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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
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Philadelphia, Pennsylvania 19107-4431

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SEP 30 1997

Mr. James F. Harris
Commander Atlantic Division
Naval Facilities Engineering Command
1510 Gilbert Street
Norfolk, VA 23511-2699

**Ref: Final Administrative Order on Consent
U.S. EPA Docket No. RCRA-III-038-CA**

Subject: Comments on the Department of Navy's Response to Comments on the RCRA Facility Investigation (RFI) Final Report-Phase I (December 1993), the RFI Draft Final Report-Phase II (February 1995), the Final Corrective Measures Study for Petroleum Contaminated Sites (October 1994), and the Excavation, Transportation and Disposal of Petroleum Contaminated Soils report (April 26, 1995) for the Naval Air Station Oceana

Dear Mr. Harris:

The United States Environmental Protection Agency's (EPA) May 16, 1997 comment letter on the above referenced reports required the Department of Navy to provide narrative responses, revisions to the reports (errata sheets) and/or a confirmatory sampling plan. On July 22, 1997, EPA received the confirmatory sampling plan. The Department of Navy submitted the narrative response and errata sheets on August 29, 1997. Comments on the narrative responses and errata sheets are provided below and comments on the confirmatory sampling plan are provided in Enclosure A and B to this letter. The comments in Enclosure A were also faxed to your office on September 26, 1997. Final approval of these documents is granted pending the Department of Navy's commitment to conduct the RFI Phase III investigation and respond to the remaining additional comments in this letter and in Enclosure A and B to this letter in accordance with the requirements of the Final Administrative Order on Consent (Consent Order). Under Paragraph F.14. of the Consent Order, the Department of Navy is allowed sixty (60) days from receipt of EPA's comments to respond to comments on documents. EPA remains available to work with the Department of Navy in an attempt to meet the Department of Navy's October 1997 field mobilization schedule, therefore, EPA suggests that the Department of Navy and EPA work together diligently within the next week to finalize revisions to these reports and the sampling work plan. As discussed during previous conversations, EPA intends to enter into an Interagency Agreement with the United States Army Corps of Engineers (USACE) Norfolk District to conduct split sampling of all samples collected by the Department of Navy during the proposed October 1997 sampling activity and conduct

oversight of the remedial activities being undertaken at the Facility. The approval of these reports and the work plan is also essential for finalizing this Interagency Agreement.

**Comments on the Department of Navy's August 29, 1997 Response to EPA's May 16, 1997
Comments on the Above Referenced Reports**

General Comments

Comment 2: Appendix I of the November 1995 Final Corrective Measures Study (CMS) ("Current and Future Groundwater Uses") must be revised to provide information on the groundwater uses for the entire facility and/or that is appropriate for the RFI phase of the project only.

Comment 5: The statement made in the last paragraph of the Department of Navy's response regarding the use of "J" qualifiers needs clarification. It is stated that the inorganic data was not validated. However, Section 3-17 - Data Management and Validated and Appendix G of the RFI Phase I Report state that the all data in the report is validated using EPA protocols. Please provide clarification which specifies the reason for not validating the inorganic data and revise all applicable sections which states that the inorganic data is validated.

SWMU 1

Comment 7: See comments on the Sampling Plan in Enclosure A to this letter.

Comment 10: The units for Beryllium detection limit range were omitted.

A residential preliminary risk management decision made for this SWMU was based on: the groundwater/contaminant plume flow direction is towards the residential area north/west, possible access to the SWMU during infrequent patrolling by the Department of Navy personnel, the proximity to the property boundary, and hunting is conducted in a wooded area of this SWMU on a seasonal basis. Unless additional information is provided by the Department of Navy that addresses these concerns, the risk management decision will remain residential.

Comment 11: Additional investigation of the soil is also being conducted under the RFI Phase III confirmatory sampling activities tentatively scheduled for October 1997. See comments on the Sampling Plan in Enclosure A to this letter. In addition, EPA stated in the April 29-30, 1997 meeting with the Department of Navy that further discussion was needed on dioxin-related issues. As a result of this discussion it was determined that while widespread chlorinated dioxin/furan contamination does not appear to be present at SWMU 1, 0.3 ug/kg of hexachlorinated dibenzofuran (HxDBF) was measured in one soil sample. This concentration exceeds conservative screening values for 2,3,7,8-TCDD for both residential (4E-09 ug/kg) and

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industrial users (4E-08 ug/kg (based on a toxicity equivalency factor of 0.1 for HxDBF). In consideration of this and of the insensitive quantitation limits (0.0045 ug/kg to 0.09 ug/kg) for the remaining limited dioxin/furan analysis, the Department of Navy must perform confirmation sampling for dioxin/furan as proposed by the Department of Navy in the RFI Phase III sampling work plan.

