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DEPARTMENT OF THE NAVY
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
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TELEPHONE NO:
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IN REPLY REFER TO:
5090
1822:DMF:cag
23 JUN 1995

Commonwealth of Virginia
Department of Environmental Quality
Attn: Ms. Patricia McMurray
Waste Division
629 East Main Street
Richmond, Virginia 23219

Re: Camp Allen Landfill Proposed Remedial Action Plan, Areas A and B, Naval Base, Norfolk, Virginia Response to Comments

Dear Ms. McMurray:

On April 6, 1995, you provided comments on the subject document. Your comments were received at end of the public comment period for this document and therefore were responded to in the responsiveness summary contained in the Camp Allen Landfill Decision Document. A copy of the draft final version of this document has been provided to your office.

If you have any questions, please contact the Remedial Project Manager, Mr. Dave Forsythe, at (804) 322-4783.

Sincerely,

N. M. Johnson

N. M. JOHNSON, P.E.
Head, Installation Restoration Section, (North)
Environmental Programs Branch
Environmental Quality Division
By direction of the Commander

Copy to:
EPA Region III (Mr. Robert Thomson, 3HW71)
Administrative Record File (Naval Base Norfolk)
COMNAVBASE Norfolk (Code N42B, Mr. D. Bailey)
Baker Environmental (Ms. J. Trageser)

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Peter W. Schmidt
Director

P. O. Box 10009
Richmond, Virginia 23240-0009
(804) 762-4000

April 6, 1995

Department of the Navy
Atlantic Division
Naval Facilities Engineering Command
1510 Gilbert Street
Attn: Code 1822, Mr. David Forsythe
Norfolk, VA 23511-2699

RE: **Camp Allen Landfill Proposed Remedial Action Plan**
Norfolk Naval Base

Dear Mr. Forsythe:

Attached for your review are my comments on the "Proposed Remedial Action Plan" for Camp Allen Landfill dated March 2, 1995. The ARARs section has also been reviewed by our ARARs Coordinator, Paul Spaulding.

The map that you sent to Mr. Spaulding has been forwarded to the Water Division. The Water Division comments will be sent to you as soon as their evaluation is complete.

If you have any questions about the comments, please contact me at (804)-762-4186.

Sincerely,

Patricia McMurray
Toxicologist, Office of Federal Facilities Restoration and Superfund

Attachments

cc: Stacie Morekas Driscoll, EPA Region III
Dianne Bailey, Norfolk Naval Base
Frank Daniel, Tidewater Regional Office
Erica Dameron
Dinesh Vithani
Paul Spaulding

Comments
Norfolk Naval Base
Camp Allen Landfill
Proposed Remedial Action Plan (PRAP)

1. Page 2-5, Section 2.3.2: This section refers to surface soil as nominally impacted. Please clarify this statement as there were several contaminants that exceed risk-based concentrations in surface soil. Table 2-1 uses a similar description.

2. Page 2-7, Section 2.4: This section refers to the Remedial Action Closeout Report for the Area B Landfill removal action. Note that this report was only recently received by this office and will be reviewed to verify that remedial actions are not required for Area B soils.

3. Table 3-1: Note that the ARARs comments submitted by the state (February 3, 1995 letter from Erica Dameron to Nina Johnson) have not been incorporated into the final document. The comments are as follows:

   1) The identification of VPDES as an ARAR may require some revision to indicate that this is a permitted activity. Also, the comments for the VPDES regulations should indicate that there are monitoring requirements associated with the discharge regulations.

   2) The citation to the "Virginia Hazardous Waste Regulations", as used to identify requirements for the transport of hazardous materials, should be changed to "Virginia Hazardous Waste Management Regulations (VR 672-10-1, Parts VI and VII) and Regulations Governing the Transportation of Hazardous Materials (VR 672-30-1)".

   3) Some specific sections of Part X of the Virginia Hazardous Waste Management Regulations (VHWMR) are identified as subparts under the general citation. Part IX of VHWMR should be referenced in place of Part X because Part IX is applicable to unpermitted units. Also, VHWMR Section 9.13, Landfills, should be included in this section of the table.

