

The Commonwealth of Massachusetts  
Executive Office of Environmental Affairs  
Department of Environmental Quality Engineering  
Bureau of Waste Site Cleanup  
- One Winter Street, Boston, Mass. 02108

Daniel S. Greenbaum  
Commissioner

August 22, 1989

Frank Ciavattieri  
New Bedford Harbor Project Manager  
US EPA Region I  
John F. Kennedy Bldg.  
Boston, MA 02108

Re: Comments on AVX's Proposed  
Remedial Action Plan

Dear Mr. Ciavattieri:

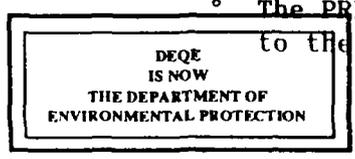
Last October Malcolm Spaulding of the University of Rhode Island presented AVX's proposed remedial action plan for the New Bedford Harbor Federal Superfund site. Over the last 9 months we met with your staff, AVX and its consultants several times to discuss this proposal. We also attended a community work group meeting on July 10 where a capping proposal was discussed by AVX and its representatives. This letter contains our comments on the AVX proposal and our view of how this proposal should fit into the overall evaluation of alternatives for the New Bedford Harbor site.

The remedial action plan proposed by AVX includes the following:

- Construct hydraulic controls at the Coggeshall Street Bridge and control flows and water levels in the Acushnet Estuary.
- CAP upper estuary sediments, including the hot spot, with a geotextile fabric and off-site materials.
- Use gravel and stone erosion protection for the hot spot area.

AVX presented the advantages of its proposal as:

- No dredging would occur.
- Cap placement could occur partly in the "dry" state using the dam and other hydraulic controls in the estuary.
- Economics.
- The PRP's have presented this as a "comprehensive solution" to the Harbor contamination.



I would like to emphasize that, in reviewing this or any other remedial action proposal, and making a final decision, the standards of GLC21E must be met. To be considered a permanent solution, a final remedial response action must be "a measure or combination of measures that, at a minimum, will ensure the attainment of a level of control of each identified substance of concern at the disposal site or in the surrounding environment such that no such substance of concern will present a significant or otherwise unacceptable risk of damage to health, safety, public welfare, or the environment during any foreseeable period to time." (M.G.L.c.21E, §3A(g)). From the Commonwealth's point of view, this alternative prepared by AVX must be subjected to an analysis which includes a characterization of risk of harm to human health and the environment by comparing current and reasonably foreseeable exposure and analysis of total site cancer and non-cancer risks. Total site risk, for example, must be compared with a one in 100,000 excess cancer risk level.

Because significant amounts and concentrations of contaminants would be left in place, we believe it will be very difficult to demonstrate that a cap in hot spot areas will reduce these risks to an acceptable level for any foreseeable period of time. Capping has not been demonstrated by AVX to be consistent with either a permanent or a temporary solution based on the total risk posed by this disposal site. Using the criteria contained in the MCP, the AVX proposal for the "Hot Spot" appears to be inconsistent with either temporary or permanent solution for the following reasons:

1. AVX has not demonstrated to the Department's satisfaction that the highly concentrated PCBs will not migrate vertically in solution through the relatively permeable capping material or horizontally to uncapped areas via diffusion and induced diffusion in a tidal, underwater environment. The project proponents have failed to demonstrate that the capping proposal would isolate the public from future exposure to significant risk in a relatively short period of time. Diffusion of PCBs into the water column and absorption of contamination onto cap material and less contaminated sediments in the uncapped portions of estuary and lower harbor and Bay appears to provide a migration pathway which could cause exposure in the future.

2. We have not been persuaded that there are any institutional controls that make this a permanent solution. To be a temporary solution, the alternative must be consistent with a permanent solution and positive and enterprising steps to develop a permanent solution must be taken. Neither effective institutional controls nor a proposal for enterprising steps to develop a permanent solution for the disposal site have been presented in the capping proposal. Because the capping proposal does not appear to meet the standards for permanency set forth in M.G.L.c.21E, the MCP, it is not a "comprehensive solution".

3. If the cap slumps, breeches, or erodes, highly concentrated levels of PCBs will be exposed. Relatively uncontaminated material such as uncapped sediments and the cap material could be recontaminated. A breach in the cap over the hot spot would present a public health risk of two excess cancer risks in a population of 100 persons. (Source: EPA Risk Assessment, Feasibility Study)

4. The proposed cap in the AVX proposal is 45cm thick. The Commonwealth is not persuaded that a barrier of only one and one half feet of highly permeable material is sufficient to provide a margin of safety for the protection of public health and the environment.

5. The levels of residual contamination left in place in the hot spot are so elevated that there is no demonstrable chance that the process of biodegradation of PCBs could occur within a foreseeable period of time. The technical information reviewed by the Department to date for this site and other sites containing PCB contamination have shown biodegradation to be effective only on much lower concentrations of contaminants.

6. The reliability of a submerged or partially submerged cap placed over contamination of the magnitude found in the "hot spot" has not been established. Reliability has, however, been shown for capping low level contaminants. Both the Seattle, (Duwamish) and Rotterdam projects, were used as examples in the AVX proposal, but they were implemented on relatively low level PCB and pesticide contaminants.

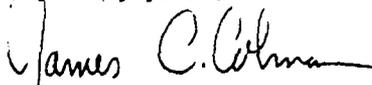
7. The AVX proposal may require extensive treatment of marine water, river water and combined sewer overflows which will accumulate behind the bridge during implementation of the capping remedy. The scope of the PRP's proposal, including the quoted cost, did not include the required water treatment to prevent highly concentrated contaminants from being released during the implementation of the proposed remedy. The proposal contains no measures to meet water quality standards and to treat water.

8. One drawback of the capping alternative is the possibility of increased contamination during placement. The impact of "dumping" material on top of highly concentrated PCBs in sediments has not been adequately addressed in the proposal. The cap material will become contaminated by the highly concentrated PCBs in the hot spot creating a greater volume of contamination to deal with if the remedy fails.

Although we are not persuaded that a capping alternative will comply with state permanency standards, in general, we support further evaluation of the AVX proposal. This alternative should be evaluated alongside other Remedial Response Alternatives in the PS for the future operable unit planned for the upper estuary and lower harbor and bay portions of the superfund site.

Thank you for the opportunity to comment on the AVX proposal. I look forward to future meetings with you on this subject.

Very truly yours,

  
James C. Colman  
Assistant Commissioner

cc: Commissioner Daniel Greenbaum  
Deputy Commissioners: Thomas Powers and  
Kenneth Hagg  
Regional Environmental Engineer: Gil Joly  
Deputy Regional Environmental Engineer, Robert Donovan  
Assistant Deputy Commissioner, Linda Benevides