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DEPARTMENT OF THE NAVY
NORTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
10 INDUSTRIAL HIGHWAY
MAIL STOP, #82
LESTER, PA 19113-2090

IN REPLY REFER TO

5090
Code 1823/FE

03 JUN 1998

Environmental Protection Agency
Region I
Attn: Ms. Meghan Cassidy
JFK Building
Boston, MA 02203

Mr. Iver McLeod
Maine Department of Environmental Protection
State House Station 17
Augusta, ME 04333-0017

Subj: STANDARD OPERATING PROCEDURES FOR THE INSTALLATION RESTORATION PROGRAM, PORTSMOUTH NAVAL SHIPYARD, KITTERY, ME

Dear Ms. Cassidy/Mr. McLeod:

Enclosed are the Response to Comments on the Standard Operationg Procedures from the U.S. Environmental Protection Agency Region 1 dated dated December 1, 1997; Seacoast Anti-Pollution League Comments dated December 12, 1997; and April 15, 1998. Please provide comments to Mr. Fred Evans by June 30, 1998.

For the Community Restoration Advisory Board (RAB) members; if you have any comments or questions on these issues, they can be provided to the Navy at a RAB meeting, by calling the Public Affairs Office at (207) 438-1140 or by writing to:

Portsmouth Naval Shipyard
Code 106.3R Bldg 44
Attn Marty Raymond
Portsmouth, NH 03804-5000

If additional information is required, please contact Ms. Marty Raymond at 207-438-2536 or myself at 610-595-0567, x159.

Sincerely,

Frederick J. Evans

FREDERICK J. EVANS, P.E.
Remedial Project Manager
By direction of the
Commanding Officer

Subj: PHASE II FATE AND TRANSPORT MODELING FOR THE INSTALLATION RESTORATION PROGRAM, PORTSMOUTH NAVAL SHIPYARD, KITTERY, ME

Encl:
Response to Phase II Fate and Transport Modeling Comments

Distribution:

Ms. Juanita Bell
Mr. Jeff Clifford
Ms. Eileen Foley
Mr. Phil McCarthy
Mr. Guy Petty
Mr. Peter Vandermark
NOAA (K. Finkelstein)
ME Dept. of Marine Resources (D. Card)
PNS (Code 106.3R, M. Raymond)
PNS (Code 100PAO) w/o encl
Mr. Doug Bogen
Ms. Michele Dionne
Ms. Mary Marshall
Mr. Jack McKenna
Mr. Onil Roy
Ms. Carolyn Lepage
US Fish & Wildlife Service (K. Munney)
NH Fish & Game (J. Nelson)
COMSUBGRU TWO (R. Jones)
Brown and Root Environmental (L. Klink, B. Horne)

RESPONSE TO EPA FOLLOW-UP COMMENTS DATED DECEMBER 1, 1997
COMMENT RESPONSE LETTER DATED OCTOBER 22, 1997
STANDARD OPERATING PROCEDURES MANUAL
PORTSMOUTH NAVAL SHIPYARD, KITTERY, MAINE

Comment: General Comment. EPA notes that the SOP for Field GC work is set up strictly to provide qualitative information. Field GCs, if set up properly, can offer highly quantitative results that can be used to provide much more than screening information. EPA requests that when field GC work is to be proposed, that we look closely at what type of results would be most beneficial.

Response: Comment noted. The need for qualitative or quantitative information from field GCs will be determined on a workplan specific basis.

RESPONSE TO SAPL COMMENTS DATED DECEMBER 12, 1997
STANDARD OPERATING PROCEDURES MANUAL
PORTSMOUTH NAVAL SHIPYARD, KITTERY, MAINE

Comment: General Comment. The Objective and Scope section of the Forward explains that the SOP manual is intended to be a general source, and that the application of SOPs or portions of the SOPs will be site- or activity-specific. In addition, individual site work plans may require new or unusual SOPs that are not contained in this manual. Therefore, it is likely that, in addition to the comments in this letter, we will also have comment regarding SOPs referenced in work plans and other documents we will be reviewing in the future.

Response: Agreed.

