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The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
Department of Environmental Protection
Bureau of Waste Site Cleanup
One Winter Street, Boston, Massachusetts 02108

Daniel S. Greenbaum
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November 1, 1990

Ms. Mary Sanderson
New Bedford Harbor Project Manager
Environmental Protection Agency
HRS CAN2
J.F.K. Federal Building
Boston, MA 02203

Dear Ms. ~~Sanderson~~ Mary:

The Department is in the process of reviewing the "Draft Final Feasibility Study of Remedial Alternatives for the Estuary and Lower Harbor/Bay, New Bedford Harbor, Volumes I to III," dated August 1990. The DEP's Bureau of Waste Site Cleanup has some preliminary comments about the FS.

The Bureau's preference for the clean up is for a more permanent remedy. The FS Alternative SW-9 is the most permanent remedy of the three site wide alternatives now being considered. The SW-9 Alternative combines both removal and treatment of the highly contaminated sediment, while the other alternatives (SW-7 and SW-8) do not include treatment. Comments about each of the three alternatives are presented below.

Capping Alternative The capping alternative (SW-7) would leave all the contamination in place. The potential for movement of the contamination because of cap failure will always exist. A catastrophic storm event could cause the cap to break apart, although the Department does recognize that the hurricane barrier is intended to provide the harbor with storm protection.

The assumption that the cap will "provide chemical isolation" (FS Vol. III, p 2-11) from the PCBs should be reviewed. The proposed cap is to be made of sand in the FS alternative. The FS, however, cites the 1988 Sturgis and Gunnison Report, and the cap material in that report was "classified as a clay organic silt sediment" (p 14). A sand cap will contain void spaces between the sand grains and little organic matter to adsorb the PCBs that will dissolve into the water. PCB diffusion could occur through a sand cap and could eventually reach the surface water. The breakthrough time, flux rate at steady state, and the time steady

state is reached should be calculated using actual conditions (i.e. sand and PCBs) and not by relying on theoretical calculations or by using other cap materials. The EPA needs to point out the discrepancy between the proposed cap material and the materials used in the cited report. The FS should clearly state that one of the disadvantages of the capping alternative, as compared with the removal of the PCB contaminants from the water column, is that the PCB contaminants could dissolve into the water and diffuse through a sand cap. The Bureau therefore feels the capping alternative should be considered less permanent than the alternatives which include removal.

Dredge No-treatment Alternative The dredge no-treatment alternative (SW-8) would remove the contamination from the estuary and harbor, and place the contamination in a Confined Disposal Facility (CDF). The CDFs are proposed to be un-lined or partially lined. The potential for a more contaminated leachate release is higher for untreated material than treated material.

Dredge Treatment Alternative The dredge and treatment alternative (SW-9) is the most protective of the three alternatives. The removal and treatment of the contaminated sediment would provide the best assurance that the material will not return to contaminate the estuary and harbor.

Operation and Maintenance The FS should contain a more detailed discussion of the Operation and Maintenance (O&M) costs which may be required for all the alternatives, including how much the O+M will cost and the relative likelihood of remedy failure. If these issues are not well understood, the relative uncertainties associated with O&M for the capping and dredging alternatives should be reiterated.

Action Levels As a general comment on the Draft FS the Bureau feels that the term "action level" should be used instead of the term "target clean up levels." The "clean up level of 50 ppm", for example, is misleading, since the locations greater than 50 ppm PCBs that would be dredged would have a lower residual contamination, and have a lower risk from direct contact than that implied by the "50 ppm clean up level." The EPA should use the term "50 ppm action level" instead and then explain, for the appropriate alternatives, the lower anticipated residual levels, once sediment removal is complete.

Other Comments Attached to this letter are some initial comments by the Department's Division of Wetlands and Waterways in the Bureau of Resource Protection, and the Division of Hazardous Waste in the Bureau of Waste Prevention. In finalizing the FS and detailing a proposed plan for the New Bedford Harbor Site, the EPA should consider the following major points, based on the initial comments.

