



DEPARTMENT OF THE NAVY
BASE REALIGNMENT AND CLOSURE
PROGRAM MANAGEMENT OFFICE, NORTHEAST
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PHILADELPHIA, PA 19112-1303

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NAS BRUNSWICK
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BPMO NE/DK
Ser 07-063
May 3, 2007

Ms. Christine A.P. Williams
Federal Facilities Superfund Section
United States Environmental Protection Agency (EPA)
1 Congress Street, Suite 1100 (HBT)
Boston, MA 02114-2023

Ms. Claudia Sait
Maine Department of Environmental Protection (MEDEP)
Bureau of Remediation and Waste Management
State House, Station 17
Augusta, ME 04333-0017

Dear Ms. Williams and Ms. Sait:

**SUBJECT: SITE 9 DRAFT LETTER WORK PLAN, NAVAL AIR STATION
BRUNSWICK, ME**

This letter is in response to the EPA comments dated April 17, 2007 and the MEDEP comments dated April 23, 2007 on the subject Letter Work Plan (LWP).

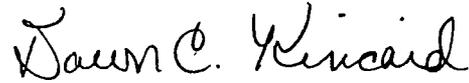
Project Managers for the EPA, MEDEP, and Navy participated in a conference call on April 25, 2007 during which the Navy presented its plan to address the hazardous waste (HW) pile and the adjacent ash piles #7 and #8. Attachment 1 is the Navy's email record of that conference call.

The Navy prepared an Action Memorandum (Action Memo) for this site dated April 11, 2006, prior to discovering of HW at the site. In order to document this new finding, the Navy is providing an updated Action Memorandum, dated May 3, 2007, Attachment 2.

Attachment 3 is the Navy's response to the remaining comments. The Navy will finalize the letter work plan (LWP) and submit the final LWP with an updated project completion schedule upon your concurrence with these responses.

If you have any questions or comments, please contact me at (215) 897-4915, or Lonnie Monaco at (215) 897-4911. Your continued timely attention to this matter is greatly appreciated.

Sincerely,

A handwritten signature in black ink that reads "Dawn C. Kincaid". The signature is written in a cursive style with a large initial 'D' and 'K'.

Dawn C. Kincaid, P.E.
BRAC Environmental Coordinator
By direction of BRAC PMO

Copy to:

BNAS (Lisa Joy, Dale Mosher)

Lepage Environmental (Carolyn Lepage)

NAVFAC Mid-LANT (Lonnie Monaco, Joe Gallant, Horst Hinz, Bonnie Capito)

ECC (Al Easterday)

Monaco, Orlando J CIV NAVFAC MIDLANT

From: Monaco, Orlando J CIV NAVFAC MIDLANT
S nt: Thursday, April 26, 2007 10:15 AM
To: Christine Williams; Claudia Sait
Cc: Joy, Lisa M CIV NAS Brunswick, N45; Mosher, Dale CIV NAS BRUNSWICK, Environmental; Kincaid, Dawn C CIV OASN (I&E), BRAC PMO NE; Gallant, Joseph P CIV NAVFAC MIDLANT; Ganter, William R CIV NAVFAC MIDLANT; McDonald, Lucie J CIV NAVFAC MIDLANT; Hinz, Horst J CIV NAVFAC MIDLANT
Subject: NAS Brunswick Site 9 HW Pile Discussion

Hi,

This is to confirm our discussion yesterday regarding the handling/disposal of the HW pile and the adjacent piles #7 and #8.

Before Work Starts - The LWP needs to be finalized (Disposal of CDD pile #5 can continue). The Navy will estimate the extent of the HW pile under the adjoining piles #7 and #8 based on the height of the HW pile and assumed angle of repose.

Start of Work - The contractor will extend the northern site boundary as needed to provide additional staging area. He will remove the amount of ash material from piles #7 and #8 necessary to isolate the HW pile (based on the calculation, above, and visual inspection). This material will be staged in 500-ton segments and treated as hazardous waste, with all necessary precautions taken (bottom liner, erosion controls, cover, signs, etc). Both Navy and regulatory inspectors will then determine whether the HW pile was kept isolated from the adjacent piles based on the presence/condition of its cover. If they determine it had been, the re-staged material from piles #7 and #8 will be sampled as described in the final LWP and disposed of accordingly. If they determine it had not been, the re-staged segments from piles #7 and #8 will be treated as hazardous waste and disposed of along with the original HW pile (without additional sampling). The remaining ash material of piles #7 and #8 will be restaged into 500-ton piles in the area presently occupied by CDD pile #5, sampled, and disposed of accordingly.

