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**DIVISION OF SPILL PREVENTION AND RESPONSE
CONTAMINATED SITES REMEDIATION PROGRAM**

May 20, 1999

Suzanne Beauchamp
Department of the Army
U.S. Army Engineer District, Alaska
P.O. Box 898
Anchorage, Alaska 99506

RE: Comments on the Pre-Final Phase II RI/FS, Northeast Cape

Dear Ms. Beauchamp:

The Alaska Department of Environmental Conservation (DEC) has completed review of the document entitled *Pre-Final Phase II Remedial Investigation/Feasibility Study, Northeast Cape, St. Lawrence Island, Alaska* (RI/FS Report). DEC received the RI/FS Report April 16, 1999. The report was well written, with good quality graphics. Displaying the analyticals from past studies makes the information easy to read and interpret.

Comments:

General: From the BD/DR inventory it appears the building foundations throughout the site will be left in place. Please clarify the rationale for leaving the foundations in place and whether the landowner concurs with this decision. Consideration should be given to potential interference with soil remediation. For example in the headquarters area adjacent to the Power Plant there is significant soil contamination at depths over 11.5 feet below grade with increasing DRO levels in the groundwater. The Power Plant foundation and the Supply and Mess Hall Warehouse foundations have PCB contamination. On other projects the EPA has considered leaving PCB contaminated foundations in-place a method of disposal regulated under TSCA. In some cases high levels of PCBs have been present in concrete even though surface wipe samples showed relatively low levels. Core and wipe samples should be collected from the concrete in areas where PCBs are a contaminant of potential concern. In-place disposal of the concrete may not be appropriate.

General, Background Levels: Throughout the document TRPH is eliminated as a contaminant of concern based on the background data. There are numerous TRPH values in excess of the 3,000-mg/kg level taken at location SS00. Many of the samples with elevated TRPH values are from fill areas where a naturally high background level would not be expected. The old 418.1

200-1e

SW-846 method will detect the heavier petroleum hydrocarbon's, a portion of which can be attributed to the DRO and or RRO ranges. While true that the TRPH pertains to no applicable cleanup criteria, the data is still valid as a screening tool.

Background soil sample location SS00 is the only one shown on figure 5-19. Please include the other two sample locations on the map. Total organic carbon (TOC) is not listed as an analyte for soil background samples. Analytical data should be matched with TOC background levels of a similar soil type. Please include TOC data if available in Table 5-50. Please clarify on the last paragraph of page 5-66 a strategy for the establishment of a set procedure to guard against false positives.

Background location SS801 shows a DRO value of 13,000 mg/kg. There was also a detection of methylene chloride in the same sample. The elevated levels of DRO and the detection of a compound that is not naturally occurring indicates the background sample location was contaminated. This sample should be eliminated from background consideration or substantiated with additional data. The background samples taken at sites 6, 9 and 28 appear to be more representative of what would be expected for site background concentrations.

General: It seems reasonable to make the assumption that soil samples from ephemeral ponds be evaluated as soil rather than sediment. Supporting documentation that the ponds do not contain benthic or aquatic life and dry up occasionally should be provided to justify not using more conservative sediment screening benchmark values.

General: Throughout the site investigation and remediation summaries the statement is made for Recommended Remedial Action, "Remediate areas of isolated petroleum-contaminated soil consistent with installation-wide cleanup criteria and remedial action." While most of the criteria presented in section 1.4.2 appear appropriate, there is no discussion of specific strategies for remedial action. It is anticipated that a detailed Work Plan will be produced addressing the CON/HTRW and BD/DR.

General: Throughout the document filtered metals sample results are used to eliminate metals as contaminants of concern. Please note that unfiltered samples are required to meet reporting requirements (18 AAC 75.380(c)(2)). A low-flow sampling technique would be suggested for future sampling or a justification for filtering the samples.

Section 1.4.2: Please clarify that methods 1 through 4 apply to soil and that Table C (75.345) applies to groundwater. Please note that the department considers groundwater to be a potential drinking water source.

Table 1-4 - Please add TAqH to the notes. TAqH = PAHs + BTEX, TAH = BTEX

PCB Criteria, page 1-12: The department's PCB cleanup criteria (18 AAC 75.341(c)) take

precedence over the federal, which is different than what is stated in the last paragraph on the page. State of Alaska cleanup levels for unrestricted land use are < 1 mg/kg in surface soil (top 2-feet) and < 10 mg/kg for subsurface soil. For industrial or commercial land use, the levels are < 10 mg/kg in surface soil and < 25 mg/kg in subsurface. Assumptions based on limited future land use require landowner consent and may require institutional controls (18 AAC 75.340(e)(3)).

For the criteria presented in the report, the paragraph after the table on page 1-30 states that soils with less than 50 mg/kg PCBs can be placed in a state permitted landfill without manifesting. PCB impacted soil with < 50 mg/kg can be placed in a state permitted, lined Class 1 landfill provided the material is accepted by the landfill operator.

Tundra - Tundra cleanup levels are determined on a site-specific basis, see footnotes in Table A2, 18 AAC 75.341. Cleanup decisions for tundra are based on the potential adverse impact to the environment as a result of remedial activity. Factors that contribute to a decision on cleanup levels include whether there is permafrost below the tundra, thickness of permafrost, whether groundwater is present, whether downgradient surface water or receptors are being impacted and whether the contamination is migrating through surface or subsurface soil.

