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NWS EARLE
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U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Ocean Resources Conservation and Assessment
Hazardous Materials Response and Assessment Division
Coastal Resources Coordination Branch
Room 1831
290 Broadway
New York, New York 10007

March 2, 1998

Sharon Jaffess
US Environmental Protection Agency
Emergency and Remedial Response Division
NJ Remediation Branch
290 Broadway, 19th Floor
New York, New York 100

Dear Sharon,

Four Federal Facility Naval Weapons Station Earle documents have been submitted to the National Oceanic and Atmospheric Administration (NOAA) for review. Comments are offered on the following documents:

- Remedial Investigation Addendum Report for Naval Weapons Station Earle, Colts Neck, New Jersey, January 1998.
- Reply to EPA Comments on the Navy's Remedial Investigation Addendum Report (February 1997)
- Feasibility Study for Site 13 (OU-5), Naval Weapons Station Earle, Colts Neck, New Jersey, Comprehensive Long-Term Environmental Action Navy (CLEAN) Contract, December 1997.
- Feasibility Study for Sites 3 and 10 (OU-6), Naval Weapons Station Earle, Colts Neck, New Jersey, Comprehensive Long-Term Environmental Action Navy (CLEAN) Contract, December 1997.

Background

Naval Weapons Station Earle (NWS Earle or the Site) is located in the east central portion of Monmouth County, NJ. The facility supplied ammunition to the U.S. Naval fleet. The Site was also used by the U.S. Army for field training exercises. Contaminants of concern (COCs) include semi-volatiles, pesticides, PCBs, and inorganics. The primary pathways for contaminant migration from the Site are surface water runoff, groundwater discharge, and direct discharge into surface water drainage ditches.

The northern half of the Main Base drains to Swimming River via Mine Brook, Hockhockson Brook, or Pine Brook. Anadromous alewife and blueback herring are known to migrate into Swimming River. The river is tidally influenced below its confluence with Pine Brook and flows

another 4 km to the Navesink River. Trust species present in the Navesink River include striped bass, alewife, blueback herring, menhaden, bluefish, American eel, winter flounder, and blue crab. Resource utilization is primarily foraging with some spawning of winter flounder and blue crabs. The southern portion of the Main Base drains to the Manasquan River via Shark River, Marsh Bog Brook, or Mingamahone Brook. American eel, alewife, white perch, and blueback herring are probably present in the upper reaches of the Manasquan River and may migrate to Mingamahone Brook.

Site 3, located within the Manasquan River drainage basin, was used for disposal of domestic and industrial wastes including paints, varnishes, solvents, acids, alcohols, caustics, and pesticide containers.

Site 10, located within the Swimming River drainage basin, was used for disposal of demilitarized munitions and spent munitions cases consisting primarily of aluminum and steel containers.

Site 13, located within the Swimming River drainage basin, was used for storage and burial of scrap metals, batteries, electronic equipment, and trucks. Lead recovery from batteries was conducted at Site 13 and battery acid was drained onto the ground.

Summary

NWS Earle Response to Comments - Remedial Investigation Addendum February 1997

These comments correspond to an EPA memo on the supplemental investigation into seven of the twenty-seven sites. NWS Earle continues to support terminating the ecological risk assessment at the screening-level. They also continue their use of human health type comparisons for selecting COPCs (i.e. Upper Tolerance Limits for soils and groundwater) rather than comparing maximum media contaminant concentrations to screening level criteria.

Remedial Investigation (RI) Addendum January 1998

Seven sites (Sites 3, 6, 12, 13, 16/F, 17 and 26) were investigated during these supplemental studies. The January 1998 subject document revises the February 1997 submission, previously commented to by NOAA (3/28/98).

Feasibility Study (FS) for OU-5 (Site 13)

The following Remedial Action Objectives (RAOs) were selected for OU-5: (1) prevent human exposure to volatiles and metals in groundwater, (2) prevent ecological receptors and humans from contacting landfill contents, and (3) minimize migration of landfill contaminants to adjacent wetlands.

