RETURN TO 1998 ROD AR INDEX

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The Commonwealth of Massachusetts

Executive Office of Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02202

COASTAL ZONE MANAGEMENT

New Bedford 5.3 Estuary

Acft Bay Comm. Doc. #20

July 13, 1992

Ms. Gayle Garman
U.S. EPA Waste Management Division
JFK Building
Boston, MA 02203

Dear Ms. Garman:

Thank you for the opportunity to review and comment on the Proposed Remedial Action Plan (PRAP), January 1992, and the Addendum Proposed Plan, May 1992 for the Estuary, Lower Harbor and Upper Buzzards Bay, New Bedford Harbor Superfund Site, New Bedford, Massachusetts.

The Massachusetts Coastal Zone Management (MCZM) Office offers the following general comments. Specific comments for each section are also included.

- **INADEQUACY OF THE 50 PPM LIMIT**

MCZM does not concur that the Target Cleanup Level (TCL) for polychlorinated biphenyls (PCBs) of 50 parts per million (ppm) are protective of either human health or the environment. It is difficult to accept the justification in the Feasibility Study and the PRAP, Jan. 1992 of the TCL of 50 ppm. Even if the projected levels remaining are 10 ppm in areas where cleanup occurs, there are still large areas within the Harbor that are between 10 and 50 ppm (Feasibility Study, 1990). Moreover, the risk assessment for carcinogenic public health risks for ingestion of contaminated biota (p.8, Addendum, May 1992) indicates a lifetime risk of between 7 in 100 to 2.4 in 10,000 which are higher than the generally accepted 1 in 100,000 or 1 in a million. Similarly the ecosystem risk is high unless PCB values are below 1 ppm (Long and Chapman, 1992). Other specific concerns are listed below:

a) The upper estuary is closed to shellfishing (i.e., clams) because of fecal coliform contamination levels in the water, not PCB contamination. In fact the Massachusetts Division of Marine Fisheries has in the past allowed shellfisherman to harvest quahogs in New Bedford upper harbor and relay them to unpolluted waters to depurate coliforms to allow the quahogs to be sold at market. We

SDMS DocID 53664

believe there will be a greater human health risk to these shellfisherman that come in contact with sediments if a 50 ppm clean up level is enacted. All areas where there is potential for shellfishing should have a TCL of 1 ppm.

b) Whenever recreational and commercial boaters anchor in the upper harbor, they have the potential of coming into contact with contaminated sediments clinging to the anchor and anchor chain. We believe there will be a greater human health risk to the boaters with a 50 ppm TCL.

c) The Buzzards Bay Project is initiating herring restoration projects around Buzzards Bay. The Acushnet River once had a significant herring run to the New Bedford Reservoir and beyond. Today, because of obstacles in the river and the lack of fish ladders few herring make it to the reservoir, (although some citizen groups have recently begun assisting herring migration in Buzzards Bay). The Buzzards Bay Project has initiated discussion with Acushnet town officials about improving the herring migration up the Acushnet River. Since herring migrating upstream are often collected for human consumption, and because fish with high oil content like herring rapidly accumulate PCBs, consumption of herring migrating up the Acushnet River estuary could pose a human health risk, especially if concentrations up to 50 ppm PCBs are allowed to remain in the sediments.

d) Juvenile herring migrating down the Acushnet River and those juvenile herring that migrate along the coast and spend time in the upper harbor can be expected to accumulate PCBs. Herring are a very important food source for many species and one of the primary food sources for terns. Brain tissue of dead terns found on West Island showed exceptionally high PCB concentrations. Bird Island, Marion is the site of the largest tern colony in North America of the Roseate tern, a U.S. endangered species. Contamination of their principal food source by PCBs is a potential threat to this population. Moreover, the U.S. Fish and Wildlife Service will soon attempt to establish a new Roseate tern colony on Ram Island, Mattapoisett. Failure to reduce PCBs in the upper harbor to a protective level could pose a threat to the success U.S. Fish and Wildlife Service effort.

e) Juvenile and adult bluefish and striped bass may spend time in the lower harbor. Although the specific pathway is not known, i.e., food or water column, a TCL of 50 ppm will not reduce PCB levels adequately.

f) Illegal fishing is common in the upper harbor, despite signs and warnings, and some of this fish is consumed. This occurs in part because of language and educational barriers to New Bedford's large immigrant population.