Please note: Yesterday's discussion had 3 assumptions:

- the contractor will be able to perform the work as described. This may need adjustment if any of the work/approach described in separating the HW pile from the surrounding ash material is too simplistic. Navy and the contractor will be discussing this as early as this afternoon. I will inform you of any changes.
- piles #7 and #8 are staged in 5 distinct sections or "humps". I was informed today that there no real distinction visible in piles #7 and #8.
- there will be ash material of piles #7 and #8 remaining.

Please let me know of any corrections/changes.

Thanks,
Lonnie

ACTION MEMORANDUM

PURPOSE and PROGRAMMATIC HISTORY

The purpose of this Action Memorandum is to document, for the Administrative Record, the Department of the Navy's decision to undertake a non time-critical removal action (NTCRA) for ash landfill material at NAS Brunswick Site 9. The Department of Defense has the authority to undertake CERCLA response actions, including removal actions, under 42 USC 9604, 10 USC 2705 and federal Executive Order 12480.

The proposed action will substantially eliminate the identified pathways of exposure to hazardous substances and contaminants of concern in soils. This NTCRA is anticipated to be the final cleanup action for soils, with continued monitoring of the groundwater.

The proposed NTCRA for this site is deemed consistent with the factors set within the NCP 40 CFR Part 300. There are no nationally significant or precedent setting issues for this site.

This revision to the original Action Memorandum dated 11 April 2006 is necessary to incorporate into the document the existence of RCRA regulated hazardous waste not known to be present prior to the start of excavation in April 2006.

The following supplemental documentation was prepared with assistance from Orlando Monaco, PE, Remedial Project Manager, Naval Facilities Engineering Command, MidAtlantic.

SITE CONDITIONS AND BACKGROUND

Site Description

Site 9 is approximately 20 acres in size. The site is generally flat, although two steep-sided stream channels are located in the southern portion of the site. The streams are now partially flooded, creating two surface water impoundment ponds which form the southern boundary of Site 9. Buildings, roadways, parking areas, and lawn cover the majority of the site. No areas of archaeological or historical importance are known to be present.

The Site 9 area is underlain by fine to medium sand at depths ranging in thickness up to 40 ft. The sand unit decreases in thickness from east to south. Underlying the sand is a transition unit composed of fine sand and silt with clay. A clay unit underlies the transition unit and extends to an undetermined depth. The depth to bedrock at the site has not been determined.

Groundwater occurs at the site at a depth of less than 20 ft below ground surface, and is unconfined. Based on groundwater elevation data gathered during the Long-Term Monitoring Program, the groundwater flow direction is generally toward the northern unnamed stream and surface water impoundment ponds. Groundwater is believed to discharge to the unnamed stream and surface water impoundment ponds.

The Neptune Drive Disposal Site (Site 9) is located in the central portion of NAS Brunswick. Site 9 was identified as a potential hazardous waste site in the Initial Assessment Study and was later included in the Pollution Abatement Confirmation Study (R.F. Weston Inc. 1983; E.C. Jordan Co. 1985). Site 9 has been defined as three areas of potential concern.

- The former location of an incinerator in what is now the northeast corner of the former location of Building 220, and an inactive ash landfill/dump area in the former location of Buildings 218 and 219 (military barracks north of Neptune Drive)
- A reported disposal area behind the former location of Building 201 (the dining facility south of Neptune Drive).
- Two streams/impoundment ponds bordering the recreational area east of the former location of Building 201, which have iron oxide staining characteristic of leachate.

Based on the results of groundwater, surface water, and sediment samples collected during 25 monitoring events completed to date, the Long-Term Monitoring Program at Site 9 has been focused on site groundwater north of the unnamed streams. Groundwater is impacted by several VOCs, particularly vinyl chloride, which has been reported in samples from site monitoring wells.