The following remedial alternatives were evaluated for Site 13:

- *Alternative 1: No Action.* This alternative would include five-year reviews of contaminant concentrations in groundwater, surface water, and sediment.
- *Alternative 2: Institutional Controls and Long-Term Monitoring..* Groundwater use would be prohibited, periodic monitoring and five-year reviews would be conducted.
- *Alternative 3: Capping, Institutional Controls and Long-Term Monitoring.* A low permeability cap meeting RCRA criteria for municipal solid waste landfills would be installed to prevent human and animal contact with landfill contents. The cap would prevent surface runoff of contaminants. The cap would also prevent infiltration of stormwater, reducing continued contamination of ground-waters. This alternative would include fencing, periodic monitoring, and five-year reviews.

Treatment of landfill soils was considered technically impracticable because of the volume and heterogeneity of the waste and was not evaluated.

Groundwater flow and contaminant transport modeling was conducted to further evaluate the potential impacts of COCs in groundwater at Site 13 after installation of a cap over the landfill. The model was

based on the Remedial Investigation (RI) data, the results of one slug test, and the assumption that the cap would be completely impermeable. Seven inorganics and vinyl chloride were evaluated.

Based on the seven evaluation criteria, it appears that Alternative 3 was selected as the most appropriate of the three alternatives.

FS for OU-6 (Sites 3 and 10)
The following RAOs were selected for OU-6: (1) prevent human exposure to metals in Site 3 groundwater, (2) prevent human and ecological contact with Site 3 landfill contents, (3) minimize migration of Site 3 landfill contaminants to adjacent wetlands, (4) prevent human exposure to Site 10 landfill materials, and (5) minimize ecological exposure to Site 10 corroded metal wastes.

The following remedial alternatives were evaluated for Site 3:

- *Alternative 1: No Action.* This alternative would include five-year reviews and long-term periodic monitoring of groundwater, surface water, and sediments.
- *Alternative 2: Institutional Controls and Long-Term Monitoring.* Exposed debris would be removed, soil would be added to the existing cover, the site would be graded, revegetated, future site use would be restricted, fencing would be installed, and long-term periodic monitoring and five-year reviews would be conducted.
- *Alternative 3: Capping, Institutional Controls, and Long-Term Monitoring.* All former landfill areas would be covered with a low-permeability cap, future use of the site would be restricted, and long-term and five-year reviews would be conducted.

The following remedial alternatives were evaluated for Site 10:

- *Alternative 1: No Action.* This alternative would include five-year reviews and long-term periodic monitoring of groundwater, surface water, and sediments.
- *Alternative 2: Institutional Controls and Long-Term Monitoring.* Future site use would be restricted, fencing would be installed, and long-term periodic monitoring and five-year reviews would be conducted.
- *Alternative 3: Capping, and Institutional Controls.* All former landfill areas would be covered and future use of the site would be restricted.

It is unclear which alternative was selected as most appropriate for Sites 3 and 10 although any active remediation appears to be driven by human health considerations.

General Comments:

NOAA's primary concern with NWS Earle's response to EPA comments, the revised Remedial Investigation Addendum and the two Feasibility Study documents is their continued failure to seriously address ecological risks from site-related contaminants. Remedial alternative evaluations are based upon the RI conclusion that the Site poses an insignificant ecological threat.

Our specific remarks on the subject documents are limited to the three sites (#3, 10, and 13) covered by the FS documents. We have not re-evaluated the January 1998 RI Addendum nor the respondents' comments to the February Addendum for sites not covered by the FS's under review. None the less, any statements on overall approaches address all sites.

Of paramount importance are the incorporation of RI findings into the Feasibility Study (FS) documents without an adequate and appropriate assessment of ecological risks posed by the Site. Cumulative impacts from the various operable units have not been evaluated inspite of repeated requests by BTAG and NOAA. While the OU-6 FS is comprised of Sites 3 and 10, Site 3 is located within the Manasquan River drainage basin while Site 10 is within the Swimming River drainage basin. We recommend examining the impacts

of Sites ~~3~~ 10 and 13 together since both have the potential to impact the Swimming River drainage basin because of migration pathways to the Hockhockson River.

