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04.01-10/9/96-00697

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09 OCT 1996

U. S. Environmental Protection Agency
Region III
Office of Superfund
Attn: Mr. Harry Harbold, P.E. (3HW71)
VA./W.VA. Federal Facilities
841 Chestnut Building
Philadelphia, Pennsylvania 19107

SITE 3

Re: Response to Comments for the Q-Area Drum Storage Yard
Proposed Remedial Action Plan (PRAP), Norfolk Naval
Base, Norfolk, Virginia

Dear Mr. Harbold:

The Navy appreciates the EPA review of the PRAP for the Q Area Drum Storage Yard (QADSY). This letter is a response to the U.S. Environmental Protection Agency (EPA) comment letter of July 1996 on the QADSY PRAP. You also noted in this letter that no response was given to the EPA letter of August 25, 1994 concerning ecological comments on the Revised Draft Final RI/FS. This is not correct as the Navy responded to those comments in our March 29, 1995 letter. I have enclosed a copy of the letter.

Responses to the comments you provided on the PRAP are as follows:

1. **Comment Number 1:** Section 2.2.2 - Nature and Extent of Contamination. The media investigated during the RI/FS include not only soil and groundwater but also sediments. Results of sediment sampling have not been included in this discussion.

Response: During a conference call on February 24, 1995, between the EPA Remedial Project Manager (RPM) (Mr. Robert Thomson), the Virginia Department of Environmental Quality (VDEQ) RPM (Mr. Pat McMurray), the Navy, and the Navy's contractor, it was decided that sediment samples would be addressed in the quantitative risk assessment and would not be evaluated due to: 1) the lack of sediments onsite or directly adjacent to the site; 2) the potential for numerous contaminant sources supplied to the drainage conduit flowing through the site; and 3) the numerous sources at the effluent to the storm drain pipe at Willoughby Bay. Mapping of the drainage piping system was provided to both the EPA and VDEQ prior to this meeting to clarify the sediment and drainage conditions at this site. Sediments from the QADSY

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are not present adjacent to the Elizabeth River due to the bulkhead. Also, please note that the surficial gradient and drainage piping sends surface water/sediments to Willoughby Bay and not the Elizabeth River.

2. **Comment Number 2:** Section 3.0 - Scope and Role of Remedial Action. One purpose of this section of the Proposed Plan is to identify principal threats and how the response action will address the principal threats through site remediation. As this section is written, it is not clear how the groundwater poses a threat to human health or the environment, what cleanup levels have been established, how the proposed technology will achieve cleanup levels, and why soil remediation is not necessary. The last two paragraphs discuss the pilot study and the concept of providing a remediation zone prior to groundwater discharge. This is unclear as to the extent of groundwater contamination and may be more appropriately discussed under a description of alternatives.

Response: Section 5.0 of the PRAP discusses the site scenario remediation action objectives. The remediation scenario is for the future worker because the resident scenario is highly unlikely because of the location of the QADSY in a highly industrialized portion of the base near the ships piers. Impacted soil for the future worker scenario meets acceptable health-based levels. Section 5.0 lists the groundwater chemical of concern to be remediated.

3. **Comment Number 3:** Section 4.0 - Summary of Site Risks The first paragraph of this section references seven study areas which are not described elsewhere in the Proposed Plan.

Response: There is only one study area for the QADSY. "Seven" is a typo and will be corrected in the revised PRAP.

4. **Comment Number 4:** Section 5.0 - Remediation Goals The Proposed Plan lists remedial goal objectives for both future worker and future resident scenarios for groundwater but does not indicate which of the two criteria will be met. The Proposed Plan does state that the future resident scenario is highly unlikely and the FS identifies remedial goals for the future worker scenario.

Response: The revised PRAP will clearly state that the remedial goals will be the future worker scenario.

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5. *Comment Number 5:* Section 6.0 - Evaluation of AS/SVE Alternatives This section should be correctly titled Evaluation of Alternatives since all alternatives are evaluated. The capital and O&M costs and implementation time associated with each alternative should also be included.

Response: The section will be changed to Evaluation of Alternatives in the Final PRAP. The Capital and O&M costs will be included in the Final PRAP

6. *Comment Number 6:* Section 6.3 - Compliance with ARARs The discussion of ARARs in this section is vague. Specific State and Federal ARARs for groundwater, surface water, air omissions, etc. should be identified and discussed relative to the alternatives evaluated.

Response: A detailed discussion of ARARs is included in the FS. This information and an accompanying reference will be included in the revised PRAP.

7. *Comment Number 7:* Section 6.4 - Long-Term Effectiveness and Permanence This section should indicate that long-term groundwater monitoring will be required as part of the remedy.

Response: Long-Term groundwater monitoring will be required as part of the remedy and will be added to the PRAP.

8. *Comment Number 8:* Section 6.8 - Cost The cost of the preferred alternative should be provided along with any contingency costs rather than include a reference to the FS that the preferred alternative has the higher cost.

Response: The cost of the preferred alternative will be provided along with any contingency costs in the revised PRAP.

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If you have any questions, please contact the Remedial Project
Manager, Mr. Dave Forsythe, at (757) 322-4783.

Sincerely,

N. M. Johnson

N. M. JOHNSON, P.E.

Head

Installation Restoration Section (North)

Environmental Programs Branch

Environmental Division

By direction of the Commander

Enclosure

Copy to:

VDEQ (Mr. D. Harris)

COMNAVBASE Norfolk (Code N45)

ESE (Mr. A. Forrest)

~~Administrative Record File~~