Comment: Forward. The process and timing for updating the SOPS and distributing the revised SOPs should be outlined in the Forward. The response to EPA's 12th comment refers to the "next regularly scheduled round of SOP revisions" and mentions an SOP Manual update of December 1997. Does the Navy plan to update the manual on an annual basis? Will the Navy be soliciting comments prior to a regularly scheduled update?

Response: The Navy plans on updating the SOP Manual on an as-needed basis. The first update was provided by Brown & Root Environmental's letter, dated October 22, 1997. Future "updates" will consist of insert pages for the regulatory agencies and RAB members to insert in their existing copies of the SOP Manual. The next update, if required, will occur prior to performing additional field work. When the next update does occur, the regulatory agencies and RAB members will be informed and included in the review process.

Comment: GH-1.1 Site Reconnaissance. We have commented in the course of an earlier review that this SOP seems to focus on the logistical details that will be useful in planning future site investigations. In addition, the Site Reconnaissance Checklist in Attachment A seems to be geared to observing a facility that is currently active. However, a number of the sites or potential sites at the Shipyard are a concern because of past activities that may no longer be in evidence. How will the Navy address reconnaissance at those sites?

Response: SAPL is referring to the Navy's response to SAPL's Comment No. 2 on the Draft Final Site Screening Process (SSP) Plan. The Navy responded as follows (paraphrased): "The SOP is written in a general form to cover site reconnaissance activities for a variety of sites. The SOP indicates the activities that may be necessary. Although several of the bulleted items under Section 5.2 of the SOP (Observations) are relevant for the logistical details necessary for conducting hydrogeologic investigation, others are related to observations necessary to identify potential sources and contaminants, migration potentials, potential receptors, as well as the potential for existing data (e.g., existence of monitoring wells on site). As part of the SOP Manual update (see insert pages attached to 10/22/97), text has been added indicating that as part of the Site Reconnaissance Checklist (under Hydrogeologic Assessment), situations which prevent hazardous substance migration (i.e., barriers, soil cover, and other impediments) should also be identified.

SAPL now seems concerned that physical evidence from past activities may no longer be in evidence at some sites. The Navy addresses this by conducting a historical records search (as part of the SSP Plan) for a new site and tailoring the site screening field program accordingly.

Comment: GH-1.2 Evaluation of Existing Monitoring Wells and Water Level Measurement. How will water levels in artesian wells be measured? Also, water levels are to be taken from the surveyed reference mark on the top edge of the inner well casing. How is that point marked? Given that the personnel involved in water level measurements may change from round to round, how will the Navy ensure that everyone making the measurements is making them from the same point at a given well?

Response: Water levels in artesian wells be measured by:

Installing a water-tight well casing extension at the top of the well casing to allow the groundwater level to rise until it equilibrates. The water level will then be measured and back calculated to determine the static water level, or

Should the head of an artesian be greater than can be measured by adding a riser extension, then a pressure cap may be installed at the top of the well. The pressure will be measured and converted to feet of water to determine the water level.

A reference point is established at the top of the well casing using an indelible marker. This is the point where water levels are measured from. Establishment of the reference point is addressed during preparation of the surveying services technical specification.

Comment: GH-1.3 Soil and Rock Drilling Methods. The EPA comments (#10) that this SOP does not include any provision regarding the characterization, management, or disposal of contaminated drill cuttings. The Navy responded that this is typically handled in the project-specific planning documents. Given the likelihood of encountering subsurface contaminants, it seems appropriate to at least mention in this SOP that the need for and means of dealing with contaminated drill cuttings would be addressed in site-specific or project specific work plans or other documents.

Response: Waste disposal is addressed in SOP Number SA-7.1, Decontamination of Field Equipment and Waste Handling. The Navy believes no changes to SOP Number GH-1.3, Soil and Rock Drilling Methods are necessary.

Comment: GH-1.3 Soil and Rock Drilling Methods. The next-to-last sentence in Section 5.1 mentions abandoning a borehole if resistant material is encountered. What is/are the procedure/s for properly abandoning a boring?

Response: The potential need for well abandonment arose after submittal of the SOP Manual in November 1996. The attached SOP will be added to the SOP Manual update. This SOP includes an insert page addressing PNS-specific clarifications.