Former Incinerator and Ash Landfill/Dump Area

The Initial Assessment Study (R.F. Weston, Inc. 1983) identifies this area as the "first dump area used at the Air Station." The incinerator was apparently operated during a period commencing on or after April 1943 when Naval Air Station was commissioned, until the fall of 1946 when the Air Station was demobilized. The incinerator could have been used as late as 1953, when the barracks (demolished) that previously occupied the location of the former incinerator, were built. The Initial Assessment Study states that during the period the incinerator was in operation, solid wastes were burned and the ash was placed in the dump. Wastes disposed of at this location reportedly included solvents that were burned on the ground, paint sludge, and possibly wastes from the Metal Shop. Current land use is a vacant lot following demolition of the barracks.

NPL Status

EPA officially recognized the waste disposal locations at NAS Brunswick as possibly needing investigation in 1983. During the late 1980s, NAS Brunswick was placed on the National Priorities List (NPL). The Federal Facility Agreement between the EPA, MEDEP, and the Navy, was negotiated and signed in 1990.

PREVIOUS INVESTIGATIONS

Site History

The Navy conducted field activities and environmental sampling in 1988 as part of the remedial investigation for Site 9 to determine the geologic and hydrologic conditions and the distribution of contamination at this site. The focus of these investigations was on the area

south of Neptune Drive, including Building 201 and the two unnamed streams. The results of these investigations are presented in the Draft Final Remedial Investigation Report (E.C. Jordan Co. 1990). The Navy conducted additional investigations in 1990 at Site 9, including test pitting and soil and groundwater sampling. Data from this program did not uncover evidence of a solvent burning or disposal area(s) near Building 201.

In 1991, NAS Brunswick personnel learned of the presence of a septic system east of Building 201. This septic system was installed in 1952 when Building 201 was built, and was used until 1972 when Building 201 was connected to the base-wide sewer system (E.C. Jordan Co. 1991). The septic system, located upgradient of the most highly contaminated monitoring wells, was then speculated to be the primary source of groundwater contamination at Site 9, prompting further investigation of this area.

In January-March 1993, the Navy conducted additional investigations to evaluate the Building 201 septic system as a potential source of contamination and to address data gaps identified by EPA and MEDEP concerning the northern portion of Site 9. The results of these investigations are summarized in the Technical Memorandum (ABB-ES 1994c). Results of sampling and analysis in 1993 indicate that the septic system and subsurface soil around the septic system are not acting as a current source of groundwater contamination. As such, remedial actions developed and presented in the Feasibility Study report for removing, containing, or treating the septic system or subsurface soil were no longer considered necessary (E.C. Jordan Co. 1992).

In 2003, the Navy conducted an additional direct-push investigation to address data gaps identified in response to MEDEP and EPA comments regarding the Site 9 Long-Term Monitoring Program. The objectives of this direct-push investigation included the following:

Assess the potential for a contributing source of 1,2-dichloroethene and other VOCs in groundwater, which have been detected at MW-NASB-227

Collect geological data to assess the nature, lateral extent, and depth of the ash landfill/dump area at Site 9.

From May through June 2003, 9 direct-push borings were completed to sample groundwater and assess whether VOCs may be entering the site from the west. Borings were advanced until each encountered the Presumpscot Clay. Groundwater samples were collected from each of the 9 direct-push borings, ranging from 2 to 4 sample intervals per boring location. A total of 30 groundwater samples were collected and sent for laboratory analysis of VOCs by EPA Method 8260B. Two VOCs were detected in 3 of 30 groundwater samples. The results of this investigation did not indicate that significant concentrations of VOCs are entering the site from the west.

A total of 30 direct-push borings were advanced in the area of the ash landfill/dump area underlying the former Barracks Buildings 218 and 219 at Site 9 to delineate the actual extent of debris that may be present. Waste material was encountered in 17 of 30 borings and included brick, glass, cinders, electrical wiring, asphalt, and trace amounts of ash and fly ash. It is estimated that the ash material accounted for less than 5 percent of the total waste matrix. The lateral extent of the ash landfill/dump material covers approximately 1.3 acres

and varies from 1 to 8 ft in thickness. The ash landfill/dump material was encountered from 4 to 19 ft below ground surface. The estimated volume of the ash landfill/dump area (excluding the overlying material) is approximately 16,000 yd³ (EA 2004). Soil samples were collected from several of the borings for VOCs by EPA Method 8260B (field preserved by EPA Method 5035), semi-volatile organic compounds (SVOCs) by EPA Method 8270C, and Target Analyte List metals by EPA Method 6010/7000 Series. Two soil samples were also collected and submitted for laboratory analysis of dioxins by EPA Method 8290 Tetra-Octa (1) from one boring location (S9-ASH-SB-2).

