



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

N62269.AR.000301
NAWC WARMINSTER
5090.3a

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 a Proposed Subsurface Soil Investigation for Area C, as prepared by Halliburton NUS under cover letter dated July 28, 1995.

Sit 8

To develop complete comments on the proposed investigation, please provide EPA the results PID/FID monitoring during OU-3 construction work next to and north of the runway containing "Site 8" and, as previously requested, the results of the analysis of soil samples collected from an area with elevated PID/FID readings during the subject construction work. (The "runway" in this case should include the end of the subject runway to the junction of a perpendicular runway running approximately northwest to southeast.) In addition, Attachment V should include the locations of extraction and observation wells installed under the remedial action for OU-3. The comments below may change based on a review of the above information.

It is stated that HNUS did not collect soil gas samples in areas "severely disturbed by excavation activities for the OU-3 groundwater transfer piping". However, given the depth of excavation for transfer piping extended only to 5 feet, it is unclear why no soil gas samples were collected in areas of potential VOC contamination, including those most likely to be affected by such contamination. For example, no soil gas samples were collected along survey line C, which was to have run immediately west of and parallel to the runway and was to have traversed an approximately 1600 square foot area where elevated soil gas levels were detected during the Phase I RI (see Attachment V). (Instead, the closest survey line in this case appears to have been more than 50 feet away from the runway and

the point where the maximum of 162 ppm was detected during the Phase I RI.) Also, no soil gas samples were collected within an area extending 100 feet downgradient of the end of the runway (the location of the "recent fire training area") and soil gas samples parallel to the eastern side of the runway appear to have been collected as much as 50 feet away from the runway.

In addition to the soil gas data gaps referenced above, no soil gas samples were collected from areas of known or potential waste handling and burning activities within the runway, including the "recent fire training area", "old fire training area", possible pit P5 (see EPIC report) within the "old fire training area", and pits P2, P3 and P4 (see EPIC report). Since these areas had evidently been repaved since the activities of concern, the "lack of current visible evidence that the runway surface has been breached" should not have precluded the soil gas sampling in these areas.

Without the benefit of Phase III RI soil gas data within areas of primary concern at Site 8, the scope of subsurface soil sampling must be based on limited previous RI data and available aerial photos. The subject workplan does not reference the use of available photos in this regard or otherwise propose sample locations which fully consider features of concern in these photos. Attached Figure 1 provides alternative sample points which consider the interpretation of these photos. EPA would like an opportunity to identify and concur with the Navy on the actual sample points in the field.

Why are no subsurface soil samples proposed at the site of the EM anomaly identified during the Phase I RI and indicated on Attachment V?

In each case, the borings should be down to the soil-bedrock interface and one sample should be collected immediately above the soil-bedrock interface. If there is no visual contamination or elevated PID/FID readings within a boring, the second sample in the boring should be collected below (not above) the deepest fill or, if no fill is encountered, half the distance up from the bottom of the boring.

Due to the burning activities at Site 8, each soil sample collected at Site 8 should undergo analysis for PAHs (i.e., BNA fraction) and dioxin isomers. In addition, all samples should be analyzed for TAL metals.

Maintenance Area

Generally, the results of Phase III RI work to date within the area identified as the "maintenance area" appear to suggest that this area is not the source of a significant release of VOCs, e.g., PCE addressed under OU-3. However, the detection of several VOCs in soil gas on the perimeter of the survey grid

during the Phase III RI (i.e., point E-300-03) suggest that there may have been a potential VOC release of concern outside of the grid, i.e. outside of the area identified as the "maintenance area". Why was the soil gas survey not extended beyond this point? Based on the results of an extended soil gas survey in the area of E-300, appropriate subsurface soil sample locations may be different than those proposed. In any case, EPA requests an opportunity to concur with the Navy, in the field, regarding the actual number and location of samples in this particular area.

See previous comment regarding depth of any subsurface soil samples to be collected.

Otherwise, given the lack of background information provided by the Navy to date on the "Maintenance Area (see EPA comments on Basewide EBS for NAWC dated March 1995), EPA plans to reassess the need for any additional investigation of the "maintenance area" after EPA comments on the Basewide EBS, as they apply to Area C, are addressed by the Navy.

Bas Commander's Tile Field

Attachment IV does not include all of the soil gas sample results for this area. In particular, there are no results for the survey line that runs parallel to and north of Line D. Given the highest detection of PCE (1.2 ppb) was along this line and at the edge of the sample grid, why was the grid not extended to points north of this line?

Why do the proposed locations of the soil borings not coincide with the highest soil gas detections, e.g., why is no sample being collected at the point where 1.2 ppb PCE was detected? Overall, the basis for the location of the two proposed sample points is unclear. Again, EPA requests an opportunity to concur with the Navy, in the field, regarding the actual number and location of samples in this particular area.

Again, see previous comment regarding depth of any subsurface soil samples to be collected.

Generally, with regard to identifying the source(s) of contaminated groundwater attributable to Area C, it appears that the areas investigated to date under the Phase III RI may not have included the specific area(s) where the release(s) of concern occurred. While there is a chance that no residual contaminated soil remains from the release(s), such contamination still cannot be ruled out, particularly given the lack of background information provided by the Navy to date on Area C (see EPA comments on Basewide EBS for NAWC dated March 1995). In

this regard, EPA plans to reassess the need for additional investigations to determine the source of groundwater contamination attributable to Area C after EPA comments on the Basewide EBS, as they apply to Area C, are addressed.

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

Sincerely,



Darius Ostrauskas
Remedial Project Manager

Enclosure

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