UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107-4431

SEP 07 1995

Mr. Orlando Monaco
Naval Facilities Engineering Command
Environmental Contracts Branch
10 Industrial Highway
Lester, Pennsylvania 19113

Re: Naval Air Warfare Center (NAWC), Warminster, PA

Dear Mr. Monaco:

Please find below EPA comments on "Revised Contingency and Sampling Plans for Area A Trenching" as submitted by Halliburton NUS under cover letter dated August 24, 1995.

1.0 INTRODUCTION

The objectives of this plan should be clearly identified to distinguish these objectives from those of the "Excavation Plan" and "Dewatering Plan". In particular, this plan should outline procedures 1) to prevent the potential mobilization of NAPLs during the excavation activities, 2) to characterize excavated soil to confirm which soil may be used as backfill or as fill elsewhere at NAWC and 3) to use the excavation as an opportunity to generate sampling data for RI purposes. It is assumed that additional sampling of subsurface soils within Area A will be scoped in a subsequent RI workplan and complement the work described in this plan.

It should also be stated that excavation shall be to bedrock throughout the route of concern.

1.1 Areas of Concern

The text does not refer to the attached drawing, "Transfer Line and 13.2 kV Poleline and Details". However, the three "areas of concern" identified on this drawing do not fully include the areas which meet the three identified criteria for an "area of concern".

Given the subject criteria, one "area of concern" should be the interval of the transfer line running immediately north of and parallel to the northern perimeter of the existing, eastern sludge lagoon (and former impoundment IM 4). Why is this "area which provided positive results for VOCs in soil gas samples"

(and was identified as an "area of concern" in a previous version of this plan dated May 19, 1995) not included in the enclosed drawing? In addition, given the lack of soil gas readings along survey lines at 25', 50' and 75', this "area of concern" may extend southeast from the corner of IM 4. With regard to IM 4, available results of Phase III RI subsurface soil sampling through IM 4 should also be referenced to help identify the extent of this "area of concern". It is worth noting that Site 1, which is assumed to include EPIC features P1, GS4, TR8, and DG2, is not properly located on the enclosed drawing and, based on available data, may or may not be a source (or a major source) of chlorinated solvents in groundwater in Area A.

Regarding the "area of concern" north of the fuel storage area, it is stated that BTEX concentrations were not as high as those for (chlorinated?) VOCs. However, detected soil gas levels of benzene (65 ppm), while localized, were the highest within this area and were detected only 25 feet from the access road. It should also be noted that, at one soil gas survey point in this area, carbon tetrachloride was detected at a levels of 150 ppm.

Regarding the former impoundments (IM 3 and IM 7), while priority pollutant metals (and hexavalent chromium) are a concern, BTEX compounds, benzene, carbon tetrachloride, and TCE have all been detected at levels above 1 ppm in soil gas samples collected within the areas of IM 3 and/or IM 7. In addition, BTEX compounds were detected above 1 ppm in soil gas at a location immediately south of impoundment IM 8. (This was also indicated as an "area of concern" in Figure 2 in the plan of May 19 but not included the revised plan. Why?)

To the extent applicable, Phase III RI surface soil sample results should also be referenced and used to identify "areas of concern".

While the plan indicates the "areas of concern" will be identified in the field prior to the start of work, these areas should be depicted in a revised drawing to appear in the final version of this plan. EPA requests an opportunity to concur with location of these areas in the field. Given past destruction of "flag pins" and similar markers after placement, a more permanent marker should be used.

2.0 TRENCHING ACTIVITIES

2.1 Excavation Monitoring and General Work Protocol

The plan indicates the field log will include "levels of organic vapors above background" and "the concentration of each screening by organic vapor detector". Which (or both) will actually be included?

Since the "Excavation Plan" and this plan should complement or be consistent with one another, this plan should not be finalized prior to finalizing the "Excavation Plan".

Each bucket **below** four feet must also be screened with the PID/FID to meet objectives of the plan, i.e., 1) to determine which soils should undergo NAPL screening and, as a result, to determine when work should stop or be revised to address the presence of a NAPL and 2) to determine which soils should be sampled for RI purposes.

