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NCBC DAVISVILLE
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LETTER AND COMMENTS FROM U S EPA REGION I REGARDING DRAFT FINAL
SAMPLING AND ANALYSIS PLAN CONFIRMATORY SAMPLING AND DRAIN LINE
INVESTIGATION FOR OUTFALL 001 NCBC DAVISVILLE RI
09/30/2010
U S EPA REGION I



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND - REGION I
1 CONGRESS STREET, SUITE 1100 (HBT)
BOSTON, MASSACHUSETTS 02114-2023

September 30, 2010

Jeff Dale

Dept of the Navy, BRAC PMO Northeast
Code 5090 BPMO NE/JF
4911 South Broad St
Philadelphia, PA 19112-1303

Re: *"Draft-Final Sampling and Analysis Plan (Field Sampling Plan and Quality Assurance Project Plan) Confirmatory Sampling and Drain line Investigation, QDC Outfall 001"*, dated August 2010 at the Former Davisville Naval Construction Battalion Center (NCBC), Rhode Island

Dear Mr. Dale:

Pursuant to § 7.6 of the Davisville Naval Construction Battalion Center Federal Facility Agreement dated March 23, 1992, as amended (FFA), the Environmental Protection Agency has reviewed the subject document and comments are below. EPA is satisfied that most of these comments have been resolved by the discussion we had on September 9, 2010, however, for the record EPA has included them here.

GENERAL COMMENTS

Comment 1: Based upon review of the "as built" Quonset Business Park Storm Drainage System, General Plan, January 2007, prepared by the Quonset Redevelopment Corporation, there is a connection of a storm drain line from the Former Drum Storage Area (Study Area 01) to the QDC Outfall 001 storm drain line. The plan also shows several catch basins within Study Area 01 that drain into this contributory storm drain line. This area is where 55-gallon drums containing waste oil and solvent were stored. This suggests potentially significant residual contributing contamination to the QDC Outfall 001 drain line. Review of the SAP does not show any specific actions designed to investigate this apparent contributing source area. Inspection and sampling of this apparent contributing storm drain line and associated catch basins should be included as an integral part of the QDC Outfall 001 investigation program. As discussed with Navy during our September conference call, Navy will evaluate all contributing drain lines.

Comment 2: The locations of manholes and diameters of storm drain pipes depicted on the QDC "as built" plan, as well and the COE Figure 3.4-2 of the Nike Site Investigation Work Plan, suggests that there may be other storm drain lines with associated catch basins that connect to the QDC Outfall 001 storm drain line. (The COE figure actually shows three manholes are located in the vicinity of the Building 224 floor drain, as well as two storm drains connecting to the QDC Outfall 001 drain line from Study Area 01). The diameters of the drain lines depicted also suggest that one or more of the other smaller diameter drain lines shown on the plan enter the larger diameter QDC Outfall 001 (i.e. 18" drain normally enters a larger 21" line, etc). Therefore, a detailed inspection of

the entire QDC Outfall 001 drain line should be conducted to determine inlet and outlet pipes to the manholes depicted on the “as built” plan. This activity is necessary to identify all potential contributing contaminant sources to the QDC Outfall 001. As discussed with Navy during our September conference call, Navy will evaluate all contributing drain lines.

Comment 3: The proposed wetlands sediment sampling proposed in this SAP should be expanded to cover a larger area of the potentially impacted wetlands beyond the outfall. While several sediment sample locations are proposed they do not provide adequate coverage to be able to ascertain whether there has been an impact to the wetlands from discharges from the QDC Outfall 001 storm drain. Inspection of Figures 17-1 and 17-2 of this SAP shows that the topographic surface at the outfall would direct discharging storm water in a curvilinear direction from the outlet of the outfall with resulting storm water entering the wetlands to the east of the outfall and not necessarily directly straight ahead to the northeast. Therefore, additional sediment samples are needed to the south of the five samples that are depicted on Figure 17-1. While EPA believes a minimum of three additional samples should be recommended in the area south of those proposed and east of the QF-SO-CS03 location shown on that figure, we have agreed to only shift the samples as discussed during our conference call.

Comment 4: The proposed activities call for several test pits along the length of the QDC Outfall 001 storm drain line if the drain line investigation does not show evidence of breaks in the storm drain line or accumulation of sediment, etc. that could be used to focus the location of the test pits. The proposed “non-random” locations are shown on Figure 17-2. However, if no evidence is found during the storm drain inspection, a more appropriate location for the test pits would be adjacent to manholes along the storm drain line. Review of the QDC Outfall 001 “as built” drawing shows that in addition to the apparent former floor drain at the head of the drain line, there are three manholes, and one catch basin down gradient along the QDC Outfall 001 line (the COE figure shows four manholes). While one of the four proposed test pits is at the location of the former floor drain, the remaining three proposed “random” test pit locations on Figure 17-2 do not address the manhole/catch basin locations.

It is recommended that if evidence of storm drain, line breaks, or sediment accumulation, are not found during the inspection, that test pits be excavated adjacent to each of the down gradient manholes and/or catch basin. The rationale for this is that there is often settlement of manholes and catch basins with associated shifts and displacement of connecting inlet and outlet pipes. There is also a break in the hydraulic grade line in the manhole as pipes enter and then exit. This can result in slowing and/or stagnation of storm water flow and deposition of sediment in the manhole and/or catch basin. Therefore, these locations have potential to be points where storm water and any associated contaminants infiltrate to the subsurface. As such, if “non-random” placement of test pits is to occur, they should be at the manholes and catch basins.

Comment 5: Considerable discussion is provided in Section 11.4 regarding the “Analytic Approach” and subsequent determination of additional investigative work and/or potential remediation. Given the relative vagueness of the text in terms of determining future actions, it is recommended that consideration be given to sampling the storm water discharges from this outfall during a storm event; unless it can be shown that there is absolutely no present day contribution to

the QDC Outfall 001 storm drain line. Collection and analysis of storm water from this outfall (and one or more of the immediately up gradient manholes) during a precipitation event sufficient to create runoff will provide a more direct means of assessing the current contribution of contaminants to the area down gradient of the outfall.

SPECIFIC COMMENTS

6. SAP Worksheet #15a:

Please explain in a footnote the meaning of the shading used.

7. SAP Worksheet # 15:

Please explain in a footnote the meaning of the shading used.

8. Section 11.4.A.2.: The bullets in this subsection refer to PECs and TECs, presumably the Probable Effect Concentration and Threshold Effect Concentration from Macdonald et al 2000. However, PECs and TECs are not among the screening levels identified in Section 11.2.3. Please revise for consistency. It would be suitable to use language such as:

“Exceedances by chemicals that have both “no-effect” and “low effect” benchmarks (e.g. PECs and TECs from Macdonald et al, 2000) will be evaluated to assess the likelihood of adverse effects, given the conservative nature of the benchmarks.

9. Worksheets 31 and 32 - The field assessment activities have been removed from the Draft Final revision (only the lab assessment information remains). What happened to the planned field assessment activities?

10. Appendix H: Although the selected benchmarks are acceptable for screening purposes, EPA region I generally prefers Threshold Effect Concentrations (TECs) and Probable Effect Concentrations (PECs) (Macdonald et al 2000) for screening freshwater sediment. These benchmarks have the advantage that less conservative action levels can be selected between the TEC and PEC if justified by site-specific conditions.

If you have any questions with regard to this letter, please contact me at (617) 918-1384.

Sincerely,



Christine A.P. Williams, RPM
Federal Facilities Superfund Section

cc: Richard Gottlieb, RIDEM
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