A quantitative ecological risk assessment (ERA), including sediment toxicity and tissue residue analysis, has not been conducted for any of the operable units. While this may not be necessary, the threat to ecological receptors from the release or threatened release of a hazardous substance has not followed EPA guidelines. It is apparent that NWS Earle is confusing the protocols for conducting an ERA with a Human Health Risk Assessment (HHRA). The approach used to derive contaminants of concern to ecological receptors is different from that taken in an HHRA. The two approached could be a different list of contaminants of potential concern to ecological and human receptors. We refer NWS Earle to the EPA 1997 ERA guidance document. Without a full ecological characterization conducted according to guidance, we believe it is premature to respond to the overall risk posed by the Site or to terminate the ecological risk evaluation at the screening level. Capping of the landfills and restricting use of groundwater may not protect ecological receptors from contamination that may have already migrated to ecologically sensitive areas on- and off-site nor may it prevent future migration if the groundwater comes in contact with the contaminated soils and wastes in the landfill. Only through appropriate assessment of these resources can we fully evaluate remedial alternatives for this Site.

Throughout the documents, contaminant concentrations were compared to background levels. In other areas, the text often refers to low detections of contaminants but does not define how this qualitative assessment was determined. For ecological risk assessments, concentrations of contaminants should be compared to appropriate screening level criteria, not to background concentrations. For sediment, concentrations should be compared to the Ontario Ministry of the Environment (Persaud et al. 1993) Lowest Effect Levels (LELs) and the Severe Effect Levels (SELs) or the NOAA (Long and Morgan 1990) Effect Range-Low (ER-L) and Effect Range-Median (ER-M) values if freshwater guidance are unavailable. Where guidance values are per unit organic carbon, sample-specific TOC should be used. For surface water, concentrations should be compared to the EPA chronic freshwater Ambient Water Quality Criteria (AWQC) and/or applicable New Jersey Water Quality Standards (NJWQS), whichever is more stringent. Where criteria require hardness corrections, sample-specific hardness should be used. For groundwater potentially discharging to surface water and the marsh, concentrations should be compared to chronic freshwater AWQC (taking into account dilution by surface water, if any).

In addition, NWS Earle has not heeded BTAG's (3/27/98) nor NOAA's (3/28/98) comments to the February 1997 RI Addendum on the choice of screening values. For example, the LEL for pyrene and fluoranthene are 490 ppm and 750 ppm, respectively. Yet, the ecological toxicity threshold values for these two analytes, as listed in Table 4-25 (Site 3) and Table 7-5c (Site 10) of the 1998 RI Addendum are both higher than the Ontario guidelines and internally inconsistent. Hence, Hazard Quotients (HQs) for certain analytes were derived using denominators that are neither conservative nor equivalent across sites resulting in underestimates of risk. In addition, Hazard Indices were not calculated for those contaminants whose behavior is mechanistically similar and/or whose presence results in similar ecological effects.

site 3 calc site 10 1996 RI

Supplemental RI sampling was proposed for Site 3 and Site 13. Additional sediment and surface water samples were not collected at Site 13 and no explanation was provided. Based on our review of the subject documents, the extent of contamination in the marsh adjacent to the Site 13 has not been fully characterized. Three sediment samples were analyzed during the 1995 RI. PCB sediment concentrations at 13SD01 (2.2 ppm) and 13SD03 (5.1 ppm) exceeded freshwater screening levels (Persaud et al. 1993). Silver also exceeded its ER-M. Metabolites of DDT while exceeding screening level criteria were rejected because of data quality issues. PAH analysis was not performed on 13SD01 and 13SD03 sediments. BTAG (October 1996) requested that sampling be expanded to fully delineate contaminant migration from the landfill. We fully support this request. To date, this work has not been performed.

Test pits within the Site 13 landfill are restricted to the southern area. Limiting the scope of landfill characterization to four closely placed samples eludes us. According to the FS, PCBs, lead, and silver

were detected in the landfill in 1992. These data should be provided in the document. No soil samples appear to have been collected in proximity to those marsh sediments with elevated contaminants (i.e., PCBs, Ag) either within or outside the landfill boundaries. Until a thorough investigation of the landfill (through random, gridded or stratified sampling) and the marsh has been completed, we cannot recommend moving forward with the Site 13 Feasibility Study. To achieve this goal, TCL and TAL analyses should be performed on soil and sediment samples and on landfill leachate (if available). Detection limits must be lower than the most conservative screening level criteria. Any contaminants detected above Applicable or Relevant and Appropriate Requirements (ARARs) /To Be Considered (TBCs) or not detected but with detection limits above ARARs/TBCs will be retained as ecological contaminants of concern.