As written, it is assumed that bucket depth not exceed 18 inches, regardless of the extent to which VOC levels exceed background.

It is stated that if staining is encountered, bucket depth will not exceed 18 inches until VOCs return to background level. What if VOCs were never above background level to begin with?

Ideally, prior to referencing a "positive NAPL dye indication", there should be a description of the NAPL screening process (or a reference to this process as described later in the text).

In the case of soils excavated from below four feet within the projected areas of IM 3 and IM 7, due to the potential presence of elevated levels of metals, the Navy should segregate this soil, regardless of the presence of staining or PID/FID levels above background, to facilitate sampling as requested below.

It is indicated that soils excavated from below four feet will be backfilled unless analytical results indicate "unacceptable contamination". Unacceptable contamination should include any contaminant levels which exceed the remedial action requirements of CERCLA. It is worth noting that the Risk Based Concentration Table of March 1995 issued by EPA Region III has been routinely been cited by the Navy for CERCLA remedial action requirements or cleanup levels. However, this document clearly states that the table therein should "not be used to set cleanup levels at a CERCLA site" or "to substitute for EPA guidance for preparing baseline risk assessments". As lead federal agency in this case, the Navy should establish "remedial action cleanup levels" using EPA guidance as indicated.

Phase III RI surface soil data should be cited to support the assumption that soils between the surface and 4 feet below are likely to be "clean".

2.3 Contingencies

Will work stop immediately if stained soil is encountered as indicated?

3.0 SAMPLING AND ANALYSIS

It should be stated that sampling data will be 1) generated for RI and risk assessment purposes and 2) to determine which soils can be backfield onsite. A Sampling and Analysis Plan should be prepared to meet these objectives. This Sampling and Analysis Plan should be consistent with procedures for soil sampling under the RI for NARC as outlined in the Quality Assurance Project Plan prepared and subsequently being implemented by Halliburton NUS.

3.1 Soil Sampling Frequency

Clarify that the upslope stockpile is either contaminated based on screening **and/or** excavated from below 4 feet in depth.

Down-slope Stockpile including material between surface and 4 feet below surface:

Which soil is considered to be "immediately adjacent to contaminated soil"? The results of soil gas sampling at a depth four feet and the results of surface soil sampling in this area should be considered in this case. How will this soil managed to segregate it from the remaining soil above four feet in depth?

Phase III RI surface soil data or other information should be cited to support the conclusion that soils between the surface and 4 feet in depth do not require extensive sampling to confirm suitability for backfill purposes.

Hexavalent chromium should only be a concern in areas occupied by the former impoundments IM 3 and IM 7 and downgradient of IM 4.

To be consistent with a proposed sampling protocol for soils at the location of former impoundment IM 8, one composite sample should be collected per every 50 cubic yards of soil excavated from above the approximate locations of impoundments IM 3 and IM 7.

Up-slope Stockpiles including soils excavated between a depth of 4 feet to bedrock:

Rather than estimate or collect samples per unit volume of soil excavated, for RI purposes, samples should be collected to characterize conditions within a particular interval of the trench. In the case of former impoundments IM 3 and IM 7, at least three soil samples should be collected for the trench

interval underlying each impoundment. These samples should undergo full TAL/TCL analysis, i.e. not just TAL metals. The minimum of 10 samples proposed for the approximately 500 remaining feet of trench would generate only one sample per 50 linear feet of trench. This number of samples would be adequate only if no contamination (e.g., no PID/FID readings above background and no staining or sheens) were encountered during the soil screening process. If this is indeed case, the remaining 10 samples should all be collected within the other "areas of concern" identified in the final plan. This will result in a minimum of 16 sample points.

As previously requested, representative samples should be collected of any soils which 1) test positive for NAPL, 2) have PID/FID readings of greater than 60 ppm (but test negative for NAPL), 3) have a sheen and/or are in contact with water with a sheen and/or 4) are visually stained. The nature and actual number of representative samples which may be collected can only be determined based on the actual results of the screening of soils generated during the excavation.

Should you have any questions or comments regarding the above, please give me a call.

Sincerely,

Darius Ostrauskas
Remedial Project Manager

cc: Tom Ames, NAWC
David Kennedy, PADEP
Kathy Davies