Due to the large number of impacted tundra areas at this site, each individual area should be addressed or a feasibility study should be done to produce guidelines to determine whether a particular piece of tundra should be remediated or left alone.

Section 1.5.4 and 1.5.5: General statements are made that the ground water flow is northerly. Please clarify whether any ground water elevation surveys been performed regionally or by area, for example in the headquarters area.

Section 2.5, Radiological Survey: Please reference the DEC comments of January 9, 1997 by Tamar Stephens on the Draft Phase II RI/FS. Please clarify if the Victoreen Radiacmeter will detect buried radioactive materials. Please include a discussion about any historic use of radioactive materials at the site.

Section 3.3: Please provide supporting documentation for the presence of DS-2 and STB. Include potential uses of these products in the final report.

Section 4.2: Please list IRD in the acronym page, or is this a typo?

Sites 3 and 4: Lateral extent of groundwater impacts have not been determined. Please address the remediation strategy for groundwater in the final report.

Note: A few buildings at the hunting and fishing camp contain lead-based paint and are used seasonally by residents from Savoonga. The buildings were constructed by locals and not part

of DERP responsibility, however have residents been notified of the health risks of lead-based paint and measures that can be taken to minimize exposure?

Site 6, page 5-10: The site map (Figure 1-4) shows a Cargo Beach Road Drum Field is outlined in black and an adjacent site 6 outlined in green. Please clarify if the black outline pertains to a different site and whether it contains any CON/HTRW or BD/DR.

Section 5.7, page 5-13, Site 7: Text in the third paragraph of this section says "Debris is present in the landfill but is not included in the inventory of debris slated for demolition provided in Section 4.3." Please clarify if this sentence refers to buried debris. Standard procedures for closing out the landfills and drum dumps at Northeast Cape should include:

- Remove all of the surface and exposed debris.
- Characterize the groundwater to see if there is a leachate problem.
- Establish the landfill boundaries and location and provide documentation to the landowner.
- Cap to minimize infiltration and re vegetate to prevent erosion.
- Landfill must meet substantive requirements in 18 AAC 60.
- Possible institutional controls.

Please provide supporting rational that leachate is not being generated in groundwater.

It appears the dioxin result for sediment sample 103 shown on figure 5-5 is a mistake. Table 5-10 lists this result as zero.

Section 5.9, page 5-18, Site 9: Same comment as discussed for Section 5.7, Site 7 in regards to removing exposed debris and documenting landfill boundaries.

DRO exceeded Table C cleanup levels in all three wells. Please address the cleanup of groundwater to Table C cleanup levels in the recommended remedial actions.

Section 5.10, page 5-20, Site 10: The text reports that there are buried drums containing 90-weight oil. Although the drums are not visible, the knowledge that they contain oil represents that a free product is being disposed. Free product is required to be recovered (75.325(f)). The staining and elevated levels of DRO indicate that some of the drums have leaked and will likely remain a continuing source of contamination. Please add the buried drums to the CON/HTRW removal inventory. Please provide a plan for characterizing groundwater in this area.

Section 5.12, Site 12, page 5-26: Although no visible signs of a leak are present at the AST locations, downgradient subsurface sampling is appropriate given the length of time the tanks were in service. A previous meeting (March 13, 1998) had suggested this site action would parallel with adjacent sites.

Section 5.13, page 5-26, Site 13: See the general comment above concerning the building foundations being left in place. Please add PCBs in concrete as a possible COC. Please add GRO as a contaminant of concern in soil. Subsurface soil at MW-19 had GRO values above method 1, level C criteria.

Section 5.14, page 5-29, Site 14: Same comment concerning PCBs in concrete applies to this foundation.

Section 5.17, page 5-36, Site 17: Same comment concerning PCBs in concrete applies to this foundation.

Section 5-19, page 5-40, Site 19: Text in the fourth paragraph states that the sediment in the mechanics' work pit was sampled for PCBs. It appears that there are no results listed in Section 4.2.1 or Tables 5-31-33 for PCBs in sediment. Please clarify.

Section 5-21, page 5-42, Site 21: PCBs were detected at sample location SS168 during the Phase I RI. This information does not appear to be included in the text or Figure 5-11 of the current report. Please add the information.

Section 5-22, page 5-45, Site 22: An earlier recommendation (March 13, 1998 meeting) had been to remove the surface soils at this site, but this isn't mentioned in this report. Please clarify why soil will not be removed.

Section 5-23, page 5-48, Site 23: An earlier recommendation (March 13, 1998 meeting) had been to remove hydrocarbon stained soil. There are also surface PCB analytical results over 1 mg/kg. These issues need to be addressed in the report.

Section 5-28, Site 28: Please provide rationale for not removing stained soils at the south portion of the site.

There are a few sites that appear to need more thorough characterization (as discussed above). An option to consider in planning future investigation and remedial actions would be to use the observational approach during CON/HTRW and BD/DR. This would involve characterization at each site and area (such as the Headquarters Area) during remedial activity. This approach would require flexibility in contracting and would not be conducive of a fixed maximum volume soil removal.