No additional work was proposed or conducted at Site 10 in 1996. The focus of the Site 10 RI was on groundwater contamination. Given that Site 10 is a scrap metal landfill primarily covered with sandy soil rather than an impermeable cap, we cannot understand why other media, especially soil samples were never analyzed. The investigation into Site 10 is therefore lacking and does not support preparation of an FS.

Another issue, is the release of the Remedial Investigation Addendum in January 1998, after submission of the FS for review. NOAA should be afforded the opportunity to review the remedial documents in the correct order. In this case, the review of the FS had begun before EPA (and therefore NOAA) received the RI Addendum, and prior to our receiving NWS Earle's response to the RI Addendum comments. This only serves to complicate the situation and causes further delays in the review process. NWS Earle should be directed to submit documents in the proper order. A concise summary of the Remedial Investigation findings should be presented in the Feasibility Studies. For example, review of the FS would be facilitated if all the data (soils, sediment, surface water, groundwater) obtained throughout the site investigations were summarized in a table. Schematics summarizing exceedances of screening levels should be revised to reflect recommendations described above.

FS Comments

The remainder of our memorandum is directed toward the FS documents. The comments offered should not be interpreted as an acceptance of these submissions. Rather they are presented here so they may be incorporated into the revision once the outstanding issues related to the RI are resolved.

The aquatic receptors located downstream of the Site are discussed in Section 1.1 - Site Description and Setting - but are never discussed in the Ecological Risk Assessment sections of these documents. Risk posed by site-related contaminants identified in surface water, sediment, and groundwater (potentially discharging to surface water) should be discussed. In addition, a discussion of threatened and endangered species potentially impacted by Site releases is lacking from the ecological risk assessment sections.

Tables 1-10 through 1-14 (Sites 3 and 13) and Tables 1-15 through 1-16 (Site 10) show the occurrence and distribution of contaminants (background concentration, range and frequency of detection, and representative concentration) in various media. For ecological assessments, maximum concentrations and appropriate screening values (ER-Ls, LELs, AWQC, etc.) should be compared and reported in tabular format. If representative concentrations remains as the column heading, "representative" should be predefined as maximum concentrations. For example, maximum concentrations are not always reported as representative concentrations in Site 13 Table 1-12. Further, the use of background concentrations to evaluate ecological risk for any media is inappropriate. NWS Earle is also directed to refrain from using benchmarks based upon equilibrium partitioning where more conservative values are available.

OU-5 and OU-6 FS Tables 1-4 through 1-8 provide a statistical evaluation summary of background groundwater, surface soil and subsurface soil data. EPA Region II test (2X background arithmetic mean) replaced the 95% Upper Tolerance Limit (UTL) when the UTL was considered impractical due to small sample size and moderate to high lognormal standard deviation. The 95% UTL or substituted value

presented in these tables were compared to maximum water or soil concentrations. For all media (Tables 1-5 through 1-8) the sample size was less than or equal to 4 and numerous non-detects were reported (1/2 t o 3/4 of the samples). There is insufficient data for statistical evaluation - UTLs should not be calculated. While background concentrations are considered in human health risk assessments, the appropriateness of the method utilized should be further evaluated by a human health risk assessor. For ecological risk assessments, groundwater concentrations should be compared to ARARs not background concentrations.

It is not clear from review of these documents whether the landfills are ever in contact with the water table. Static water level measurement summaries are provided in FS tables (i.e. Sites 3 and 13 FS Table 1-9, Site 10 Table 1-15). Depth to the water table from below the top of the PVC riser is given for each well but the distance between the top of the riser and ground level, the depth of the landfills below the surface or distance between the bottom of each landfill and maximum elevation of the water table is not. A clearer presentation is warranted including a seasonal description of water table elevation/fluctuation. If the landfill materials or contaminated subsurface soils contact the water table, capping alone may not be sufficient to prevent continued contamination of groundwater under or beyond the perimeter of the landfill.

In the tables and text describing ARARs and TBCs, the appropriate ecological guidelines should be listed including the Ontario Ministry of the Environment sediment guidelines, the NOAA sediment guidelines, and the EPA Ambient Water Quality Criteria (AWQC). The guidelines should be redefined as TBCs, as applicable, throughout the document.

Figures depicting contaminants above screening levels should be revised to reflect concerns about the appropriateness of the benchmarks compared against. For example, Site 13 Figure 1-5 provides an incomplete summary of sediment and groundwater results above screening levels. PCBs were detected in sediment samples at up to 3.9 ppm for Aroclor 1254 and 1.2 ppm for Aroclor 1260 but this information is absent from Figure 1-5, giving the impression that PCBs are not a COC.