Comment: GH-2.8 Groundwater Monitoring Point Installation. The DEP (comment 4) recommended that cement grout not be used for completion of monitoring wells as the cement could influence water chemistry in the vicinity of the well. In their response, the Navy stated it would comply with the DEP's preference for bentonite over cement grout for completion of monitoring wells. However, in the Revisions/Additions/Clarifications attached to the comment responses, the Navy stated that the annular space above the bentonite seal would be backfilled with a fine-grained filter sand to the surface. How will the well be protected from infiltration of water from the ground surface?

Response: The issue of back-filling the annular space above the bentonite seal was raised recently during the comment period for the Sites 10, 29, 30, 31, and 32 work plans. The annular space above the bentonite seal will be backfilled with a cement/bentonite grout (containing no additives) from the top of the bentonite seal to the surface. The cement bentonite grout will be allowed to cure for a minimum of 14 days before development. This new information will be added to the SOP insert page previously submitted.

Comment: SA-1.2 Surface Water and Sediment Sampling. DEP comments 5 and 6 address the need to collect samples representative of low energy environments where contaminants may accumulate, as well as of areas of non-uniform flow or uneven mixing where contaminants may pose a risk to biota. The Navy agreed with these points, but no revisions were made to the SOP text. The third paragraph in Section 5.2.2 specifies that samples should be taken where uniform flow or deposition and good mixing conditions exist. How will the Navy ensure that the points raised by the DEP are addressed?

Response: The site-specific work plan always includes figures showing sampling locations and tables including the rationale for sampling location and list of analytes.

Comment: SA-2.4 Soil Gas Sampling. The Navy's response to DEP comment 8 refers to their "attached insert page" documenting that headspace screening of soils from sites only contaminated by oil and petroleum products must follow the techniques described in Appendix I of Maine Chapter 691. However, there was no insert page for SOP SA-2.4 in our materials.

Response: There is no insert page for SOP SA-2.4 Soil Gas Sampling. Instead the insert pages are provided for the associated instrumentation for field screening analysis (SOPs (ME-12, ME-13 and ME-15).

Comment: SA-6.3 Field Documentation. The sample label information is included in Section 5.3.1.2, not 5.3.1.1 as listed in the insert page.

Response: Agree. The insert page will be corrected.

Comment: SA-7.1 Decontamination of Waste Equipment and Waste Handling. The Navy's insert page describes additional waste handling procedures. Soil cuttings will be containerized based on visual observations and field screening. How will the Navy deal with soil cuttings having contaminants that aren't visible or that don't provoke a response by the field screening instruments?

Response: Soil cuttings with no visible contamination and no response by the field screening instruments would typically be used as backfill for the boring or spread on the ground. An exception would be those sites where high-level inorganic contamination is expected at higher levels in the subsurface than in the surface soils; in this case, the drill cuttings would be containerized. This type of planning is best left to the site-specific work plan rather than an SOP Manual.

SOP NUMBER GH-2.9 (DATED 11/12/96)
WELL ABANDONMENT
REVISIONS/ADDITIONS/CLARIFICATIONS
PORTSMOUTH NAVAL SHIPYARD, KITTERY, MAINE

Section 5.1 General; page 3, 1st sentence: As a clarification, another reason for well abandonment could be interference with the completion of a construction project.

Section 5.2 Material for Sealing, last paragraph; page 3: As a clarification, certified clean fill means the fill is free of contaminants. Fill must be certified clean by a recognized organization, such as the National Sanitation Foundation (NSF).

Section 5.3.1 Preliminary Considerations, 2nd paragraph; page 4: "PVC" should be replaced in the text by "PVC or Teflon" since some of the monitoring wells at PNS are Teflon.

Section 5.3.2 Filling and Sealing Procedures, 2nd paragraph, 2nd sentence; page 4: The typographical error "scaling" should be replaced in the text with "sealing".

Section 5.3.2 Filling and Sealing Procedures, 3rd paragraph; page 4: As a clarification for PNS work, the Navy prefers not to include ripping the casing in-situ but instead just pressure grout it.

Section 5.3.2 Filling and Sealing Procedures, 5th paragraph; page 4: Because of tidal fluctuations at PNS, water levels in PNS monitoring wells can fluctuate several feet in a given day. Therefore, it is suggested that clean fill material be placed in the well screen to about 2 feet above the screen. From this point to the ground surface, bentonite/cement will be used to seal the monitoring well.