Hazardous Waste concerns:
- Any hazardous wastes (i.e. spent solvents, waste oil) generated during the clean up should not be lumped in with the contaminated sediments.
- The waiver of the ARAR for the CDF liner should demonstrate that the CDF design is effective in minimizing the potential for leachate migration and why the requirements of 310 CMR 30.000 can not be met.
- Since the sewer grit is presently not part of the site, response actions of the sewer grit may require separate permitting and may be required to meet other requirements.
- Any off-site disposal or treatment of contaminated sediments or hazardous waste are subject to the Hazardous Waste Regulations (310 CMR 30.000). The ARARs should only be appropriate within the boundaries of the site.
- The EPA's new Toxicity Characteristic Rule should be relevant to the remediation and any future disposal of contaminated dredge spoils.
- The EPA should address the applicability of the Land Ban Restrictions to the remediation and any future disposal of contaminated dredge spoils.

Wetlands and Waterways concerns:
- The possible interference of dredging or capping on the commercial and recreational boating.
- The minimization of tidal areas used for CDFs.
- The Wetland and Waterways Division agrees that the site TCL of 50 ppm is acceptable, except at certain locations that may require a more thorough clean up.
- The dredging and CDFs should try to meet the performance standard for the Land Under the Ocean found at 310 CMR 10.25.
- The dredging of salt marsh areas should only occur as a last resort, and only if the area is highly contaminated and represents a continuous source of PCBs.
- Detailed plans of the restoration of the salt marsh should be provided.

We appreciate the opportunity to comment on the FS and will provide further comments when the proposed plan is released.

Very truly yours,

Helen Waldorf,
Federal Superfund Coordinator

cc: Roxanne Mayer, OGC
Matt Brock, AGO
John Carrigan, DHW, BWP
Steve Dreeszen, DHW, BWP
Christy Foote-Smith, DWW, BRP
Gary Gonyea, DWW, BRP

The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
Department of Environmental Quality Engineering
Bureau of Waste Prevention
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MEMORANDUM

DEQE
NOW IS
THE DEPARTMENT OF
ENVIRONMENTAL PROTECTION

TO: Helen Waldorf, BWSC - Boston
Paul Craffey, BWSC - Boston

DATE: October 23, 1990

THROUGH: Steven K. Dreeszen, BWP - Boston
Jeffrey Chormann, BWP - Boston

FROM: John A. Carrigan, BWP - Boston

SUBJECT: ARARs: 21C Hazardous Waste Regulations - New Bedford Harbor Superfund Site.

This memorandum summarizes the concerns of the Bureau of Waste Prevention's Division of Hazardous Waste (BWP) regarding the ARARs for the New Bedford Harbor Superfund Site remediation. First, the BWP notes that while Hazardous Waste Regulation 310 CMR 30.801(11) exempts "Any emergency action or remedial action initiated or ordered by the Department or by a court..." from the licensing requirements of 310 CMR 30.800 Licensing Requirements and Procedures there exists no broad exemption from the technical standards required of generators of hazardous waste. The BWP therefore maintains that the management standards for generators are at a minimum appropriate and relevant standards if not applicable regulations for any hazardous waste generated as a result of the remedial activities at New Bedford Harbor. This includes any waste generated in addition to the soil and debris associated with the remediation of the contaminated sediments. Examples of such waste are spent solvents or waste oil generated as a result of equipment maintenance. Such materials we believe should not be lumped in with the contaminated sediments. These materials should be identified under the proper waste code (eg. MA01 for waste oil) and handled as they would be by any other generator of a hazardous waste. In addition, any remedial option that involves the construction of surface impoundments, landfills, or waste piles that contain Hazardous Waste should consider the requirements of 310 CMR 30.610 Surface Impoundments,

310 CMR 30.620 Landfills, and 310 CMR 30.640 Waste Piles as ARARs.

The August 1990 Remedial Measure Study entitled "Feasabilty Study of Additional Site-Wide Remedial Alternatives for the Estuary and Lower Harbor/Bay" in a number of instances states that "To comply with 310 CMR 30.00 the CDFs would need to achieve a minimum permeability standard of 1X10-7 cm/sec. This alternative does not include a liner as part of the CDF construction. Therefore, a waiver of this ARARs may be required." The state should insist that any waiver clearly demonstrate why the chosen design is effective in minimizing the potential for migration of contaminated leachate from the CDFs and why the requirements of 310 CMR 30.00 are not met.

