



Testimony

Before the Subcommittee on Fisheries and Wildlife
Conservation and the Environment, Committee on Merchant Marine and
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WATER POLLUTION

Coordinated Strategy Needed to
Address Radioactive and Toxic
Wastes in the Massachusetts Bay

Statement of
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Mr. Chairman and Members of the Subcommittee:

We are pleased to be here to respond to your request for information on past dumping of radioactive and toxic wastes in the Massachusetts Bay. Although the Environmental Protection Agency (EPA) issued a report in 1984 on the extent and scope of past dumping of radioactive wastes, environmental groups and others assert that the study may have underestimated the extent of these activities. These groups have also raised questions about the extent of previous dumping of nonradioactive, toxic wastes into the Bay. Given these uncertainties and concerns, you asked us to examine (1) the scope of past dumping activities and (2) EPA's currently planned reassessment of this issue.

In summary, Mr. Chairman,

- EPA's 1984 study concluded that dumping of radioactive wastes occurred primarily in one area of Massachusetts Bay, and that these wastes presented no public health risk. However, numerous allegations have been made by environmental groups that EPA's 1984 study did not fully examine areas of the Bay where radioactive wastes may have been dumped. In particular, they allege that statements from local fishermen and the dumper of these wastes, and evidence from a 1991 survey conducted by the International Wildlife Coalition, suggest that radioactive wastes may have been dumped outside of the areas studied by EPA. The 1991 survey also indicates that the dumping of toxic wastes was more extensive than previously believed.
- Although EPA stands by its 1984 study, the agency is planning to conduct another search for radioactive waste containers in the near future after reexamining permits and other documents and interviewing local fishermen and other knowledgeable individuals. However, local environmental groups have raised a number of concerns about the adequacy of these plans, including EPA's basis for determining its search area, the adequacy of EPA's research vessel and equipment, and the timing and duration of the planned search. EPA has taken steps to address many of these issues, but a number of concerns remain.

Mr. Chairman, while we have investigated this matter for a period of only several weeks, it is clear that these controversies involve a number of technical issues where emotions run high and information can be easily misinterpreted. This emotion and confusion have combined to undermine EPA's credibility as it attempts to shed light on an extremely complex and sensitive issue. Accordingly, we believe it may help to ensure the credibility of the agency's future work if it formed a research design team that includes technical experts from other agencies and representatives from local environmental organizations that have investigated this issue. In doing so, EPA will help to ensure that its planned

research will meet its objectives and allay continued doubts about the extent and scope of past dumping activities.

Before I discuss these issues in more depth, let me briefly provide some information on the history of past dumping in the Bay and EPA's efforts to determine its extent and scope.

BACKGROUND

Beginning in the early 1900s, dredged material and toxic wastes were dumped at several sites offshore from Boston in the Massachusetts Bay. Low-level radioactive wastes were also dumped into the Bay as early as 1946. One of the most active sites for some of these wastes, commonly referred to as "the Foul Area," is located in the Stellwagen Basin--currently under consideration for designation as a National Marine Sanctuary--approximately 22 nautical miles east of Boston in waters approximately 130 to 300 feet deep. Today, only dredged material may be dumped at this site.

Because the Foul Area was generally believed to be the primary dumping site for radioactive and toxic wastes, past efforts by EPA and others to determine the extent and scope of dumping activities have focused primarily on this area. For example, EPA's 1984 report on the potential hazards of past dumping of radioactive wastes in the Bay focused on the Foul Area. Similarly, a 1991 survey to assess the potential impact of past dumping activities on whale feeding grounds--conducted with EPA assistance by the International Wildlife Coalition (IWC), an environmental organization--focused on waste containers in the Foul Area and nearby locations.

However, concerns have recently been raised by local environmentalists that there may have been extensive dumping of radioactive wastes outside of the Foul Area. In response, EPA plans to conduct a series of additional surveys over the next several months in other areas of the Bay where these wastes may have been dumped.

EPA's 1984 STUDY ON RADIOACTIVE WASTES

Because of public and congressional concerns about possible adverse effects from earlier disposal of radioactive wastes in the Bay, EPA conducted a study in 1981 and 1982 to determine the extent of past dumping of radioactive wastes and assess potential hazards to the public health. The results of this study were published in a 1984 report.

EPA's review of navigational charts and records from the Atomic Energy Commission--the agency responsible for licensing private companies to package, transport, and dispose of low-level radioactive wastes during the years in question--led EPA to

conclude that four areas in the Massachusetts Bay were authorized as radioactive dumping sites. Furthermore, EPA's review of these records led it to conclude that the Foul Area was the primary dumping site for radioactive wastes.

After EPA identified the potential dumping sites, it asked the National Oceanographic and Atmospheric Administration to conduct sonar searches of the seabed in three of the four areas. These surveys confirmed EPA's belief that the Foul Area was the primary disposal site because they detected many man-made objects there. Conversely, sonar searches of the other two areas provided much less evidence of probable man-made objects. According to a principal member of the EPA survey, the fourth disposal site was not surveyed because of time and resource constraints and EPA's belief that the Foul Area was the primary dumping site for radioactive wastes.

After the sonar searches, EPA conducted an underwater television survey of the Foul Area. This survey revealed a number of concrete objects and debris that EPA concluded were associated with the dumping of radioactive wastes. This survey further supported EPA's assumption that it had found the primary low-level radioactive waste disposal site. However, the study acknowledges that EPA did not positively determine that these containers held radioactive wastes.