OWSER directives are listed as a potential federal action-specific TBC (see Table 2-5). It is not clear whether the presumptive remedy (containment) is necessarily a requirement at this Site. We request a copy of OSWER Directives 9355.0-62FS and -49FS to make an independent evaluation of its application for this Site.

The formulation of Remedial Action Objectives is described in Section 2.2 of the FS. RAOs should also reduce or prevent detrimental effects of site-related contaminants to ecological receptors. Consequently, the selected RAOs for protection of the environment outlined in Section 2.6.1 (Sites 3 and 13) and Section 2.7.1 (Site 10) of the FS should be modified. Minimization of migration beyond the landfill perimeter should include the reduction of detrimental effects of site-related contaminants (sediments, surface water, groundwater discharge) to ecological receptors. In addition, at Site 10, exposure to landfill contamination receptors (exposed and unexposed metal wastes, contaminated soils and plants)should be minimized to protect ecological receptors. All contaminants exceeding ecological screening criteria should be addressed by the RAOs.

Ecological risks are considered under Sections 2.6.1 (Sites 3 and 13) and 2.7.1 (Site 10) but the failure to summarize all contaminant media in either the FS or RI Addendum inhibits a complete overview of the results. For example, soil data was not compiled for Sites 3 or 13 (no analysis of Site 10 soils. Based on the data provided, we cannot assess whether overland runoff is the dominant migration pathway to wetlands and streams as hypothesized in the Site 13 FS. We also cannot determine if the COC list developed for each site is complete or whether the potential ecological risks are properly characterized. As such we cannot, at present, accept the no ecorisk interpretation for Sites 3 and 10. Therefore, the apparent development of ecological RAOs at Site 3 is in internal conflict with this documents' determination.

The heading for Section 2.6.2 (Sites 3 and 13) and Section 2.6. (Site 10) is Preliminary Remediation Goals (PRGs) but ecologically protective PRGs were not developed for Sites 3 or 10. Concerns about the

ecotoxicity thresholds set for Site 13 are described elsewhere in our response

High concentrations of metals identified in groundwater samples were justified based on high turbidities during OU-5 sampling (p. 2-24). If these stations were not resampled, the data cannot be discounted. Groundwater concentrations were compared to NJ Groundwater Quality Standards (NJGWQS). The NJGWQS are an order to orders of magnitude higher than freshwater chronic AWQC, even when a 10 x dilution correction factor is employed. For ecological assessments, comparisons should be made against chronic AWQC.

The tables describing risks from COCs (i.e. Site 13 FS Table 2-7) should be revised to include a complete list of ecological contaminants of concern based on proper screening techniques (described elsewhere in this letter). A column that illustrates whether or not the contaminant poses an ecological risk should be added parallel to the existing column identifying the presence, or lack thereof, of a human health risk.

Section 2.6.3 states that "Treatment of landfill soils and materials is considered technically impracticable". An explanation is warranted.

The only groundwater alternatives considered were no action, natural attenuation, and limited action which includes institutional controls and monitoring. Each of these alternatives is essentially a no action alternative. A treatment alternative must be considered in the evaluation process.

Specific Comments on FS for OU-5 (Site 13)

One sediment and surface water sample was collected from Hockhockson Brook during the OU-5 1995 RI. These results are not supplied in the RI Addendum and only mentioned in passing in the FS narrative. Concentrations, grain-size and TOC should be reported so we can assess the acceptability of the data: is the sediment sample from a depositional area?, is Ag in surface water in exceedance of ARARs/TBCs?, etc. We do not understand the rationale for excluding PCBs from these analyses, for not obtaining PCB Hockhockson Brook data in 1996 based on 1995 sediment findings or for reaching decisions based on a sample size of one. We do not accept the FS conclusion that downstream migration of PCBs is highly unlikely because of the potential for higher-chlorinated PCBs to be bound to organic carbon. As stated above, further delineation of PCB contamination is a prerequisite before we can finalize our evaluation of a proposed remedy at Site 13.

On p.1-22, "chromium" should probably be replaced with "cadmium" since concentration of chromium exceeded the LEL, not cadmium.

