may have illegally dumped as many as 1,200 barrels at the site and other illegal dumping activities may have also occurred. However, Maryland and EPA officials believe that various actions taken at the site have shown that the landfill does not present a threat to the health of area residents or to the environment. For example, DHMH, in response to the concerns of area residents, initiated various efforts to determine if the landfill was having an adverse effect on public health or the environment. The efforts included: (1) increasing groundwater testing by utilizing monitoring wells installed around the landfill, (2) testing the leachate collection system to ensure that groundwater was not being contaminated, (3) conducting an air monitoring program at the landfill and adjacent to it, (4) performing a cancer mortality study of the residents in the surrounding community, and (5) providing for additional site inspections.

Although DHMH concluded from these studies that the site did not pose an undue risk to either public health or the environment, citizens wanted the State to do more test borings to determine the hazards of the site. Maryland officials decided and EPA concurred that any benefits derived from exploratory borings within the landfill itself would be outweighed by potential dangers, such as explosions and damage to the site's leachate collection system. DHMH's Assistant Secretary of Environmental Programs stated that in order to quell citizen concern, Maryland hired an independent consulting team from Princeton University to determine if any other site action is needed. This study is partially funded by EPA and is scheduled for completion in February 1983.

EPA Region III officials stated that the site currently poses only a low degree of hazard compared with other sites in Region III. For example, EPA rated the site to determine whether it would be a candidate for remedial cleanup action under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (commonly known as Superfund). Sites are rated on three pathways

of pollution--groundwater, surface water, and air. The Monument Street Landfill scored very low under this rating system compared with the other sites targeted for Superfund remedial action (less than 6; 28.9 was the cutoff for the proposed national priority list of 418 sites announced on Dec. 20, 1982). The EPA Regional Administrator stated that if the Princeton study found any significant problems, EPA would reassess its involvement.

#### American Recovery Treatment and Storage Facility

American Recovery is a treatment and storage facility which accepts and treats various acids, solvents, laboratory wastes, and waste herbicides and pesticides. It is located in Curtis Bay, Maryland. After treatment, some sludges that are still hazardous are placed in a hazardous waste landfill (BFI Landfill - Solley Rd.). Through a National Pollution Discharge Elimination System (NPDES) permit, the company is allowed to discharge nonhazardous wastewater into Curtis Bay.

Groundwater contamination, acceptance of "not properly labeled wastes," and explosions have all occurred at American Recovery. DHMH's Assistant Secretary of Environmental Programs stated that American Recovery's compliance with State laws until recently has been poor. In May 1982 Maryland filed civil actions against American Recovery, including assessing penalties for lack of flood proofing and various operational procedures and an order to construct cement pads for drum storage. Maryland officials now believe that the operator of American Recovery is making adequate progress to correct these problems.

EPA Region III evaluated the site under its dump site and RCRA programs to determine if an imminent and substantial threat to human health existed. Although evidence of groundwater contamination was found, EPA determined that no threat was posed to the local community because area residents used municipal water. In addition, because American Recovery is one of many companies in the heavily industrialized area, EPA Region III officials stated that it would be difficult to attribute the contamination to any single source at this time.

EPA also rated this site using the scoring system developed for the Superfund program. The site scored very low (less than 6) because groundwater was the only pathway of pollution and the residents do not use groundwater for household use.

An additional problem related to the American Recovery site involves its NPDES permit. On September 17, 1982, EPA issued a violation notice to the State of Maryland citing American Recovery's failure to comply with its NPDES permit. Under a State-administered NPDES program, the State is responsible for ensuring that compliance with permit requirements is achieved. If the State fails to take appropriate enforcement action, EPA may then step

in to take such action. Maryland's response to the violation notice was not satisfactory to EPA. On December 16, 1982, State and EPA officials met to discuss the violations. The State believed and EPA concurred that American Recovery needs a new, more comprehensive NPDES permit. Requests for public comments are required to obtain a new permit.

#### Hawkins Point Hazardous Waste Landfill

The Maryland Port Authority (MPA) used chromium slag (an industrial waste of Allied Chemical) as fill material for the Baltimore Harbor. During the early 1960's, MPA entered into a long-term contract (40 years) with Allied Chemical for the use of this material because at the time chromium slag was considered an excellent fill material. When chromium slag was found to be a potentially hazardous substance, MPA began landfilling it at Hawkins Point, now a hazardous waste landfill operated by MES. MPA has since renegotiated the long-term contract to make it responsible for the chromium slag for only the next 5 years.