Site Hydrogeology

Shallow groundwater at Site 9 occurs in the overburden soil and varies in depth between 10 and 14 ft below ground surface. Overburden soil at Site 9 is a stratified formation consisting of a sand layer, transition layer, and clay layer overlying bedrock. Depth to bedrock has not been determined at this site. The elevation of ground surface at the site is approximately 40-50 ft above mean sea level. The top of clay has been interpreted from boring logs and shows a general slope from north to south with a trough, which bisects the site. One monitoring well (MW-NASB-227) was installed on 9 November 1998, to delineate the westward extent of VOCs in groundwater. Thirteen monitoring wells at the Navy Exchange Service Station have been added to the gauging program at Site 9 to collect data related to upgradient groundwater flow patterns (MW-NASB-008, MW-NASB-009, MW-NASB-010, MW-NASB-023, MW-NASB-024, MW-NASB-025, MW-NASB-026, MW-NASB-225, MW-NASB-226, MW-NASB-250, MW-NASB-251, MW-NASB-252, and MW-B27-DP-4). The shallow groundwater flow at the site is to the south and southeast. Historical groundwater flow patterns indicate that the shallow groundwater discharges to the two streams (now flooded). Groundwater levels in these wells and the adjacent stream support the assumption that the stream is a discharge area for shallow groundwater.

Results of Previous Investigations

The results of the 1988, 1990, and 1993 field investigations at Site 9 indicate the presence of vinyl chloride and 1, 2-dichloroethene in groundwater both south and north of Neptune Drive at concentrations in excess of their respective MCLs, MCL guidelines, and MEGs; 1, 1-dichloroethane was detected in groundwater south of Neptune Drive at concentrations in excess of its respective MEG.

The former ash landfill/dump area, north of Neptune Drive, was identified and soil and groundwater samples were collected for analysis. Polycyclic aromatic hydrocarbons were detected in the ash material; however, these compounds were not detected in groundwater immediately downgradient from this area. Vinyl chloride was detected in one monitoring well located downgradient from the disposal area, but was not detected in ash or soil samples. Elevated concentrations of inorganics were detected in groundwater downgradient of the ash disposal area, and the presence of these analytes may be due to past disposal activities in this area. Inorganics and polynuclear aromatic hydrocarbons were detected in seep and/or sediment samples. The presence of these contaminants has been attributed to the ash or other non-point source runoff from the roadways or parking lots.

During 2003, the Navy completed a direct-push investigation to collect additional subsurface data to address data gaps identified by MEDEP and EPA. The results of the direct-push sample data from the 9 borings at Site 9 are summarized as follows:

Direct-Push Groundwater Results

Two VOCs were detected in 3 of 30 groundwater samples collected during this task. No significant concentrations of VOCs were noted outside the site boundary. Vinyl chloride was detected in boring S9-B8 at two different intervals (14-18 and 22-26 ft below ground surface) at a concentration of 7.1 µg/L and 7.1 µg/L, respectively, which exceeds the MEG of 0.15 µg/L and the MCL of 2 µg/L. These concentrations are similar to what has been observed in nearby monitoring wells. Trichloroethene was detected at S9-B6 (sample interval of 47-51 ft below ground surface) at a concentration of 7.3 µg/L, which exceeds the MEG (5 µg/L) and MCL (5 µg/L).

Direct-Push Soil Borings at Barrack Buildings 218 and 219 Results

Several VOCs (vinyl chloride, carbon disulfide, *cis*-1, 2-dichloroethene, 1, 2-dichloroethene, and toluene) were detected at trace concentrations ranging from 3J µg/kg to 15 µg/kg. Several SVOCs were detected in the soil samples at various concentrations. The reported SVOCs are polycyclic aromatic hydrocarbons, which are combustion by-products often found in materials containing ash and asphalt.