   Note that VHWMR Section 9.13.D addresses the requirements for landfill closure and post-closure care. The questions raised by EPA in the third paragraph of comment #12 (letter from Stacie Morekas Driscoll to Dave Forsythe dated February 24, 1995) regarding state closure requirements should be addressed in relation to this section. Also note that the date of closure, as stated in LANTDIV's response to EPA comments (letter to Stacie Driscoll from Nina Johnson dated March 20, 1995), does not affect the determination of whether this

section is relevant and appropriate to the proposed remedial action.

It should be noted that 9.13.D does require a final cover. However, if it can be shown that the proposed remedial action would be as protective as the cover described in this section then the requirement for the cover may not necessarily be considered relevant and appropriate. In addition, it must be shown that the landfill would not be an eyesore if it were not covered in order to comply with Part IV of the Virginia Solid Waste Management Regulations.

All groundwater monitoring requirements must be met. If groundwater monitoring indicates that cleanup goals cannot be met, the decision not to cover the landfill as part of the final remedy will have to be reevaluated.

4. Section 4.1: The summary of site risks for each medium should also mention the contaminants that are driving any unacceptable risks.

5. Page 4-7, Section 4.3.1: This section states that achievement of the remediation goals for soil will be based on monitoring of contaminant levels in groundwater. Does this imply that there will not be any confirmation sampling in soil during and after the remedial action? Confirmatory soil sampling should be performed to insure that there is no unacceptable risk due to soil contact, particularly if there will not be a final cover on the landfill.

6. Page 4-7, Section 4.3.2 states that the cleanup goals for each aquifer have been developed based on the potential beneficial use. Therefore the cleanup goals for the shallow aquifer are based on nonpotable use. However, in Appendix B of the Final Feasibility Study (FS) it appears that soil cleanup levels are being set to achieve MCLs (Maximum Contaminant Levels) in the shallow aquifer. Please clarify this apparent discrepancy.

7. Although it has been stated that the shallow aquifer is not currently used as a potable source, there is no statement confirming that the shallow aquifer <u>cannot</u> be used as a potable source in the future. If the cleanup levels for the shallow aquifer are based on nonpotable use, the document should include a definitive statement that the water will not be used a potable source. (As discussed at the RAB meeting on March 22, 1995 the City of Norfolk does not allow potable use of the upper aquifer. A citation of this city ordinance would help to justify the use of nonpotable cleanup goals. If there are physical properties of the aquifer that make it unacceptable for drinking, these should be mentioned as well.)

8. Appendix B of the FS uses Monte Carlo simulation to set soil cleanup levels. However, the model inputs are given as discreet values rather than distributions in Attachment II. Please explain how Monte Carlo simulation was used in setting cleanup levels. Also, results at different percentiles in addition to the expected value should be shown and discussed.

9. The shallow aquifer cleanup levels have been set to achieve a hazard quotient of one for individual contaminants. The cleanup levels should be set to achieve a hazard **index** of one for multiple contaminants unless it can be shown that the effects of the contaminants would not be additive.

10. Table 6-5: The evaluation of long-term effectiveness and permanence states that risks would exceed acceptable levels if shallow and deep aquifers were used for potable use on-site under alternative A1-GW3. However, if the Yorktown aquifer is treated to the proposed cleanup levels, potable use would be within acceptable risk levels (except as noted above for HIs). This statement should be clarified. Similar statements are made on Tables 6-6 and 6-7.

11. The Yorktown aquifer cleanup levels have been set to achieve MCLs for individual contaminants. For the carcinogenic contaminants the estimated risk at the cleanup levels (rounded to one significant figure) would be 1×10^{-4} and would therefore be considered acceptable. However, for the noncarcinogenic contaminants the hazard index at the cleanup levels exceeds unity. As noted above, the cleanup levels should be set to achieve a hazard **index** of one for multiple contaminants unless it can be shown that the effects of the contaminants would not be additive.