During the meeting on August 15, 1990 in Boston three other issues were raised which the BWP feels need to be addressed in the selection of remedial solutions. FIrst, while the remediation deals principally with the PCBs which drive the health and environmental risk there is also an issue regarding the high concentration of metals to be found in the sediments. I believe some metals exist at or above EP-Tox levels [and EPA's recently promulgated TC Rule]. We are concerned about the potential for future mismanagement of what may be EP-toxic (eg. Characteristic Hazardous Waste) dredge spoils from developmental activities in the Harbor. We believe the issue of future disposal of these materials needs to be addressed in the remediation process. At a minimum institutional controls including financial mechanisms should be in place for assuring the proper disposal of such materials. If provisions for disposal of these materials are not included in the remediation than any future dredge materials found to be Characteristic Hazardous Waste must be disposed of as such and will be subject to all provisions of the Hazardous Waste Regulations including applicable portions of the Land Ban Regulations.

My second concern, is the contaminated "sewer grit" and its possible inclusion in the New Bedford Harbor Superfund Site remediation. If the "sewer grit" meets the definition of a hazardous waste than in order to be subject to ARARs it must be incorporated as part of the federal New Bedford Harbor Superfund Site. If not included as part of the Federal site any future disposal of "sewer grit" within Harbor remediation units would be subject to the requirements of 310 CMR 30.000 and not subject to exemption under the ARARs for the Harbor remediation.

Third, the Department needs to make it clear that any "offsite" disposal or treatment of the contaminated sediments or associated by products (hazardous waste) of such treatment are subject to the Hazardous Waste Regulations. The state should regard ARARs as being appropriate only within the boundaries of the site. It should be noted that the state's Hazardous Waste Regulations 310 CMR 30.370 Special Requirements for Waste Containing PCBs requires PCB wastes to comply with the

requirements of the U.S. Toxic Substance Control Act and the following Hazardous Waste Regulations:

310 CMR 30.001 through 30.009
310 CMR 30.060 through 30.064 - Notification Requirements
310 CMR 30.303 - EPA Identification Number
310 CMR 30.304 - Offering Hazardous Waste for Transportation
310 CMR 30.310 through 30.314 - Manifest Requirements
310 CMR 30.320 through 30.324 - Pre-transport Requirements
310 CMR 30.330 through 30.334 - Record Keeping and Reporting
310 CMR 30.361 - International Shipments
310 CMR 30.750 - Land Disposal Restrictions.

In addition, 310 CMR 30.501(3) Management Standards for All Hazardous Waste Facilities: Applicability exempts PCB contaminated waste (> or = 50 ppm) from the requirements of 310 CMR 30.060 through 30.999 provided the applicable requirements of 310 CMR 30.500 and 30.370 and 30.801 are met. It also requires compliance with the applicable portions of 40 CFR Part 761. However, any sediments found to be EP-Toxic fall entirely within the state's Hazardous Waste Regulations. Since, EPA's new Toxicity Characteristic Rule is scheduled to replace the EP-Toxic test in September 1990 it will be relevant to the remediation and any future disposal of contaminated dredge spoils. The EPA remedial solution should address the applicability of Land Ban Restrictions to the remedial activities including the future disposal of contaminated dredge spoils. EPA promulgated the Final Land Ban Rule in the Friday June 1, 1990 Federal Register Vol.55, no. 106, 22520 - 22720. While the Department has adopted the California List and First Third Rules in its 310 CMR 30.750 Land Disposal Restrictions the Second and Third Third Rules have not yet been adopted and are being enforced at the Federal level (eg.EPA's RCRA program).

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Department of Environmental Protection
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Boston, Massachusetts 02108

Daniel S. Greenbaum
Commissioner

MEMORANDUM

TO: Helen Waldorf, BWSC

FROM: Christy Foote-Smith, Director, DWW

DATE: October 24, 1990

SUBJECT: Comments on New Bedford Harbor Feasibility Study

The Division of Wetlands and Waterways has completed a review of the draft final Feasibility Study of Remedial Alternatives for the Estuary and Lower Harbor/Bay, New Bedford Harbor, Massachusetts. Based on this review, the Wetlands Protection (WP) and the Waterways Regulation Programs (WRP) offer the following general comments.

The responsibility of the WRP is to protect the public's property rights as well as exercise certain regulatory controls in tidelands, former tidelands, great ponds, and rivers of the Commonwealth. The WRP review process accomplishes this by insuring that proposed projects do not unreasonably interfere with navigation, that they are structurally sound, that they provide public purposes and do not significantly interfere with public rights or the rights of adjacent property owners, and that they will not adversely affect public resources. If any detriments occur, the WRP requires the project to provide adequate water-related public benefits to outweigh such detriments. These provisions should be incorporated into the design and construction of the facilities proposed for the clean up.