Investigation and subsequent events

A direct-push investigation was conducted at Site 9 in 2003 (EA 2004) which identified soil impacted beneath the Barracks buildings with chlorinated volatile organic compounds.

On 30 June 2005, USA Environmental, a Navy construction contractor, completed demolition of three barracks buildings and one small auxiliary building. The buildings were removed down to 1 ft below ground surface, and the building foundations were left in the ground as to not disturb or come into contact with the contaminated soils.

A follow on Navy contractor, Oak Environmental, is now under contract to excavate and remove the contaminated soil, lying between 4 and 19 ft below ground surface, and to backfill with clean fill. The work plan for this effort was approved by EPA and MEDEP, and excavation began in April 2006. Chemicals of concern described in the work plan were consistent with those characterized as special wastes found in the direct-push investigation; however, sampling of 2 ash material piles revealed the presence of hazardous waste. These hazardous waste (HW) piles were combined and stockpiled on site while the excavation continued. The Navy directed the contractor to stop work in July 2006 to correct deficiencies and develop a revised work plan to address the handling/disposal of known quantities of RCRA regulated HW and any that may be encountered in the future. The work resumed in April 2007 and the Navy anticipates completing this contract by the end of 2007.

EPA, State, and Local Authorities' Roles

The EPA, MEDEP, and Local Stakeholders have had an opportunity to review and comment on the EE/CA, the proposed removal action, including the construction contract, the contractor's work plan, and the revised letter work plan which is presently being finalized. The final work plan was approved and addresses procedures and confirmatory sampling protocols for completing the removal action. EPA and MEDEP were invited to attend the preconstruction conference for the removal action at Site 9 and continued oversight will be coordinated throughout the removal action via NAS Brunswick and NAVFAC's Construction Office. The Navy has an independent 3rd party contractor (ECC) that will perform some additional oversight, monitoring, and confirmatory sampling during the removal action.

Threats to Public Health or the Environment and Statutory and Regulatory Authorities

The current conditions at Site 9 warrant continuation of the removal action. Field investigation results, as well as those from the excavation work, indicate unacceptable levels of hazardous substances in sub-surface soils at Site 9. Present military control, along with institutional controls, currently restricts access to the site. However, while the next use of this property is not currently known, this property will likely be transferred outside the Federal Government as a result of BRAC. The property including Site 9 could potentially be developed for commercial and/or private use.

Regulatory Requirements

Section 300.415 of the NCP identifies the factors that must be considered when determining the appropriateness of a removal action. Paragraphs (b) (2) (i), (ii), (iv), and (vii) of Section 300.415 directly apply as follows to Site 9 conditions:

A. Section 300.415 (b) (2) (i) "Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants." Potential human and environmental exposure pathways identified under current or future land use scenarios for Site 9 include dermal, incidental ingestion, and fugitive dust inhalation exposure to soil contaminants.

B. Section 300.415 (b) (2) (ii) "Actual or potential contamination of drinking water supplies or sensitive ecosystems."

Groundwater downgradient of Site 9 may potentially be used for private and public water supply purposes. Although the present remedy for groundwater indicates that VOC contamination levels in groundwater are improving, it is possible that contaminants from the ash material, now that the barracks have been demolished, may result in groundwater contamination in the future.

C. Section 300.415 (b) (2) (vii) "The availability of other appropriate federal or state response mechanisms to respond to the release."

The availability of response mechanisms can be met through the Navy's IR Program.

D. Section 300.415 (b) (2) (viii) "Other situations or factors that may pose threats to public

health or the environment."

The presence of contaminated ash material at Site 9 will impact future land use for this area, including non-residential land use.

ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances from Site 9, if not addressed by the response action selected in this Action Memorandum, may present an endangerment to public health, welfare, or the environment. *If action should be delayed or not taken, exposure of human populations to the ash landfill material will continue from exposure via soil, surface water, and groundwater. Contamination will most likely spread from the site to nearby areas from wind erosion, surface runoff, etc. This spread of contamination would result in an increased health risk to the exposed population. Delayed action will also increase public health risks to the adjacent population through prolonged exposure via dermal, inhalation, and ingestion pathways.*

PROPOSED ACTION AND ESTIMATED COSTS

A. Actions

The action proposed for Site 9 is to excavate contaminated soils and dispose of these material without treatment at a waste landfill. Landfilling is a cost-effective alternative for addressing the buried wastes at Site 9. Municipal waste landfills are engineered to provide controls for protecting human health and the environment. Buried wastes that cannot be disposed in a municipal landfill will be disposed in a hazardous waste landfill.