SWMU 2B

Comment 12: There is a typographical error in the last sentence of the comment. The text should read, "for turco".

Comment 14: The SW-846 Method 8310 will provide adequate quantitation limits and should be used for the PAH analysis. The SW-846 Method 8270 selected for the SVOC analysis is adequate for the remaining SVOC constituents of concern for this SWMU. (See the general comment 1 of the comments on the sampling plan in Enclosure A to this letter.

SWMU 2C

Comment 20: An errata sheet was not provided as an attachment to this letter although the comment specified that the text of the report should be revised to provide a response to this comment. Please provide an errata sheet with these revisions.

Comment 21: EPA agrees with the Department of Navy's proposal to sample the sediment in the ditch area. In addition, EPA will recommend additional sampling in the areas that drain to the ditch if contaminants are detected in the ditch at levels of concern.

○ Comment 23: Unless the absence of this constituent is verified by additional analysis, the Department of Navy is required to consider 1,1-DCE as a constituent of concern based on the detection of this constituent in the geoprobe analysis. The sampling method selected for the volatile constituents must have a detection limit below the Maximum Contaminant Level MCL for this constituent. Please revise the sampling plan if it is necessary to meet the additional clean up goals established for this constituent.

Comment 24: See the comments on the sampling plan in Enclosure A to this letter.

○ Comment 26: Revise the RFI-Phase II to include the possible reasons for the discrepancy identified Benzene, Ethylbenzene, Toluene, and Xylene (BETX) analytical results (See last paragraph on page 2-6). Also state that these analytical results will be verified by the RFI-Phase III investigation sampling results.

Comment 27: See the comment on the sampling plan in Enclosure A to this letter.

SWMU 2E

Comment 29: The following additional requirement is based on recommendations made as a result of the toxicological review of the CMS for SWMU 2E. Further detailed toxicological comments on the CMS for SWMU 2E will be forthcoming in a comment letter on the CMS 2E/15/24.

The cleanup goals selected by the Department of Navy for implementation were based on industrial use of groundwater. As previously discussed between EPA and the Department of Navy, where MCLs established under the Safe Drinking Water Act are available for specific contaminants, these limits will be used for clean up goals at this Facility.

In addition, cleanup goals were developed for constituents measured in monitoring well samples only. Therefore cleanup goals must be developed for several/additional contaminants measured in the geoprobe samples, or at a minimum, confirmatory samples must be obtained to insure cleanup of these additional contaminants. Note: It was not clear how it was decided which constituents required cleanup; it appears that a simple exceedance of the cleanup goal was the criterion. Please provide the rationale used to decide these cleanup goals and a detailed response addressing the concerns raised in this comment.

SWMU 11

Comment 30: An errata sheet was not provided as an attachment to this letter although the comment specified that the text of the report should be revised to provide a response to this comment. Please provide an errata sheet with these revisions.

Comment 33: The revised table does not provide the depths that the samples were collected. Revise the table to include both the depths the samples were collected and the date of the revision of the table in the footnote.

Comment 34: Table 4-6-5 was to be revised to include detection limits for Polynuclear Aromatic Hydrocarbon (PAH). Please revise the table to incorporate this additional information.

Comment 36: Appendix the June 21, 1995 technical memo to this letter.

SWMU 15

Comment 38: The compiled past soil sampling results along with the additional data from the March 1996 sampling does not adequately address EPA's concern regarding the lack of PAH soil analysis for this SWMU needed to determine the extent of contamination and the site

specific cleanup goals. Therefore, as previously, EPA is requiring that the Department of Navy conduct confirmatory sampling of the soil. The analysis should include SVOC (total PAH analysis is not acceptable for this purpose). The Work Plan for Confirmation Sampling for Site 15 Soil Remediation (September 1997) was received September 24, 1997. EPA will not provide formal comments on this work plan until cleanup goals are established for the constituents of concern. Establishing cleanup goals is essential for selecting sampling methods with detection limits that are not above the established cleanup goals. This information is normally provided in design proposal for the remediation activity selected. However, to date, EPA has not received a formal design proposal for this remediation activity at this SWMU, although requested on several occasions during the year that this remediation activity be implemented. Design proposals also usually contain valuable information such as, specifications identifying the location of the excavated soil in a specific stock pile area, the runoff containment procedures, etc., that is needed to fully evaluate the confirmatory sampling work plan. Please provide a formal final design plan for this SWMU.

