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# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

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July 14, 1998

Department of the Navy  
Atlantic Division  
Naval Facilities Engineering Command  
Attn: Mr. Jim Harris  
1510 Gilbert Street  
Norfolk, Virginia 23511-2699

Site 6

RE: Final Proposed Remedial Action Plan, Operable unit 2, CD Landfill, Naval Base, Norfolk, Virginia (the PRAP), as well as the Draft Record of Decision - OU 2, CD Landfill Site, naval Base, Norfolk, Virginia (the ROD).

Dear Mr. Harris:

The Department of Environmental Quality (DEQ), Waste Division, has reviewed the above referenced document for the Naval Base Norfolk, Portsmouth, Virginia.

Attached are our comments and questions on these documents. If you have any questions, please contact me at (804) 698-4226.

Sincerely,

Devlin M. Harris  
Environmental Engineer. Sr  
Federal Facilities Program

cc: Durwood Willis - DEQ

MEMORANDUM  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
OFFICE OF SUPERFUND AND VOLUNTARY REMEDIATION PROGRAMS

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TO: Devlin Harris  
FROM: Kathleen O'Connell  
RE: Norfolk Naval Base, CD Landfill Site/OU2  
DATE: July 10, 1998  
COPIES: Erica Dameron, John Ely

I have reviewed the *Final Proposed Remedial Action Plan, Operable Unit 2, CD Landfill, Naval Base, Norfolk, Virginia (the PRAP)*, as well as the *Draft Record of Decision - OU 2, CD Landfill Site, Naval Base, Norfolk, Virginia (the ROD)*, and have the following comments to offer:

1. In Table B-2a of the ROD, the Navy states that Virginia's primary drinking water standards (defined by statute as primary maximum contaminant levels or PMCLs) are "relevant and appropriate" requirements for the proposed project. This is indeed the case. However, the Navy goes on to state that the "standards" are relevant to the Yorktown Aquifer only. In defense of its position the Navy avers that PMCLs are relevant to remediation of Class I and Class II aquifers, but not Class III aquifers, that the Yorktown Aquifer is a Class II aquifer, and that the site's "water table" aquifer is a Class III aquifer. The Navy should be informed that Virginia does not rank its groundwater by class. Therefore, an analysis of the relevance of PMCLs, based on groundwater class alone, is faulty as a matter of state law. DEQ does understand however, that the agency's Superfund and Federal Facilities Programs follow EPA guidance in matters such as these, and use PMCLs as clean-up end-points in cases of aquifers which are current or potential sources of drinking water. DEQ understands further that program staff agree with the statement in the ROD that the site's shallow, or "water-table" aquifer is non-potable. By definition non-potable water is unfit for human consumption. (12 VAC 5-590-10, *Definitions*.) That being the case the agency, as a matter of policy, would not use PMCLs as clean-up end-points for the shallow aquifer. Absent such use, PMCLs are not relevant requirements.

Also, in the *Comments* section of the table, the Navy states that MCLs are relevant only at unit boundaries. This is an incorrect analysis of the nature of the remediation requirement.

Once found relevant, MCLs would apply as clean-up end-points for the entire aquifer, not just that portion at and beyond the boundaries of the waste disposal unit. However, it is understood that, again as a matter of policy, in applying the principles of risk management, the agency's Superfund and Federal Facilities Program staff allow land owners to employ institutional controls as a means of protecting human health and the environment, rather than require remediation of on-site contamination. The ROD states that the Navy intends to prohibit groundwater withdrawal at the disposal site through use restrictions incorporated into base development plans and described in plat and deed documents to be placed of record. The ROD also states that the Navy intends to monitor groundwater contaminant levels at unit boundaries. The foregoing being the case program staff will agree to a remedial plan that assures that PMCLs will be met at unit boundaries, rather than require that they be met within the landfill itself.

Finally, as a note that the *Comments* section of the table indicates that Virginia's PMCLs are identical to those promulgated by EPA under the *Safe Drinking Water Act*. This is not the case. For example, Virginia regulates nickel as a PMCL, and EPA does not. Conversely, EPA includes aldicarb as a primary MCL, and Virginia does not.