B. Estimated Costs

The Navy's estimate of \$2,000,000 was considered fair and reasonable to carry out the recommended removal action at Site 9; excluding annual monitoring costs; however, unforeseen conditions are expected to raise this estimated cost.

C. Contribution to Remedial Performance

Per the Federal Facility Agreement signed by the Navy, EPA, and MEDEP, this removal action shall, to the extent practicable, contribute to the efficient performance of any long-term remedial action with respect to the release or release(s) or threatened release(s) of concern.

The proposed removal action will meet the following objectives:

Prevent exposures (or potential exposures) to contaminated ash material presenting unacceptable risks.

Protect groundwater quality by reducing infiltration of, into, and through the contaminated

ash material.

Prevent the release of hazardous substances at Site 9 to nearby surface water, sensitive ecosystems, and other media.

The proposed removal action is consistent with accepted removal practices and is expected to abate the threats that meet the NCP removal criteria.

D. Recommendation

This decision document represents the selected removal action for site 9 at NAS Brunswick, developed in accordance with CERCLA as amended and is not inconsistent with the NCP. This decision is based on the administrative record for the site.

Dawn C. Kincaid 5/3/07

DAWN KINCAID, P.E.
BRAC Environmental Coordinator
BRAC PMO NE

Navy Responses to EPA Comments of April 17, 2007

[Note: the comments are provided in standard text, the Navy responses are in *italics*.]

GENERAL COMMENTS

1. During the week of March 26th and April 9, EPA conducted a Federal Facility Multimedia Inspection. It was not clear to the inspectors if there was a separate pile for hazardous waste at site 9. Piles 7 & 8 and the hazardous waste pile all seemed to be in the same area and co-mingled. This is unacceptable management of hazardous waste. How is it possible that the Navy has inspected all of the hazardous waste pile, when piles 7&8 are on top of it?

In accordance with the FFA, RCRA is an ARAR and must be adhered to. The general operating standard for hazardous waste generators, 40 CFR265.31, Maintenance and Operation of Facility, is applicable:

Facilities must be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

Therefore, no migration (erosion) of suspected hazardous waste must be allowed to leave the pile and the Navy must inspect the pile to ensure it is maintained in accordance with RCRA.

The Navy has insisted, since EPA first saw this pile in August of 2006, that the hazardous waste pile was segregated and contained, that the piles 7&8 were put on top of the hazardous waste plastic containment, and that the piles were not co-mingled. This will be determined as the Navy removes, samples, and stockpiles the pile 7&8. Therefore EPA is requiring Navy not remove any soils offsite except for the agreed to CDD#5 pile, until approved by EPA and DEP. Please provide 14 days in advance of the uncovering so that EPA can provide oversight under the FFA.

The entire P7/P8/Haz pile must be treated as hazardous waste until proven otherwise. The Navy should provide a new Action Memo using EPA guidance, *Action Memorandum Guidance*, EPA/540/P-90/004 in advance of the removal of the hazardous waste offsite since the last action memo the Navy created was for solid waste in April 2006, not hazardous waste that was found in June of 2006. The Navy should use EPA guidance, *Removal Response Reporting: POLREPs and OSC Reports*, EPA-540/R-94/023 to report on the removal once completed. The Navy should use the EPA guidance, *Management of Remediation Waste under RCRA*, EPA530-F-98-026, October 1998 to management the waste onsite.

The re-sampling of the pile should take place as proposed and amended by these and the ME DEP comments, however, the pile must be managed as hazardous waste until the Navy has shown that the original pile of hazardous waste was contained under an intact cover and has not eroded into the piles P7/P8. If the original cover has been compromised or if the pile eroded and material has mingled with P7/P8, then the Navy will have to dispose of the entire pile (pile 7, 8 & the hazardous waste pile) as hazardous waste.