Additional hazardous waste capacity is needed by Maryland because the area where the chromium slag is being placed at Hawkins Point is approaching design capacity. In addition, the Solley Road landfill, the only general hazardous waste disposal facility in Maryland, closed on December 31, 1982, thus causing a critical shortfall in hazardous waste landfill capacity. After considering the State's disposal needs, Maryland decided to expand the Hawkins Point facility for the following reasons:

- The site is in the political jurisdiction where the largest share of the State's waste is generated, thus reducing transportation risk.
- The Hawkins Point area is heavily industrialized, and further industrial development of the whole area is a goal of local government.
- Portions of the property have a very good clay soil, a necessary attribute for hazardous waste containment. Approximately 120 feet of clay and dense silts lie between the waste area and the top of the uppermost aquifer.
- The population most likely to be affected is currently served by municipal water from a source that would not be affected by any combined failure of engineering, construction, and/or site geology.
- At the time the State started planning for additional hazardous waste capacity, the criteria for allowing an expansion were more applicable than criteria for permitting a new facility because EPA had not promulgated final regulations

for new facilities and existing regulations offered very little guidance for permitting new hazardous waste landfills.

MES anticipates that chromium slag and various inorganic wastes will be disposed of at the Hawkins Point landfill. The chromium slag will be placed in the existing site, which will be expanded to handle another year of disposal. Various types of inorganic wastes will be placed in a new cell, which will reach capacity approximately 12 months after becoming operational.

According to EPA regulations (40 C.F.R. 122.23), expansions of hazardous waste landfill sites must be approved and must meet the following criteria: (1) it must be determined that sufficient treatment, storage, or disposal capacity does not exist at other facilities and (2) the cost must not exceed 50 percent of the capital investment needed to construct a new facility. EPA Region III officials stated that they had had little experience with hazardous waste landfill expansion requests and that headquarters guidance was not clear on this matter. Your June 22, 1982, letter to EPA requested information that helped clarify the expansion request process. On September 15, 1982, EPA approved the expansion believing that the site met the criteria and that construction plans for the site represented a state-of-the-art facility.

During the review we found that Maryland changed the planned new cell's location on the property. DHMH's Director, Waste Management Administration, stated that subsequent to the hearings Maryland determined that the original cell site under construction did not have a good natural clay liner and therefore decided to move the cell. We brought this matter to the attention of EPA Region III officials who were unaware of the change. EPA had not approved the change of the cell location as of January 4, 1983.

#### CURRENT EVALUATIONS OF THE RCRA PROGRAM

We are planning to evaluate two areas of the RCRA program for the Chairman, House Subcommittee on Commerce, Transportation, and Tourism, Committee on Energy and Commerce. The first concerns the extent to which hazardous waste is being disposed of in solid waste landfills and the problems caused by such disposal. The second review will examine various hazardous waste management issues, with special emphasis on inspection and enforcement efforts under RCRA.

Under present RCRA regulations an unknown number of the Nation's small hazardous waste generators may be disposing of their waste at facilities solely designed for solid waste. These facilities are not suited to such disposal since they frequently lack protection against the off-site migration of materials. Our first review will address this issue for the subcommittee.

A key element of the RCRA regulatory program is inspection of hazardous waste facilities and enforcement action when noncompliance is identified. EPA is delegating this responsibility to the States, but EPA continues to maintain an oversight function to ensure that grants to States totaling \$44 million in fiscal year 1983 will assist the States in funding their programs. Our second review will examine the hazardous waste management program at both Federal and State levels.

In addition to addressing the concerns raised by the Chairman, House Subcommittee on Commerce, Transportation, and Tourism, these reviews should provide you with further information on EPA/State regulatory monitoring activities and results. We will provide you copies of both reports upon issuance.

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At your request, we did not obtain agency comments, but the matters covered in the report were discussed with officials from EPA's Region III and Maryland's DHMH. Their views are included in the report where appropriate.

As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of the report until 15 days from the date of its issuance. At that time we will send copies to interested parties and make copies available to others upon request.

Sincerely yours,

  
for J. Dexter Peach  
Director