2. In Table B-2a of the ROD the Navy states that Virginia's secondary MCLs (described by the Navy as regulations for the aesthetic qualities of drinking water) are "to be considered (TBC)", for the Yorktown Aquifer only. As has been discussed above, clean-up end-points are not required for the site's non-potable shallow aquifer. However, with respect to the Yorktown Aquifer, the Navy's statement that secondary MCLs are merely requirements "to be considered", is incorrect. As justification for its position the Navy states generally that secondary MCLs (SMCLs) are "nonenforceable contaminant levels" and therefore "not ARARs". While it is true that federal SMCLs are merely "goals" and therefore not enforceable, Virginia has promulgated its SMCLs as regulatory requirements. (12 VAC 5-590-390, *Chemical and Physical Quality*.) Regulatory requirements are enforceable. Given the foregoing Virginia's SMCLs would be "relevant and appropriate" to the proposed remedial activity. (I note, too, that nowhere in Virginia's drinking water regulations are SMCLs relegated to the status of "aesthetic" requirements.)

3. In Table B-2a the Navy states that Virginia's *Groundwater Standards* (9 VAC 25-260-190 to 220) are to be used (presumably as clean-up end-points) when "no MCL is available". DEQ agrees that it may be appropriate to use groundwater standards as clean-up requirements in the absence of MCLs. It is equally appropriate, however, to use groundwater standards as end-points in those cases where the standards are more stringent than MCLs, and where

the agency has determined that the use of MCLs as end-points would not sufficiently protect human health or the environment.

4. In Table B-2a of the ROD the Navy states that Virginia's *Water Quality Standards* (9 VAC 25-260-10 to 540) are "applicable" to discharges to surface waters. This is indeed the case. With respect to surface water discharges, It is noted that the project anticipates storm water discharges from the landfill, to a culvert which leads to Bousch Creek. As is discussed in paragraph 13, such discharges are also subject to regulation under the *Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation*.

5. In the "Chemical Specific" portion of Table B-2a the Navy states that Virginia's ambient air quality standards are not enforceable and are therefore "TEC" rather than APARs. In the "Action Specific" portion of the table the Navy states that the standards are "applicable" to grading activities. No explanation of this discrepancy is given; however, the Navy should be informed that the standards are indeed "applicable" to all activities at the site that may generate regulated pollutants. As is noted in the table, the standards for particulate matter (9 VAC 5-30-20 and 9 VAC 5-30-60) would appear to be especially relevant.

6. In Table B-2a of the ROD the Navy notes that the "Virginia Wetlands Act (cited as §§ 62.1-13.1, et seq. of the Code of Virginia) and the Virginia Wetlands Regulations" are "applicable" to the remediation project. Initially we note that the cited statutory provisions were repealed in 1992. However, the provisions of the *State Water Control Law* do allow the Department to exercise control over wetland-disturbing activities through the issuance of a Virginia Water Protection Permit and are "applicable" to the project. (Va. Code Ann. §62.1-44.15:5 [1998].) In addition, the Virginia Marine Resources Commission exercises jurisdiction over wetlands activities by virtue of the provisions of Va. Code Ann. §§ 28.2-1300 to 1320 (1998) and these statutory requirements are also "applicable" to the project. The regulatory provisions of the Virginia Marine Resources Commission cited by the Navy in the table (4 VAC 20-390-10 to 50, *Wetlands Mitigation Compensation Policy*), as well as those regulations implementing the Virginia Water Protection Permit Program (9 VAC 25-210-10 to 260, *Virginia Water Protection Permit Regulations*) are "applicable" to the project as well. It is noted that, contrary to the Navy's assertion in the ROD, the jurisdiction of the Virginia Marine Resources Commission does not depend on the existence of a wetland as defined by (federal) Executive Order. Wetlands are defined in this case by statutory provision. (Va. Code Ann. §28.2-1300, *Definitions*.)