The cap proposed under Alternative 3 should be designed to meet RCRA Subtitle C requirements for hazardous waste landfills (40 CFR 264.310). The RCRA municipal solid waste standards would not be appropriate since the landfill contains hazardous wastes rather than municipal solid wastes.

It is not clear why removal of the contaminated soil/material and disposal off-site was eliminated from consideration in the alternative analysis or why treatment of contaminated groundwater was not considered. A more comprehensive evaluation of alternatives should be conducted which includes excavation of contaminated soils/sediments and treatment of groundwater. Prohibiting use of groundwater for human consumption will not protect ecological receptors from contaminated groundwater discharge. Capping will not reduce contaminant concentrations in groundwater in direct contact with contaminated landfill wastes and soils.

In the remedial technology selection process, the composite cap was eliminated because it was considered to be not substantially more protective since leaching does not appear to be a major problem and groundwater contamination is considered to be low (p. 2-39). How were these conclusions reached? Groundwater is contaminated with metals and VOCs at concentrations greater than the NJGWQSs. Also, data supporting insignificant leaching should be provided.

The Removal and Disposal alternative was eliminated but retained for hot spots. However hot spots have not been identified on the landfill due to inadequate characterization. More sampling is required to identify the source areas for silver and PCBs identified in sediment samples in the wetland at the foot of the landfill.

The Removal and Disposal alternative should be retained for screening. Table 3-2 should include this alternative.

In each of the soil remedial alternatives, long-term monitoring is included. The monitoring involves sampling of media for site-specific contaminants but only mentions VOCs and metals. Long-term sediment sampling should include PCBs.

The groundwater modeling should evaluate the transport and concentrations of all contaminants of concern, including those of concern to ecological receptors. Only contaminants of concern to human health were modeled. Methylene chloride and tetrachloroethene were not modeled although they apparently were detected in groundwater at concentrations up to ten times the Maximum Contaminant Levels (MCLs) and trichloroethene was detected at concentrations up to 30 times the MCL.

The assumptions of the groundwater model include a permeability rate of 0 inches per year. This is an overly conservative estimate especially since a low permeability cap is being evaluated. The concentrations of all contaminants at the exposure point defined as the stream about 500 feet downgradient, are assumed to be 0.0 ug/L. The model assesses contaminant concentrations at the exposure point over time but fails to assess concentrations beneath the landfill or between the landfill and the stream.

Based on the groundwater model, it appears that the groundwater concentrations will remain basically unchanged for 1000 years for all contaminants except vinyl chloride. The decision to leave the groundwater untreated is based on vinyl chloride . The authors interpreted the model output to demonstrate that groundwater vinyl chloride would fall below the MCL in approximately 45 years. It is unclear how this conclusion was reached. Based on the data sheets provided in the appendix, the groundwater will attain the NJGWQS for vinyl chloride at the source area in 18 years and will never exceed the standard at the exposure point. For all other contaminants modeled, there is basically no change in groundwater concentration at the source area or the exposure point over 1000 years. Hence, most of these groundwater inorganics would exceed MCL, NJGWQS and/or the drinking water health advisory in the source area unless groundwater remediation was implemented.

Specific Comments on FS for OU-6 (Sites 3 and 10)

The remedial goals for these areas were not based on protection of ecological receptors because no risk was determined based on inappropriate screening. The HQs for these areas should be recalculated using the correct screening values. Metals and SVOCs in Site 3 sediments exceeded Ontario LELs. Pesticides in soils at Site 3 exceeded Ontario LELs. Metals in groundwater exceeded EPA chronic freshwater AWQC and zinc exceeded the criterion by a factor of over 10. The drainage ditch leading from site 10 to Hockhockson Brook and the forested wetlands at Site 10 were eliminated from concern based on the inappropriately calculated HQs. Contaminated groundwater which is likely to discharge to the drainage ditch contains elevated metals include lead, chromium, arsenic, and cadmium.

The Removal and Disposal alternative should be evaluated for Sites 3 and 10.

NOAA welcomes the opportunity to offer technical assistance on this site. Should you have any questions regarding these comments, please feel free to contact me at (212) 637-3259.

Sincerely,

Lisa Rosman

Lisa Rosman
NOAA Coastal Resource Coordinator

cc: Michael Clemetson, BTAG
Gina Ferreira, ERRD/SPB
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