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REMEDATION GOAL OPTIONS FOR DEEP SEDIMENTS UNDERLYING BERNARD BAYOU
AND BRICKYARD BAYOU NCBC GULFPORT MS
3/26/2002
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY



STATE OF MISSISSIPPI
DAVID RONALD MUSGROVE, GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

26 March 2002

Art Conrad
Naval Facilities Engineering Command
Southern Division
2155 Eagle Drive
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Re: Remediation Goal Options for Deep Sediments Underlying Bernard Bayou and Brickyard Bayou, Naval Construction Battalion Center Gulfport, Technical Memorandum, March 2002.

The Mississippi Office of Pollution Control has reviewed the above referenced document in conjunction with parts of the Focused Feasibility Study for Site 8 (FFS, December 2001) and the Proposed Plan for Site 8 (PP, November 2001). Comment letters concerning the latter two documents have been forwarded. The following comments and suggestions concerning remedial goal options for off base sediments (Area 3) pertain to the above referenced documents.

The RGO of 102 ppb was shown for the Occupational Worker exposed to on base sediments in the Human Health Risk Assessment dated March 2000, although a RGO was not given for off base sediments (Table 3-14, page 3-44). The RGO of 102 was reproduced in the Proposed Plan (page 13, paragraph 3) and in the FFS (Table 2-3, page 2-8) as the risk based cleanup number for sediments in Area 3, although the origin of the value was unclear. This Technical Memorandum was submitted in response to a request by OPC for further characterization of off base sediments described in reports as Area 3.

1. The Technical Memorandum addresses remedial goal options (RGOs) for off base sediments. An additional risk characterization of this medium was necessary to evaluate areas included as Area 3 on Figure 2-1 of the FFS and Figure 1B of the Proposed Plan for Site 8. These maps show three rectangular areas labeled as Area 3 extending a significant distance from the main stream channels. The associated text discussions consistently refer to the sediments of Area 3 as deep channel sediments, although the maps show Area 3 to extend away from the main channel into adjoining swampy and shallow water areas.

A risk based cleanup level (RGO) of 102 ppb was proposed (in both the Proposed Plan and FFS) for those areas contained within Area 3 (on Figures 2-1 and 1B of FFS and Proposed Plan, respectively) containing deep water sediments. The figures should accurately show the locations of these deep water sediments, and the approximate water depth along that particular stream segment. The maps should also show dioxin concentrations observed in these areas instead of referring the reader to concentration maps for these areas reproduced in other documents (figures 3-4 and 3-5, Surface Water and Sediment Delineation Report, 1999). Differing risk scenarios may be applicable in shallow water areas (if present) that are accessible by hunters, trespassers, etc.

2. The map (given as Figure 2-1 of FFS, Figure 1B of the Proposed Plan) shows migration pathways for dioxin concentrations above 30 ppt and below 20 ppt. The use of the 20 ppt concentration category is unclear, as 15 ppt was defined as the minimal delineation concentration for purposes of mapping concentrations along sediment migration pathways in all associated work plans and discussions.
3. Results of the revised risk characterization and RGOs for off base sediments (Area 3) should be included in the Human Health Risk Assessment (March 2000) as no RGO for off base sediments is given (Table 3-14, page 3-44). Revised RGOs and associated maps and tables should also be included in the Proposed Plan and FFS.

Please feel free to contact me if I can be of further assistance.

Sincerely,
Bob Merrill
Bob Merrill

cc. Elizabeth Wilde, USEPA