



COMMONWEALTH of VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY

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Director

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March 10, 1994

Mrs. Brenda R. Norton
Code 1822
Naval Facilities Engineering Command
Atlantic Division
1510 Gilbert Street
Norfolk, VA 23511-2699

RE: Draft Proposed Remedial Action Plan, Operable Unit I, Site 5
Surplus Transformer Storage Area, Naval Weapons Station,
Yorktown, Virginia

Dear Mrs. Norton:

The Virginia Department of Environmental Quality is in receipt of the following document: Draft Proposed Remedial Action Plan, Operable Unit I, Site 5 Surplus Transformer Storage Area, Naval Weapons Station, Yorktown, Virginia. I have had the opportunity to review this. My questions and comments regarding the documents are attached.

If you have any questions, please feel free to contact me at (804) 762-4205.

Sincerely,

A handwritten signature in cursive script that reads "Lisa A. Ellis".

Lisa A. Ellis
Remedial Project Engineer
Federal Facilities Program

cc: K.C. Das
Erica Dameron
Durwood Willis
Rob Thomson, EPA Region III
Jennifer Loftin, Yorktown NWS

COMMENTS
NAVAL WEAPONS STATION YORKTOWN

1. As the Draft Proposed Remedial Action Plan (PRAP) was drafted before DEQ provided comments on the Site 5 Risk Evaluation, the comments on the Risk Evaluation were not taken into account in the writing of the PRAP. The Risk Evaluation revisions may affect the Proposed Remedial Action Plan for Site 5. Therefore, the following comments from the Risk Evaluation are re-presented. You are encouraged to evaluate their possible effect on the PRAP, and revise Section 5.0, Summary of Site Risks, accordingly.

Page 2-4, Section 2-4 of the Risk Evaluation indicates that methodologies for target compound list (TCL) organic chemicals were used. It is not clear from this statement whether the entire TCL was analyzed for or just PCBs. If other contaminants were analyzed for in addition to PCBs, the results should be discussed. If they were not, a rationale should be provided for limiting the analyses to PCBs.

Page 4-2 of the Risk Evaluation, last paragraph states that an RfD value is not currently available for PCBs. It should be noted that an RfD is available for Aroclor 1016 (7e-05).

Page 5-1, Section 5.1 notes that the dermal pathway is not being quantitatively evaluated due to the nature of the assessment. It should be noted that for PCBs, dermal absorption may be a significant route of exposure. For the potential receptors considered for this site, if ingestion of contaminated soil is possible, then dermal contact is also possible. Dermal contact should be quantitatively evaluated using the absorption factors provided in the Dermal Exposure Assessment Document (EPA, January 1992). Also, since construction workers are considered a potentially exposed population, the inhalation pathway via particulate inhalation during construction activity should be either assessed or discussed in the risk evaluation.

Page 5-1, Section 5.2 - The type of work performed by station personnel should be described as this will determine the exposure factors that should be used when quantifying exposure.

Page 5-2, Section 5.3 states that the dermal route is not being evaluated because RBC (risk-based concentrations) do not incorporate dermal contact. It should be noted that RBCs are intended to be a screening tool. Contaminants whose concentrations exceed RBCs should be evaluated for all relevant pathways. As noted above, dermal exposure should be quantitatively evaluated, as should inhalation exposure.

Page 5.2, Section 5.3.1 indicates that the ingestion rate for

adult occupational exposure is 100 mg per day. The Human Health Evaluation Manual Supplemental Guidance recommends 50 mg per day or 480 mg per day depending on the type of work involved. For construction workers, 480 mg per day may be more appropriate (in conjunction with lower exposure duration and exposure frequency factors).

Page 6-1 indicates that the maximum detected soil concentration was used to characterize risk. It should be noted that the Risk Assessment Guidance for Superfund recommends the use of the 95% upper confidence limit on the arithmetic mean to determine exposure point concentrations for a reasonable maximum exposure (RME). While the use of maximum concentrations may be appropriate for a screening level analysis, a determination of the RME is more appropriate for a baseline risk assessment. In addition, recent guidance recommends that an average exposure as well as an RME be presented.

Page 7-1, Section 7.2 states that the dermal exposure route accounts for a small percentage of the overall daily intake relative to ingestion. While this is true for many contaminants, it is not necessarily the case for PCBs. This statement should be modified accordingly.

In the risk assessment, no sampling activities are described for the pad in the interior of building 76. The proximity of the building to the transformer storage area would easily allow for PCB-contaminated soils, both currently and in the past, to be tracked into the building. Has this been considered?

Are there any cracks or gaps in the concrete pad(s) that would have allowed for migration of PCBs beneath the pad(s)? Did cleanup of the contaminated soils in 1982 also include any concrete removal, or testing beneath the concrete? If cracks or gaps exist in the pad(s), elevated PCB levels in the soil beneath the pad(s) may still be present.

Soil samples are indicated as having been taken on top of the concrete pad(s). Does this indicate that the concrete pad(s) no longer exists, that the soil on top of the pad(s) was sampled, that the pad(s) itself was sampled, or that the soil beneath the pad(s) was sampled? Does the gravel indicated on page 1-3 overlie the concrete pad(s), or is it around the pad(s)? Please clarify. The final RI was reviewed to try and answer these questions, but the information could not be found in that document.

Ms. Brenda Norton
Yorktown NWS
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2. It is stated in the "Scope and Role of Action" section that "Subsequent investigations indicate that the removal action was effective in reducing soil PCB concentrations to levels at or below the TSCA definition of 'clean' soils (i.e., containing less than 1,000 ug/kg total PCBs)." However, in several instances as noted in the "Previous Investigations" section, levels slight exceeded the TSCA 1,000 ppb level. This portion of the report should be revised accordingly to reflect this.