Additionally, Navy must secure the site. The current snow fencing and limited signage is not a deterrent to the curious. The Navy must secure the site surrounding the hazardous waste pile with more secure fencing and additional signage.

Agree. The HW pile was covered completely by poly sheeting at the time it was staged. The boundaries of the HW pile are documented via GPS coordinates, and will be independently confirmed through calculations using the height of the pile and angle of repose.

The Navy will provide 14 days of notice prior to uncovering the HW pile. Figure 3 of the LWP shows a buffer zone (a zone of potential soil mingling) around the HW pile. As the HW pile is segregated, soils from this zone of potential mixing that are removed as part of isolating the HW pile will be handled as potential hazardous waste and be stockpiled separately to the north of the current HW pile. All security and containment measures for hazardous waste, as described below, will be used for this new stockpile of potentially co-mingled soils. To avoid unnecessary slumping of soils from Piles 7 and 8 into this zone of potential soil mingling, temporary sheeting may be driven into Piles 7 and 8, beyond the agreed upon footprint of the HW pile.

The Navy will provide additional analytical data on the contents of Piles 7 and 8, per the approved Letter Work Plan, and submit that data to EPA and MEDEP for review and concurrence prior to shipping these materials for off-site disposal.

Until analytical data show otherwise, soils from Piles 7 and 8 will be managed as potential hazardous waste. The entire area of the HW pile and Piles 7 and 8 will be surrounded by erosion controls (e.g., haybales), new four-foot wire mesh fencing with attached markers for visibility, and Hazardous Waste signs will be posted around the perimeter at 75-foot intervals. Materials separated from Piles 7 and 8 as part of the re-sampling effort will also be managed as potential hazardous waste. In addition to the above items, the piles will be underlain by poly sheeting and overlain by poly sheeting pending final disposition.

The Action Memo according to EPA guidance will be provided under separate cover prior to the start of the work. The report on the removal will be in accordance with EPA's guidance as part of the closeout report for this project.

2. In accordance with the FFA § 11.4 (e), the Navy must provide an acceptable schedule for completing the site 9 removal and restoration.

A schedule for removal of the existing ash piles and HW pile is attached. Additional schedule information will be provided as it becomes available.

3. The hazardous waste SOP must be updated to follow the requirements of RCRA. Security, signs, inspections, and containment must be added to the SOP.

The hazardous waste SOP has been updated to include this information and is attached to the revised Letter Work Plan.

4. The ground beneath the piles must be sampled for the VOC, SVOC, metals, and pesticides required for backfill and disposal and the table C-2 should be used for cleanup levels. Please see related comments on table C-2 below.

Sampling of areas beneath the piles will be performed as part of the overall site closure documentation. Please note that some areas where the piles are located contain asphalt layers within the top one foot of the soil surface. The presence of this asphalt would be anticipated to lead to detections of PAHs (and potentially other compounds) that are similar to those associated with the ash). The potential interference in the chemical data due to the presence of the asphalt will be evaluated as part of the overall closure sampling.

5. The ESS SOP 20-8260B references ESS SOP20-5035 for soil samples but SOP 20-5035 has not been provided in this Letter Work Plan. Please include SOP 20-5035 in the Work Plan.

SOP 20-5035 has been added to the Letter Work Plan.

6. EPA Method 5030, which is used for high concentration samples and is referenced by Method 5035, specifies in Section 8.3 that a maximum of five samples may be combined to generate a composite VOC sample for analysis. However, the Letter Work Plan indicates that the intent is to combine 10 individual VOC samples to obtain a single composite VOC sample. Please edit the Letter Work Plan to limit the VOC composite samples to five individual samples.

The Letter Work Plan has been revised to state that a maximum of five samples may be combined to generate a composite VOC sample.

SPECIFIC COMMENTS

7. Page 3: the confirmation samples S9-C10-B7-1 and S9-C-10-SW-52 results indicate that PAHs above EPA R9 criteria were present in the surface soils. The Navy must remove surface soils in this area and perform confirmatory sampling for SVOC, pesticides, and metals.

Agree. The Navy will remove soil in the area of confirmation samples S9-C10-B7-1 and S9-C10-SW-52 and resample.