7. The Navy asserts in Table B-2a that the provisions of the *Chesapeake Bay Preservation Act* and its associated regulations are not ARARs, but rather TBC since the area in which the project is located is not an area designated by local government as either a resource management or resource protection area, and therefore does not come under the jurisdiction of the Act. The Navy is correct in its assertion.

8. In Table B-2a the Navy states that the closure and post-closure requirements of the "Virginia Hazardous Waste Management Regulations" are applicable to the project. The Navy states as the basis for its conclusion that cadmium-contaminated (D006) wastes were disposed at the landfill after November 1980. Initially, we note that the proper title is the *Hazardous Waste Regulations*. We also note that conversations with program staff have indicated that the staff considers the closure and post-closure requirements of the *Hazardous Waste Regulations* to be inapplicable since sampling has confirmed that the cadmium wastes are not, at this point in time, hazardous. In addition I understand that even if the wastes were hazardous at the time of disposal, it is not entirely clear that the landfill did allow disposal of cadmium contaminated wastes after November 1980. The Department follows EPA policy in matters such as these and does not extend its authority under the *Hazardous Waste Regulations* to pre-November 1980 disposal activities.

10. In Table B-2a the Navy notes that the provisions of the regulations of the Air Pollution Control Board relating to fugitive dust (9 VAC 5-50-60 to 120, *Standards of Performance for Visible Emissions and Fugitive Dust/Emissions [Rule 5-1]*) and to toxic pollutants (9 VAC 5-50-160 to 230, *Standards of Performance for Toxic Pollutants [Rule 5-3]*) are applicable to regrading activities at the site. It is true that these regulatory requirements are applicable, however their applicability is not limited to regrading activity. The requirements would apply to any remediation activities that generate fugitive dust or toxic pollutants.

11. The Navy states in Table B-2a that the provisions of the *Storm Water Management Regulations* and of the *Erosion and Sediment Control Regulations* are applicable to land-disturbing activities at the site. The Navy is correct in its assertion.

12. The Navy states in Table B-2a that the closure and post-closure requirements for construction/demolition debris landfills found in the "Virginia Solid Waste Regulations" are "relevant and appropriate" to the project. As has been noted above, cadmium-contaminated (i.e. industrial) wastes have been disposed at the landfill. This being the case, the closure and post-closure requirements for both construction/demolition debris landfills

(found at 9 VAC 20-80-260 of the *Solid Waste Management Regulations*) and for industrial waste landfills (found at 9 VAC 20-80-270 of the *Solid Waste Management Regulations*) would control. These requirements would be "applicable", not merely "relevant and appropriate" and would apply to both the permitted and unpermitted portions of the landfill. The requirements would dictate, among other things, post-closure care, design and installation of the landfill cover, design and operation of a groundwater monitoring system, and, if necessary groundwater corrective action. In cases of "conflict" between the requirements for industrial landfills and construction/demolition debris landfills, the more stringent of the requirements would control.

13. The Navy notes in Table B-2a that the requirements of the "Virginia Water Pollution Control Regulations and the Water Protection Permit Regulations" would be applicable to discharges of "treated water to surface water on site". As has been noted above, the provisions of the *Virginia Water Protection Permit Regulation* are applicable to wetland-disturbing activities. These provisions are generally not cited for authority to exert regulatory control over surface water discharges. The provisions of the *Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation* (9 VAC 25-31-10 to 940) are, on the other hand, directly "applicable" to surface water discharges. The regulations would apply, as has been noted in the table, to discharges of treated water. In addition, the regulations are "applicable" to storm water discharges from certain facilities, including landfills. The Navy should contact the Department's Tidewater Regional Office for further information regarding VPDES requirements for this project.

