



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J. F. KENNEDY FEDERAL BUILDING BOSTON MASSACHUSETTS 02203

4.1
54989

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| Site: | New Bedford |
| Break: | 4.1 |
| Other: | 54989 |

January 22, 1986

Mr. William Bonneau
 U.S. Army Corps of Engineers
 MROED-E
 6014 U.S. Post Office and Court House
 Omaha, Nebraska 68102

Dear Will:

As per our recent agreement, EPA Region I has solicited two third-party reviews of the contaminant migration studies being proposed by the Corps of Engineers as part of their Engineering Feasibility Study for the Acushnet River Estuary. Dr. John Paul of EPA's Narragansett Laboratory, who has acted as EPA's technical expert on the modeling phases of the New Bedford study, and Dr. William Grant of Woods Hole Oceanographic Institution, who has served as a consultant to the Battelle modeling study and who has completed extensive hydrodynamic studies within the New Bedford Harbor system, completed the reviews. The reviews focused on the relationship of the Corps' proposed modeling studies to (1) the overall New Bedford remedial program, (2) the modeling study being conducted by Battelle and (3) the Corps' Engineering Feasibility Study. The purpose of this letter is to present EPA's recommended course of action based on the input received from the third-party reviewers in a meeting held recently.

The basic premise of the modified approach is that the Corps of Engineers will limit their modeling effort to a comparative evaluation of the relative contaminant release from various dredging options, with and without optional control mechanisms. Although it is understood that field observations of existing conditions will have to be considered for model calibration, the 2-dimensional model should not be extended to the prediction of an average annual release of PCB's to the lower harbor either under a no-action (baseline) condition or a post-dredging scenario. Baseline conditions for comparing dredging impacts should be developed from the three proposed field studies of contaminant transport through the Coggeshall Street Bridge. In addition, the use of the model to predict the fate and transport of released contaminants should not progress beyond the Coggeshall Street Bridge. EPA understands that an extension of the hydrodynamic and sediment transport model to the hurricane barrier is necessary to establish meaningful boundary conditions. However, the model application should not actively pursue a quantification of the distribution and fate of the contaminants once released from under the bridge.

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In developing this recommended course of action, EPA attempted to minimize any potential duplication of modeling efforts and results. As such, the decision was made that the Battelle model will be used for the quantitative prediction of contaminant migration under the no-action and post-dredging scenarios. This decision is consistent with the originally intended use of the Battelle model both to predict the effects of remedial actions throughout the Estuary/Harbor/Bay System, and to provide direct input (on a PCB isomer basis) to the food chain model. The only alternative approach that would eliminate a duplication of efforts would be for the Corps' 2-dimensional model to establish upstream boundary conditions for the Battelle model at the Coggeshall Street Bridge. This has been determined to be infeasible due to the inconsistency of approaches (PCB aroclors vs. isomers) and the lack of consideration of the non-conservative behavior of PCB's in the Corps' model.

A related issue is the need for additional field data collection efforts to support both of the modeling studies. EPA proposes that the Corps of Engineers proceed with the three field surveys for purposes of quantifying PCB release from the upper harbor. However, EPA would like to utilize Woods Hole for all other data collection activities related to the hydrodynamic studies. This decision reflects Woods Hole's ongoing field efforts in support of Battelle's modeling work, and accounts for the cost-effectiveness of using a local organization, the immediate availability of staff and state-of-the-art monitoring equipment, and the overall expertise of Woods Hole personnel on the hydrodynamic characteristics of the New Bedford Harbor system and the resultant efficiencies in formulating a meaningful data collection program. Woods Hole will develop a proposal for this work in the near future, and a copy will be forwarded to the Corps of Engineers for their review and input. This process should ensure that the data needs of all parties will be satisfied by the Woods Hole data collection effort.

EPA feels that this recommended course of action offers a responsive compromise to the proposed initiation of concurrent modeling studies and to the potential problems of any duplicative efforts. This approach is not inconsistent with the underlying purpose of the Corps' contaminant migration studies, and does not jeopardize the decision process and ongoing litigation that will eventually utilize the combined modeling results. I would appreciate your response to these recommendations and hope to resolve these issues in the near future. In addition, I would like to request that the Corps of Engineers reevaluate the estimated cost of Task 4 of the Engineering Feasibility Study in relation to the proposed reduction in the scope of work. Please note that other elements of Task 4 not addressed in this letter are being retained as part of the Corps' overall study. If you have any questions or if you would like clarification, please feel free to call me at (617) 223-1951.

Sincerely,

Jackie Prince

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