8. Page 5: In the third bullet, please correct the liquid aliquot units to microliters if that is the intent; the terminology used in the Letter Work Plan is micrograms per liter ($\mu\text{g/l}$) which is a concentration term not a volume term.

The unit reference has been changed to microliters (μl).

9. Page 5, Methodology for Composite Total VOC Sampling. The third bullet states "where there are ten vials for a composite, a 50 $\mu\text{g/l}$ aliquot of methanol extract will be taken from each vial". ESS Laboratory's SOP No. 20_8260B does not discuss compositing of soil/methanol extract samples. However, the SOP does discuss compositing aqueous (water) samples which comprise up to 5 samples that can be composited. Attach the laboratory's instructions for compositing the soil/methanol extract samples including how many samples will be composited (5).

Per General Comment 6 above, the Letter Work Plan has been revised to state that a maximum of five (5) samples will be composited. The laboratory's procedure for preparing the composite is attached.

10. Page 6: Regarding the use of the VOC compositing method for TPH, please elaborate on the method modifications since petroleum is not soluble in methanol.

The Letter Work Plan has been revised to delete references to use of the VOC compositing method for TPH samples. The volatile fraction of the TPH analyses will be represented by the composited VOC samples.

11. Page 6: Regarding Table 2, please confirm that the ESS PQLs listed can be achieved using the high concentration methanol preservation method proposed (5035 and 5030) which results in a significant

sample dilution.

The Navy has confirmed that ESS can achieve the PQLs shown in Table 2 with the methanol preserved samples.

12. Page 6: Methodology for Special Waste Disposal/Load Tracking: The last sentence refers to the rejection of loads that do not meet the Bill of Lading requirements discussed in this section. Please clarify who will be responsible for rejecting the loads and how they will know that trucks failing to meet the criteria should be rejected. If a truck is rejected what corrective action would the Navy take?

Materials will not be approved for off-site shipment until necessary analytical data have been reviewed by the Navy and submitted to EPA and MEDEP. Further, the receiving facility will have been sent the necessary data and pre-approved the materials for acceptance at the disposal facility. Thus, all materials leaving the site will have been approved for off-site shipment. The receiving facility reviews necessary documentation prior to receipt of each load; any vehicle not having proper paperwork will not be allowed to unload, and that vehicle and load will return to Site 9 to obtain the appropriate paperwork.

13. Table C-2 - Detection Limits for Soil/Solid Samples

- a. The Table is unclear on whether the listed detection limits are based on the soil samples being preserved with methanol. Please clarify. Note if the clean-up limits can not be obtained using the methanol preservation procedure, the low level procedure described in Method 5035A should be used.

The listed detection limits for VOCs are based on the low level procedure described in Method 5035A. A footnote has been added to Table C-2 to state this. The methanol preserved samples described in the Letter Work Plan are for comparison against TCLP standards, which are provided in Attached Table C-3.

- b. The RTC explains that table C-2 will be used for cleanup levels. The more stringent of either the EPA R9 or Maine numbers should be used if the Navy is planning on meeting residential standards. If neither an EPA R9 nor Maine RAG number is available, the Navy should develop a site specific PRG rather than using the SSL.

Agree. The SSL values have been deleted from Table C-2.

14. In accordance with the FFA, §6.7(e) and §11, the Navy must respond to these comments. EPA requests that the Navy respond within 2 weeks so that the threat of release of hazardous waste can be minimized and site security can be increased in a timely manner.

Improved site security, per the revised Hazardous Waste Management SOP, was initiated on Monday, April 23, 2007, ensuring that the threat of release is minimized.

Navy Responses to MEDEP Comments of April 23, 2007

In the future, when responding to regulatory comments, please use the change the header rather than leave MEDEP's and EPA's original header. By leaving MEDEP's and EPA's headers, it appears that the information contained is being sent to the Navy not the Navy responding back to MEDEP and EPA.

The Navy has made this requested change.

Page 3 & 5, Table 1: If this table is to be used as part of the workplan requested by EPA there is an internal contradiction. The title indicates that the sampling is proposed but column 3 is Prior Chemical Analyses Performed. The column should be correctly titled Chemical Analyses.

The Column 3 heading has been revised to "Chemical Analyses."

