

Minnesota Pollution Control Agency

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

October 3, 1994

Mr. David Cabiness, Code 1862
Commanding Officer
Southern Division
Naval Facilities Engineering Command
P.O. Box 190010
North Charleston, South Carolina 29419-9010

RE: Naval Industrial Reserve Ordnance Plant Site

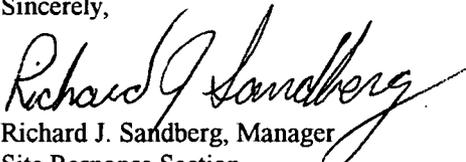
Dear Mr. Cabiness:

The Minnesota Pollution Control Agency (MPCA) staff has reviewed the U.S. Navy's (Navy) draft document ("working copy") entitled "Alternatives Array Document" (Draft AAD), dated August 23, 1994, which was received by the MPCA staff on September 15, 1994. The Draft AAD was submitted pursuant to the Federal Facility Agreement, dated March 27, 1991, between the MPCA, the U.S. Environmental Protection Agency (EPA), and the Navy.

The MPCA staff hereby approves the Draft AAD with modifications contained in the Attachment I to this letter. The MPCA staff also has comments to the AAD contained in Attachment II to this letter. No response is required from the Navy to these comments.

If you have any questions regarding this letter, please contact David Douglas of my staff at (612) 296-7818.

Sincerely,



Richard J. Sandberg, Manager
Site Response Section
Ground Water and Solid Waste Division

RS:ch

Enclosures

cc: Sidney Allison, Navy, Southern Division (w/enc)
Linda Hicken, RMT, Inc. (w/enc)
Thomas Bloom, United States Environmental Protection Agency, Region V (w/enc)

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ATTACHMENT I

MODIFICATIONS TO DRAFT ALTERNATIVES ARRAY DOCUMENT,

DATED AUGUST 23, 1994

| Section 2.3, Summary of the Soil OU RI Results

The Navy's response to Comment 2 of the Minnesota Pollution Control Agency (MPCA) letter dated July 29, 1994, to the July 31, 1994, draft of the Alternatives Array Document (AAD) does not provide a discussion of contaminant levels observed in the fine-grained material from the Remedial Investigation (RI) soil data as requested. The contaminant levels and vertical and aerial distribution of contaminated fine-grained soil shall be discussed in the AAD and shall be evaluated in the feasibility study (FS) to determine how this may impact the effectiveness of remedies evaluated in the FS.

2 Section 3, Remedial Action Objectives

Whereas the document discusses remedial alternatives for the volatile organic compounds (VOCs) in OU2, it does not discuss remedies for metals, semivolatile compounds, or pesticides. The Navy shall also include discussion of these chemicals of concern in the AAD, including identifying applicable or relevant and appropriate requirements (ARARs), To Be Considereds, and remedial alternatives for these other soil contaminants.

3 Section 4.1, Introduction

The Navy shall indicate in the text that the AAD does not address the soils that are contaminated underneath the buildings on the site, and that those soils shall be addressed as a separate operable unit (e.g., OU3). This modification was initially made to the July draft of this document.

4 Section 4.3, State ARARs

The Navy shall combine Tables 1 and 2 into one table for Applicable or Relevant and Appropriate Requirements (ARARs) only and shall develop another table for To Be Considereds. The second table shall contain the following To Be Considereds: the lead clean-up goal of 400 parts per million (ppm); and soil clean-up levels developed by the MPCA staff from the Minnesota Soil Leaching Model. Please be advised that the Minnesota recommended allowable limits (RALs) alluded to Section 4.3 are no longer valid or applicable as To Be Considered values. RAL values are now replaced with Health Risk Limits (HRLs) that are found in Minn. Rules pt. 4717.7500. Therefore, the Navy shall delete all reference to RALs in the AAD.

At the Technical Review Committee meeting of September 8, 1994, Tom Bloom of U.S. Environmental Protection Agency stated that the Summers model will no longer be considered in the derivation of soil clean-up numbers for soil at NIROP. The Navy shall delete reference to the the Summers Leaching Model in the text of this document or shall state that the Summers Leaching Model will not be used at NIROP.

5 **Section 5.2.1, Site-Specific Considerations, Groundwater Quality**

The text states that ". . . given the relative mass of contaminants already detected in groundwater, this unsaturated soil may not be the only source of chlorinated VOCs to the groundwater." It is also important to note here that unexcavated magnetic anomalies remain at the site and may well be a source of VOC concentrations observed in the ground water. The Navy shall rewrite the text to explicitly state this and discuss how the anomalies will be addressed in relation to the presumptive remedies discussed in the report. A separate MPCA staff letter dated September 16, 1994, requiring resolution of remaining magnetic anomalies has been sent to the Navy.

6 **Section 5.2.2, Soil Conditions**

The observation that the site contains nonhomogenous soils is acknowledged. However, for the purposes of setting clean-up numbers that are protective of ground water, it is altogether appropriate to employ the most conservative estimates of the contaminant's leaching potential, as it is not possible to completely know the heterogeneity of the soil or to completely understand the implications these heterogeneities have on the leaching of contaminants. The Navy shall select the best available remedial technology on this conservative basis, and the effectiveness of this remedy evaluated at appropriate intervals to discover to what extent the remedy has achieved those cleanup goals. Therefore, multiple clean-up numbers shall not be generated for soils at NIROP. The Navy shall rewrite this section to reflect the above narrative.

7 **Section 6.2.1, No-Action Alternative, Description**

The no action alternative shall include provision for periodic monitoring of VOC concentrations in the soil.

8 **Table 2**

The memorandum "Use of the MPCA soil leaching model for NIROP soils" dated June 23, 1994, includes a RAL for 1, 1-dichloroethane (1, 1-DCA) that is used to calculate the soil cleanup value for this compound. RALs have recently been supplanted by state promulgated HRLs. Please note that the HRL value of 70 ppb for 1, 1-DCA (Minn. Rules pt. 4717.7500, subp. 39a) is the same as the previously cited RAL value for this chemical. However, the footnote in Table 1 shall be modified to define the ground water ARAR for 1, 1-dichloroethane as a HRL instead of a RAL.

ATTACHMENT II

COMMENTS TO DRAFT ALTERNATIVES ARRAY DOCUMENT,

DATED AUGUST 23, 1994

Section 4.3, State ARARs

As a point of clarification, the term "state ARARs" refers to ARARs that are derived from laws, rules, etc., promulgated by the state. The state Superfund Law does not refer to either ARARs or To Be Considereds.

Section 5.2.1, Site-Specific Considerations, Groundwater Quality

In addition, the "extremely stringent" soil clean-up numbers generated by the MPCA Soil Leaching Model are protective of the underlying ground water and are not subject to alteration simply due to the discovery of other sources of contamination.

Table 2

Please note that the top two centimeters of bare soil, regardless of the site, shall not contain more than 100 ppm lead. The subsoil below two centimeters at Superfund sites may contain up to 400 ppm lead. Also please note that vegetated soil is not considered "bare soil."