- **CLEANUP OF WETLANDS**

The PRAP, January 1992 proposes to clean up the wetland areas to 500 ppm with long-term monitoring of the marsh areas to determine the effectiveness of remedial alternatives (p.16, PRAP, January 1992). MCZM recommends these additional steps prior to making a decision:

a) Consultation with wetland specialists, biogeochemists and appropriate scientists (1) to develop criteria for making the decision, (2) to approve an appropriate monitoring plan that will meet the expectations of determining effectiveness of marshes serving as a sink and not a source if a 500 ppm PCB level is used and (3) a process for using information to conduct further remedial actions, if necessary.

b) A detailed mitigation plan that protects the saltmarsh from erosion during and after remediation. This should include restoration of the mud flat areas where there are high PCB concentrations.

- **MONITORING TO DETERMINE EFFECTIVENESS OF MITIGATION**

One of the major handicaps in developing an adequate ecosystem risk assessment has been the lack of data regarding PCB levels in tissues of indigenous species found in the Superfund areas (including area III) with a few exceptions. A recent National Oceanic and Atmospheric Administration report on PCB level in organisms had almost no data from the New Bedford area, despite the millions of dollars that has been spent on feasibility studies. Therefore, MCZM is recommending that prior to any remediation effort a monitoring program be undertaken to develop a pre-remediation baseline that describes current conditions and will provide information for determining significant (sensu statistical) differences when compared to post-remediation conditions. From MCZM's experience with developing an Outfall Monitoring Program for the Massachusetts Water Resources Authority, this will take at least a year to plan and should include scientists with knowledge and expertise in monitoring, PCB congener specific impacts, and PCB accumulation by marine organisms.

Monitoring seafood for human health risk assessment, not just for cancer but neurological and reproductive risks as well, should also be part of the monitoring program. The MCZM believes monitoring should be conducted bay wide on flounder and lobsters. Because these species migrate, and there is the possibility of animals that

have spent time in New Bedford harbor may be caught elsewhere, it is important to verify that seafood species outside the superfund area are indeed safe for human consumption. Some monitoring of herring roe (egg masses) should also be conducted since roe is sold at local markets. This monitoring is vitally important if EPA is to demonstrate that the millions of dollars spent on remediation is actually reducing PCB levels in commercial and recreational species in the Bay.

- **OTHER CHEMICALS OF CONCERN**

The New Bedford Superfund area has high levels of polynuclear aromatic hydrocarbons, trace metals, e.g., copper, lead, chromium and nickel, and detectable levels of polychlorinated dibenzofurans (PCFDs). PCFDs have higher toxicity at low concentration levels. Similarly PAH and trace metals are of concern at concentrations found in some areas of New Bedford. Cleanup efforts should make provisions for cleaning up areas where high concentrations of other contaminants pose an ecological or human health risk.

- **CDF SITES**

MCZM generally does not support filling in subtidal or nearshore areas to create upland spaces. However, it does view this New Bedford Superfund project as a unique situation. The Record of Decision will need to balance remediation issues, destruction of PCBs, creation of confined disposal facilities (CDFs) and leaving high concentrations of PCBs in-place sediments. As we have noted above, MCZM places high priority on remediation to lower levels than the preferred TCL of the PRAP, January 1992. We may accept the consequences of filling in tidal wetlands as an appropriate remedial action in this very special case.

The construction and selection of CDF sites should incorporate goals of the New Bedford-Fairhaven harbor planning effort. The CDFs could be constructed and placed in a way to provide additional public access, boat ramps, dock space and mooring areas, and expansion of other water dependent uses and be consistent to the extent possible with the Chapter 91 regulations.

MCZM has been working with the City of New Bedford and the Town of Fairhaven to develop a Comprehensive Harbor Plan. The planning process that has been undertaken involves a great deal of public participation. A Master Plan Harbor Committee, which consists of municipal officials and residents of both the City and the Town, play the leading role in directing a consultant to draft a plan that adequately depicts a vision of the harbor that the Committee desires in the future. The planning process is dynamic and will lay the framework of goals and policies, which address the environmental and cultural pressures of the Harbor, now and in the future.

Because the harbor plan deals essentially with uses of the waterfront it is imperative that the location of the Confined Disposal Facilities (CDFs) be coordinated with this Committee or a body which represents the users of the harbor.

In the draft documents submitted to the Committee and MCZM, by the consultant, there are several locations where filling and bulkheading of the waterfront has been proposed. These recommendations stem from an overwhelming request from the fishing community for additional space for dockage of the fleet, particularly at the New Bedford's piers.