On the basis of the sonar searches and the television survey, several samples of sediments and sea organisms were taken in and around the Foul Area to be measured for levels of radioactivity. According to the study, these samples contained no evidence of radioactive contamination within the areas surveyed. In addition, in cooperation with the Food and Drug Administration, EPA studied samples of fish that had been caught near or in the Foul Area. These samples showed levels of radionuclide activity that were at or below the levels normally found in foods. From these results, EPA concluded that past disposal of radioactive wastes in Massachusetts Bay did not result in contamination of the area.

QUESTIONS RAISED ABOUT WHETHER ALL DUMP SITES WERE IDENTIFIED

Environmental groups have raised doubts about the thoroughness of EPA's 1984 study and the soundness of its conclusions. They note, for example, that local fishermen have reported for years that they have been picking up concrete containers outside of the Foul Area. Furthermore, the owner of the company authorized to dump radioactive wastes has indicated that he may have dumped in sites outside those surveyed by EPA.

In addition, IWC's recently completed survey of the Foul Area has raised questions about EPA's 1984 study and the extent of past dumping activities. The IWC survey confirmed EPA's earlier finding

that the Foul Area contains man-made objects. However, it indicated that past dumping was more extensive than previously believed. First, the study identified 10,000 or more barrels that IWC believes contained toxic, nonradioactive wastes. Second, video pictures taken at and near the site did not reveal concrete containers typically used for the disposal of radioactive wastes. The absence of these containers raised speculation that radioactive wastes may have been dumped elsewhere.

A local environmental group--Save the Harbor/Save the Bay--has maintained that EPA inappropriately focused its survey on the Foul Area at the exclusion of other areas where dumping may have occurred. The group maintains that EPA did not pay adequate attention to the statements made by local fishermen and the former dumper that suggest that radioactive wastes may have been dumped in areas other than those studied by EPA.

According to a principal author of the 1984 study, EPA attempted to contact local fishermen, but with no success. He said the agency wrote a letter to the local fishermen's association asking them to report locations where concrete containers have been located, but that organization never responded. The author also maintained that EPA conducted interviews with the former dumper, and that his responses indicated that EPA had looked in the appropriate areas.

CONCERNS ABOUT EPA'S PLANNED SURVEY EFFORT

EPA officials stand by the 1984 study's methodology, findings, and conclusions; however, in response to renewed concerns expressed by local environmental groups, the media, and this subcommittee, EPA has agreed to conduct another survey of the Bay in the near future. Although the details of the survey have not yet been completed, current plans include (1) reexamining dumping permits issued by the Army Corps of Engineers, and other documents, to determine possible past dumping sites for radioactive wastes; (2) interviewing local fishermen to identify areas where concrete containers have been found; (3) meeting with the owner of the company that was authorized to dump the waste to verify where he actually dumped the containers; and (4) on the basis of the above information, conducting a sonar survey of the seabed of the areas most likely to contain low-level radioactive containers to determine if wastes were dumped at sites other than those previously studied by EPA.

Although local environmental groups are pleased that EPA plans to conduct another survey, they and others have raised several concerns about the adequacy of EPA's preliminary plans. First, they maintain that EPA needs to conduct a thorough search of all relevant documents and interview as many knowledgeable individuals to ensure identification of all possible dumping sites. Although EPA's announced plans to review permits and to interview local

fishermen and the former dumper have allayed some concerns, the groups continue to question the thoroughness of EPA's planned efforts.

For example, local environmentalists maintain that, in addition to the Corps' permits, EPA should review classified and unclassified records of the U.S. Armed Services, the Department of Energy, the Nuclear Regulatory Commission, and a local university's atomic laboratory, as well as state and local government records. According to the groups, this type of extensive document search could reveal dumping sites other than those identified in the Corps' permits. EPA officials told us that they have not yet decided which documents, beyond the Corps' permits, they will review.

Other concerns center around the timing and equipment for EPA's planned search. For example, local environmentalists have questioned EPA's original plan to conduct a 3-week survey in December using the agency's research vessel, maintaining that the vessel is too small to be used in the rough seas typical of the winter months. The environmentalists also believe that EPA's plan to conduct the survey within 3 weeks may not allow enough time for surveying all potential dumping sites. However, EPA recently decided to conduct surveys in the spring and summer in addition to the one planned in December.

In addition, an official with the U.S. Geological Survey (USGS) expressed concern to us about the type of sonar equipment EPA will use, maintaining that only sonar that operates at certain frequencies will be useful to detect objects partially buried in bottom sediments. EPA has discussed this issue with USGS, but has not made a final decision regarding the type of sonar it will use.

CONCLUSIONS

In conclusion, Mr. Chairman, EPA has attempted to respond to many of the issues raised in recent weeks regarding the dumping of toxic and radioactive wastes in Massachusetts Bay. However, disagreements over some technical issues remain. Perhaps more important, the emotion and confusion surrounding the issue has cast a cloud of suspicion over these efforts which, if not addressed, could continue to undermine future efforts to resolve this problem.

Accordingly, we believe EPA can help to ensure the credibility of its future work if it forms a research team to help design its planned survey. The team should include representatives from agencies with experience in navigational search techniques and issuing dumping permits, such as the National Oceanic and Atmospheric Administration, USGS, and the Corps of Engineers. Furthermore, to minimize continuing concerns of local environmental organizations, EPA should invite representatives from these groups to serve on the design team. In doing so, we believe EPA would

ensure that it is aware of the range of concerns and will have an opportunity to fully explain the rationale behind its final survey design.

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This concludes my prepared statement. I would be happy to respond to any questions at this time.

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