Comment 39: Specify the constituents for which the samples were analyzed.

- Comment 40: The narrative response did not provide an explanation for the high detection (67,000 ppb) limit for PAH analysis reported. Also, see the response to comment 38 above. It is also not clear: 1) whether the data from the six samples (one of the six samples was collected from a subsurface soil depth, the remainder were shallow soil samples) are representative of the entire area since the majority to the PAH contamination is estimated to be subsurface based on the history of the SWMU as an underground storage tank (UST) area and 2) how the limits of excavation was determined or achieved. Please provide a detailed response to this comment and comment 38.

Comment 41: Please provide a technical explanation describing how the GP30 sampling location is considered to be only situated along the up-gradient edge of the SWMU if the groundwater flow direction is estimated to be variable (north/northwestern in October 1994 and radial and southwestern direction in March 1995). Explain why the north/northwestern ground water flow direction is the prevailing groundwater flow direction.

Based on the high total petroleum volatile (TPV) concentration detected (565,898 ppb) (the dilution of the sample because of gross contamination may have caused some compounds to go undetected), and because only one round of data was used for the contaminant screen and vinyl

chloride is known as a daughter compound of chlorinated volatile hydrocarbons, the Department of Navy must monitor for chlorinated volatiles under the long term groundwater monitoring program to verify its presence.

Comment 42: The RFI-Phase 1 report was to be revised to state that uncertainty exist regarding the groundwater flow direction and will be further evaluated during the CMS phase of the project and the development and review of the groundwater monitoring plan for SWMU 15.

Comment 43: Long term groundwater monitoring planned for SWMU 15 may identify the emergent wetlands as a possible target of the contaminant plume. If this wetland is identified as a receptor, additional evaluation may be necessary.

SWMU 16

Comment 44: Define the data qualifying terms "U" and "J" on Table 4-8-1B.

Correct the typographical error. "Precluding serious erosion." was omitted from the errata sheet but was written in the response for comment 44.

SWMU 18

Comment 45: An errata sheet was not provided as an attachment to this letter although the comment specified that the Health and Environmental Assessment Section of the RFI-Phase I Report be revised to include a discussion stating that benzo(b)fluoranthene and indeno(1,2,3-cd)pyrene exceed the industrial RBC. Please provide an errata sheet with these revisions.

See the Comments on the Sampling plan in Enclosure A to this letter.

Comment 46: A narrative description of the location and the findings of the additional investigation for the SWMU 2E well installed in the area of SWMU 18 was not provided. Please provide a discussion describing the relationship between the contamination detected at SWMUs 2E and 18 based on the groundwater flow characteristics. If a contaminant plume has been discovered beneath SWMU 18, will it be addressed with SWMU 2E's groundwater remediation?

Comment 49: A narrative description that clearly delineates the areas of excavated soil and identifies the location where the samples were collected was not provided. Please revise the report providing this narrative description.

SWMU 19

Comment 50: It is difficult to distinguish between the symbols used to represent the adult and the family residential areas on Figure 2 of Appendix I of the CMS 1/2B/2C. It is also difficult to distinguish between the red, yellow and white shaded areas representing the operations, medical,

Table
Location
depths
Army Data
7/24/11

maint. prod., UOPH UEPH, ord. Stor. Recreation, vegetation open outlease agric and use of restricted by AFLD ORD safety criteria. In addition, the acronyms used on this figure were not defined. Please revise the map.

Comment 51: On the attached figure provided showing an UST corrective action plan for the NEX station near SWMUs 19 and 20, please revise the figure to identify the location of SWMUs 19 and 20 with the geoprobe locations (19-GP1 and 20-GP1) in relations to the NEX station.

- Comment 53: Specify what decisions were made during the excavation activities at this SWMU. Revise the report to include this additional information.

SWMU 20

Comment 54: Specify the approximate location of the tanks used to store the engine cleaner inside the building and outside the building.