14. The Navy notes in Table B-2a that the "Virginia Regulations for the Transportation of Hazardous Materials" would be "applicable" to the project. I note that the correct titles of the regulations are the *Solid Waste Management Regulations* (9 VAC 20-60-420 to 500, *Regulations Applicable to Transporters of Hazardous Waste*) and the *Regulations Governing the Transportation of Hazardous Materials* (9 VAC 20-110-10 to 130). The Navy is correct in asserting that if hazardous wastes are generated during remediation activities, and subsequently transported off-site, the requirements of the aforementioned regulations would apply to transport activities. The Navy should also be informed that if hazardous wastes are generated, these wastes must be managed in accordance with the provisions of 9 VAC 20-60-330 to 410, *Regulations Applicable to Generators of Hazardous Waste* (and, by reference, with the provisions of 9 VAC 20-60-600, *Use and Management of Containers*). Any hazardous wastes generated must also be disposed at an appropriately permitted facility. The Navy may wish to note that no permitted hazardous waste

disposal facilities exist in Virginia.

15. The Navy notes in Table B-2a that the provisions of the "Virginia Solid Waste Regulations" would be "applicable" to off-site disposal of solid wastes (presumably) generated during remediation activities. Initially, I note that the correct title of the regulations is the *Solid Waste Management Regulations*. In addition, I note that the Navy is correct in asserting that the regulations would apply to solid waste disposal activities. Specifically the *Solid Waste Disposal Facility Standards*, 9 VAC 20-80-240 to 310, would govern the choice of an appropriate disposal facility. (In addition, the provisions of the *Virginia Waste Management Act*, Va. Code Ann. §10.1-1418.1 [1998], would be "applicable" and would require that wastes be disposed in a legal manner.) The Navy should also be informed that the provisions of 9 VAC 20-80-60(D)(4) of the *Solid Waste Management Regulations* would be "applicable" to staging of solid wastes and that the provisions of the *Virginia Waste Management Act*, Va. Code Ann. § 10.1-1424 (1998) would be "applicable" to transport of solid wastes.

16. Although not so noted in Table B-2a, the Navy should be advised that the *Virginia Endangered Species Act*, Va. Code Ann. §§ 29.1-563 through 568 (1998), is "applicable" to the project. The Navy should request that the Department of Game and Inland Fisheries evaluate the landfill site to determine whether it contains protected species. The Navy should also note that the provisions of the *Virginia Natural Areas Preserves Act*, Va. Code Ann. §§ 10.1-209 to 217 are "applicable" to the project if the Department of Conservation and Recreation has accepted dedication of portions of the site as natural area preserves. (The Act restricts certain activities in these areas.) If no such dedication exists, the Act's provisions are "relevant and appropriate." In either event, the Navy should contact the Department of Conservation and Recreation to request a review of the Navy's land-disturbing activities to determine whether the activities threaten natural heritage resources. Finally, the Navy should note that the provisions of the *Endangered Plant and Insect Species Act*, Va. Code Ann., §§ 3.1-1020 to 1030 (1998), are "relevant and appropriate" to the project. (Although the provisions of the Act do not apply to land-owners, the Act does prohibit the taking of endangered plant and insect species.) The Navy should request that the Department of Agriculture and Consumer Services evaluate the site to determine whether it contains protected species.

17. The following comments are on portions of the ROD (and of the PRAP), other than Table B-2a:

a. Table 2-3 of the PRAP and Table C-5 of the ROD contain errors in their citation of Virginia's water quality standards (e.g., the Navy cites the value of 2,700 micrograms/liter for 1,2-dichlorobenzene for public water supplies, the value cited in the standard is 17,000 micrograms/liter; the Navy cites no value for copper, the value cited in the standard is 1,300 micrograms/liter).

b. Table 2-4 of the PRAP and Table C-3 of the ROD contain errors in their citation of Virginia's PMCL's (e.g., the Navy cites no value for antimony, the value cited in the PMCL regulation is 6 micrograms/liter; the Navy cites the value of 10 micrograms/liter for cadmium, the value cited in the regulation is 5 micrograms/liter).

c. Figure 2-4 of the ROD, a cross-section of the cap to be installed at the landfill, indicates that it is related to soil remediation alternative SO-4. The reference should be to alternative SO-3.

Please note that this review focused only on the requirements of Virginia's environmental laws and regulations. Review of federal statutory and regulatory requirements has been left to EPA.