Briefly, during the dredging operation and possible capping operation interference with both commercial and recreational boating should be minimized. Commercial boating impacts would occur in the inner and outer harbor, and some recreational boating impacts above the Coggshell Bridge. With the potential capping option, this would limit the amount of available draft, which in turn may impact the integrity of the cap with boats going over it.

The construction of the CDF(s) may also pose a navigation problem by reducing areas of navigable waters. WRP would like to see a

minimal amount of tidal area used for the construction of the CDF. This may be accomplished by using one site and increasing the height of the CDF. The CDF should be designed so as not to 1) cause or contribute to water stagnancy, 2) reduce flushing of waterbodies, and 3) cause or contribute to sedimentation or erosion problems in resource areas.

Wetlands Protection Program comments on the New Bedford Harbor Draft Final Feasibility Study (FS) are as follows.

Volumes I and II of the FS focus on six alternatives developed by the consultants. Volume III is an assessment of three additional alternatives developed by the EPA called site-wide alternatives. In addition to being less costly, the three site-wide alternatives propose to achieve a target clean-up level (TCL) of 50 ppm of PCB, as opposed to a TCL of 10 ppm recommended by the consultants. A TCL of 10 ppm is simply neither cost-effective nor feasible considering the extent of contamination at the site and 50 ppm falls within the EPA risk range. Risk assessment models within the report conclude that there is no significant difference to marine fish, crustaceans and mollusks between 10 ppm and 50 ppm. The Division agrees that a TCL of 50 ppm is acceptable.

All three alternatives propose to dredge and store contaminated sediments. They vary in the extent of dredging and location of the confined disposal facilities (CDF). Since all three propose to dredge, it is appropriate to try and meet the performance standards for Land Under the Ocean found at 310 CMR 10.25. Specifically, the dredging should not result in altering the bottom topography to the extent that storm damage is increased or erosion of nearshore areas is increased. Furthermore, the operation should try to avoid those areas where eelgrass or widgeon grass is present or where the area has a high density of polychaetes, mollusks or macrophytic algae.

Portions of the lower harbor fall within a Designated Port Area, from Marsh Island south to the hurricane barrier. It appears that the project would meet the performance standards for this resource area found at 310 CMR 10.26.

All three alternatives also include the construction of CDFs which are essentially landfills composed of contaminated sediment. Each alternative includes the construction of one or more CDFs, depending on the amount of dredged sediment. After a review of the maps and an on-site inspection, it appears that all of the CDFs will be located within the nearshore areas of the estuary including fringing salt marsh areas and some bordering vegetated wetlands. Thus, the construction, operation and maintenance of these CDFs requires compliance with the performance standards for Land Under the Ocean, salt marsh and bordering vegetated wetlands. Salt marshes are the most

stringently protected wetland resource area and the performance standards essentially require no alteration. It appears unlikely that the project will be able to met this standard if it proceeds as proposed. The Division recommends that alternative locations be considered for the CDFs, especially since the FS has concluded that even the most contaminated salt marshes are still viable and functioning.

One of the CDFs (CDF 1a) appears to be located partially within a bordering vegetated wetland (BVW), composed primarily of Phragmites sp. State wetlands regulations only allow alteration of up to 5,000 square feet of BVW, unless a variance is granted. The variance provisions requires mitigation of wetland resources. A replicated wetland could be constructed within this area and thus the standard could be met.

As part of the dredging operations, 3 acres of heavily contaminated salt marsh are proposed to be excavated. Clearly this action would not meet the performance standards set forth in 310 CMR 10.32. Although the FS concludes that this area remains viable, EPA has concluded that remediation is appropriate. The Division agrees that allowing the area to remain constitutes a continuing source of contamination and thus is not reasonable. If the contamination is allowed to remain, it will continue to bioaccumulate in the biota and represents a long term risk. The Division recommends, however, that dredging of salt marsh areas only occur as a last resort and only if the area is highly contaminated and represents a continuing source of PCBs.

The FS study implies that funds are available for saltmarsh replication, but without further details regarding restoration efforts, it is impossible to evaluate these plans. In the northeast replication of salt marshes have been marginally successful due to a variety of factors including: improper site conditions, tidal elevation requirements of the salt marsh plant species and insufficient project design and oversight. If relocating the CDFs is not feasible, the Division recommends that salt marsh areas impacted be minimized to the greatest extent possible.

cc: Steve Pearlman, DWW
David Slagle, DWW
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