- Comment 57: Specify specifically what decisions were made during the excavation activities at this SWMU. Revise the report to include this additional information.

SWMU 21

Comment 59: The sampling plan specifies that the sample collected at the drainage ditch area will be collected at a depth of 0-0.5 feet. This information appears to have been from this narrative response. Please clarify why this information was omitted and whether the sample will be collected from a depth of 0-0.5 feet.

- Comment 60: An explanation was not provided for not collecting any samples from the off-site drainage pathways. Please provide an explanation.

SWMU 22

Comment 61: An errata sheet was not provided as an attachment to this letter although the comment specified that the text of the report should be revised to provide a response to this comment. Please provide an errata sheet with these revisions.

Comment 62: An errata sheet was not provided as an attachment to this letter although the comment specified that the text of the report should be revised to clarify the Department of Navy's response to this comment. Please provide an errata sheet with these revisions.

SWMU 23

Comment 66: Specify the location of the drop inlets in the pavement and the drainage ditch that are referred to in the second paragraph of the Department of Navy's response to this comment.

Is the discharge from the drainage ditch and/or station storm water sewers sampled under the National Pollutant Discharge Elimination System (NPDES) Program? If so, please provide the findings of this analysis.

Comment 67: Detection limits were not provided for the PAH analysis in Table 4-14-1 of the RFI-Phase I Report (page 4-194). Please revise this table with the detection limits for the PAH analysis.

SWMU 24

Comment 69: See the comments on the sampling plan in Enclosure A to this letter.

D Comment 70: Specify what decisions were made during the excavation activities at this SWMU. Revise the report to include this additional information.

SWMU 25

D Comment 74: The statistical methods that will be used at SWMU 25 to determine background concentrations of pesticides have not been specified by Oceana. Note that the minimum performance measures for distinguishing site-related pesticide concentrations from possible background pesticide concentrations are a confidence level of 80% and power of 90%. If site-related pesticides are measured in background samples, and resulting coefficients of variation are high, five background samples may not be sufficient to distinguish between site-related and background pesticide contamination.

D The Department of Navy failed to provide a sampling proposal for conducting confirmatory sampling of the groundwater in the area of the landfill. Specifically, at a minimum, EPA required the Department of Navy to perform in-situ geoprobe sampling of the groundwater either down gradient or in the center of the landfill and collect one sample in the location of the in-situ sampling. This sample should be analyzed for Appendix IX constituents.

Provide the locations that the five surface soil samples will be collected and a figure showing these locations.

D Comment 75: EPA RCRA Program uses the National Oceanic and Atmospheric Administration (NOAA) Effects Range-Low (ERL) and Ontario values to screen data for ecological endpoints, not the Region III Biological Technical Assistance Group (BTAG) table. While some of the

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ERL values on the Region III BTAG table originate from the NOAA ERL values, not all do. Please use and reference the NOAA ERL or Ontario values to screen data for ecologic endpoints as directed in EPA's comment.

A typographical error was noted on the Inorganic Compounds in Surface Water Table attached to this letter. The units of mg/kg are incorrect. Revise the table using the correct units.

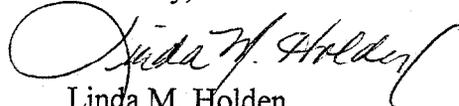
SWMU 26

- Comment 78: Specify when the sample collected at a depth of three (3) feet and referred to in the Navy's response to this comment was collected. Provide a figure showing the location where this sample was collected in relation to the location where the Department of Navy proposes to collect the additional three sample at a depth of four (4) to five (5) feet. Revise the July 1997 sampling plan to incorporate a proposal for conducting this confirmatory sampling at this SWMU.

As we agreed, it would be beneficial to meet or conference by telephone to discuss EPA's comments on the sampling plan and the Department of Navy's response to EPA's comments on the above referenced reports. Please contact me to schedule a date(s) in early October for this meeting or telephone conference.

If you have any questions or concerns regarding the content of this letter, please do not hesitate to contact me at (215) 566-3428.

Sincerely,



Linda M. Holden
Remedial Project Manager
RCRA Operations Branch

Enclosures (2)

cc: Robert E. Greaves, 3HW90
Elizabeth Quinn, 3HW70
Jack Hwang, 3HW70
Russel McAvoy, VADEQ
Will Bullard, Department of Navy
N.M. Johnson, Department of Navy
Jack Robinson, CH2M Hill

ENCLOSURE A