EPA should be working with the City and Town to find locations for the CDFs, which accommodate the needs of those that use the Harbor. Locations for the CDFs should benefit the users of the Harbor, rather than merely take up space. The CDF locations should correlate with increased accessibility to the waterfront, especially for the fishing fleet, some of whom have been dramatically effected by the contamination of the Harbor. The current proposed locations do not appear to have incorporated any input from the harbor planning process.

It is MCZM's understanding that the dredging of the Estuary/Lower Bay/Bay will also be ongoing over the next several years. Because there has been little communication between the municipalities and EPA on the best mutually beneficial locations for the CDFs, we suggest that no irreversible decisions be made at this time on these locations. We also suggest that a mechanism be put in place that will facilitate the best possible locations for the CDFs, which includes input from those parties which be left to work in the Harbor once the clean-up is complete.

- **COMMENTS ON THE ADDENDUM**

MCZM is pleased that the USEPA responded to requests from the Commonwealth and NOAA and included additional cleanup to a TCL of 10 ppm in the upper estuary and outer harbor areas as noted in the Addendum, May 1992. There will be a need for delineating the areas to be remediated with additional sediment sampling. We recommend that areas delineated err on the side of protectiveness, i.e., include adjacent sediments of 1 ppm as part of the areas. We recognize that the cost of cleaning up all of area III to p 1 ppm is prohibitively expensive, but in areas where remediation will be occurring we believe this is appropriate.

There are other issues which we request the USEPA include in the Record of Decision.

- **OTHER POTENTIALLY CONTAMINATED SITES**

Although the data have not met the requirements for quality control, we request that sites which may have levels of PCBs that

may pose potential risk to the ecosystem or humans, should be resampled and remediated as appropriate.

MCZM is particularly concerned about the lack of inclusion of Clarks Cove and Apponagansett Bay that may have sites where PCB concentrations are greater than 10 ppm. Clarks Cove was recently opened to shellfishing for the first time in 100 years. Unpublished data on *Mya arenaria* suggest bioaccumulation to high levels (Capuzzo and Farrington, pers. comm.) Areas with sediments greater than 10 ppm could pose a greater health risk to the shellfisherman coming in contact to these sediments.

- **CAPPING ISSUES**

Through the New Bedford facilities planning process, the New Bedford sewage treatment facility outfall is being considered to be moved further out into Buzzards Bay. If this does not occur, however, adding 6 feet of capping material around the outfall may be impractical unless infilling and blockage of the outfall pipe can be assured. If this is not the case, then dredging of this site (as in Bay-2 alternative) may be the most practical solution. MCZM would recommend dredging rather than capping around the outfall, but would recommend a more thorough study of the engineering and physical oceanography prior to a final design decision.

The PRAP Addendum assumes that upland materials would be used for capping purposes. MCZM recommends that clean marine sediments be used as is appropriate for state regulations and as available. There are a number of dredging projects, several with clean sediments that are suitable for capping, which may be appropriate for consideration of any capping efforts in the remediation of the superfund site.

- **OTHER ISSUES**

There are reports of disposal at upland sites near the Cornell Dubilier Electronics facility. EPA documents indicate that a very substantial amount of PCBs were buried at the Cornell-Dubilier site, less than 200 m from the estuary, yet this issue does not appear to have been addressed. Although PCBs were mined immediately under the site, surrounding contaminated groundwater was not treated. Through groundwater migration and possible infiltration into stormwater and sewer lines, this site may remain as a chronic source of contamination to the outer harbor and Buzzards Bay. Was this PCB contamination considered in the clean-up strategy?

Similarly, along the backside of the New Bedford hurricane barrier lies a drainage canal that is 20-40 feet wide an extends from Cornell-Dubilier to the upper estuary, a length of about a mile.

The upper portion of this canal floods with each high tide, and during spring tides, floods nearly to the Cornell-Dubilier site. In addition this site probably receives groundwater inputs and stormwater flowage. Because the canal may have received groundwater from the Cornell-Dubilier site and sediments from the lower harbor, it is very likely the drainage canal sediments are contaminated with moderately high levels PCBs. Has EPA collected PCBs in the sediments of this drainage canal? Since the hurricane barrier drainage canal is not fenced off and dogs and children have been observed crossing it, it therefore represents a human health risk.

Sincerely yours,

Jeffrey Benoit, Director

JP:jp

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