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UNITED STATES ENVIRONMENTAL PROTECTION

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REF: 4WD-ER

Mr. Aturo McDonald
Department of the Navy
Naval Coastal Systems Center
Highway 98
Panama City, Florida 32407

Re: Confirmation Study, Verification Step
Naval Coastal Systems Center
EPA I.D. No. FL8 170 002 792

Dear Mr. McDonald:

We have completed a review of the above-referenced document which we assume was submitted to partially meet Conditions II.A.3 and IIA.4 of the HSWA permit for U.S. Naval Coastal Systems which was effective on December 6, 1985. (We remind you that in the future you must indicate in a cover letter to Mr. Douglas McCurry, Chief of the Waste Engineering Section that the document transmitted is being submitted to meet the conditions of the HSWA permit. Mr. Arthur Linton, the Federal Facilities Coordinator should be copied on that letter.)

Enclosed are our comments on the verification step of the Confirmation Study.

Before proceeding with Step 2, characterization, of the Confirmation Study, the questions contained in this letter must be addressed and more specific information must be submitted about the plans and schedule for implementation of Step 2. Since NCSC has not proposed a schedule as required under Condition II.A.2. of the HSWA permit, these items must be submitted within 45 days of receipt of this letter. Failure to do so may result in elevation of the deficiencies to violation status and may trigger an associated enforcement response for failure to comply with the permit.

Please contact Ms. Elaine Houston, of the Waste Engineering Section, at (404) 347-3433, if you have any questions.

Sincerely yours,

James H. Scarbrough
James H. Scarbrough, P.E.
Chief, RCRA Branch
Waste Management Division

Enclosure

cc: Mr. Robert McVety, FDER
Ms. Gale Evans, Southern Division
Naval Facilities Engineering Command



1. The recommended screen length for monitoring wells is approximately ten (10) feet. The seventeen (17) foot screen length in the wells at your site may affect the quality of monitoring data received.
2. It is mentioned that water from a Floridan aquifer supply well in the housing area was used as the source for drilling water for all the monitoring wells since it is unchlorinated. The analysis (Table 4.4-1) of the water from this well shows that a number of metals were detected although they were at levels within primary and secondary drinking water minimum concentration levels (MCLs). It cannot be determined what effect the use of this water had on the analytical results for the existing wells.
3. It is evident from the well sampling logs that the samples were taken on two days. The sampling needs to be performed at uniform repetitions over a period of time in order to obtain an accurate account of contaminant concentrations and groundwater flow direction. This sampling can be performed on an accelerated schedule rather than the normal quarterly sampling requirements.
4. Site 7 was not carried into this verification step of the confirmation study because it is recalled as having been used for disposal of rubble only. However, this site should have been included in this verification step unless precise records from 1954-1958 are available which track what was disposed of at the site.
5. The confirmation study, verification step gives a different groundwater flow direction for each of the seven solid waste management unit areas included. A map should be generated for the entire facility which shows the groundwater flow direction based on actual groundwater elevation data.
6. What investigatory technique will be used to determine the existence or absence of interconnection between aquifers?
7. Typical ranges of hydraulic conductivity values and porosity were combined with average gradients derived from as few as two wells in a particular solid waste management unit area to calculate the groundwater flow rate for that area. The flow rates obtained ranged from 18.5 feet per year to 204.4 feet per year. That great of a difference between flow rates and gradients on a single facility is unusual and should be verified.



8. The chemical results for the ground water, surface water and sediment samples show numbers preceded by a "less than" symbol for the organics and petroleum hydrocarbons and metals, in some cases. Are the numbers shown minimum detection levels for the contaminants? If so, this should be clearly stated in the text. If not, what do they signify?
9. The units of measure for barium are not indicated on many of the chemical analyses tables.
10. It is stated within the text that the presence of several metals in most ground water and surface water samples at the facility (i.e., barium, copper, zinc, iron) is due to the ubiquity of these metals in soils and waters in the area. What information on the area around the facility is available which will support this assumption? Is there sampling data available for soils and waters upgradient of the NCSC facility?
11. It is mentioned that leakage occurred in a diesel gas tank pipeline going from the bulkhead to the tank (1977). It is mentioned that the leak was repaired and a contamination investigation was initiated by NCSC. What were the results of that investigation?
12. It is not required that each solid waste management unit area have a separate background well. At least one background well is required for the facility that is truly representative of background ground water quality in the uppermost aquifer without being affected by the facility.
13. Many of the wells placed around the sites do not seem to be downgradient of the particular site (according to the groundwater flow directions estimated in the text), therefore, their worth is questionable in determining ground water contamination.
14. The cadmium level (23.8 ug/l) observed at monitor well PCY2-4 of Site 2 is more than "slightly" above the drinking water minimum concentration level of 10 ug/l.
15. It is stated that surface water samples for site 2 were not taken in the immediate vicinity of the site because the surface drainageway was mostly dry during the sampling period. As mentioned before, sampling of surface and ground water should be performed over a period of time to account for seasonal variations.
16. It is mentioned on page 5-27 of the study that visible soil staining was evident in an open storage area where a large number of "empty" 55-gallon drums were stacked. What were these drums used for? This area may need to be included as part of Site 2.



The following general comments are related to the contamination assessment summaries and recommendations listed in Section 7 of the study:

- 1) There is not enough verified data to exclude any of the sites (including Site 7) from the characterization step (Step 2) of Confirmation Study.
- 2) Information on the existing landfill cover materials and design should be included in the study for our evaluation. The covers may need to be upgraded for the purposes of corrective action.
- 3) Prior to the initiation of Step 2 of the Confirmation Study, information must be submitted on the exact location of wells proposed for further characterization of the sites. The number of wells proposed in Section 7 will not be enough to characterize a plume both vertically and horizontally. The well cluster (wells of varying depths) proposed for Site 4 may be needed in other areas to determine vertical extents of contamination. As mentioned before, the wells should not have screens greater than ten feet in length.
- 4) The vertical and horizontal extent of removal must be determined by the measure of Extraction Procedure toxicity contaminants and organic contaminants above background levels, not by visible contamination. Soil sampling for characterization should be performed on a grid. Please submit more details (and a sketch) about how random grid sampling will be done for all sites.
- 5) Annual ground water sampling is not acceptable for any site at which a contaminant has been detected at any level.
- 6) Many of your recommendations involved submitting closure plans to FDER sites that have been out of use since the 1950's, 60's and early 70's. These sites are not RCRA regulated units requiring RCRA closure plan submissions to the State. These sites are solid waste management units as defined in the hazardous and Solid Waste Amendments to RCRA. Although closure plans may be submitted to the State, the final corrective actions will be approved under the terms of the HSWA permit issued by EPA. The state is not authorized for HSWA at this time.

