DEPARTMENT OF THE NAVY
CRANE DIVISION
NAVAL SURFACE WARFARE CENTER
300 HIGHWAY 361
CRANE, INDIANA 47522-5000

IN REPLY REFER TO:
5090/S4.7.1
Ser PRCR4/6056
14 FEB 2006

U.S. Environmental Protection Agency, Region V
Waste, Pesticides, & Toxics Division
Waste Management Branch
Corrective Action Section
77 West Jackson Blvd.
Chicago, IL 60604

Dear Mr. Ramanauskas:

Crane Division, Naval Surface Warfare Center submits responses to your comments received via email on February 8, 2006 on the Draft Quality Assurance Project Plan (QAPP) No. 4 for Mine Fill A (MFA), Mine Fill B (MFB), Cast High Explosives Fill-Building 146 Incinerator (B146), and Ordnance Test Areas (OTA), Solid Waste Management Units 12, 13, 16, & 19, respectively. The responses along with change pages are included as enclosure (1). These were also submitted to you via email on February 14, 2006. The permit required Certification Statement is provided as enclosure (2).

If you require any further information, my point of contact is Mr. Thomas J. Brent, Code PRCR4-TB, at 812-854-6160, email thomas.brent@navy.mil.

Sincerely,

J. M. Hunsicker

J. M. HUNSICKER
Environmental Site Manager
By direction of the Commanding Officer

Enclosures: 1. Responses to Comments and Change Pages
2. Certification Statement

Copy to:
ADMINISTRATIVE RECORD
SOUTHNAVFACENGCOM (Code ES31) (w/o encl)
IDEM (Doug Griffin)
TTNUS (Ralph Basinski) (w/o encl)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

James Hancock

SIGNATURE

Manager, Environmental Protection — 2/14/06

TITLE — DATE

RESPONSES TO
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (U.S.EPA) REGION 5
COMMENTS
RECEIVED VIA E-MAIL FROM PETER RAMANAUSKAS ON FEBRUARY 8, 2006
ON
DRAFT QAPP ADDENDUM NO. 4 FOR SWMUS 12, 13, A6, AND 19
NSWC CRANE, CRANE INDIANA

[mailto:Ramanauskas.Peter@epamail.epa.gov]
Sent: Wednesday, February 08, 2006 16:39
To: Gates, William H CIV EFDSOUTH; Brent, Thomas CIV NAVSURFWARCENDIV Crane, Code RP3-TB
Subject: MFA/MFB QAPP Addendum 4

Here are my questions. These apply to MFA/MFB equally although I use MFA as an example. Allen will look over the QA/QC, but I don't think anything there will be an issue.

1) Section 3.2.1: The soil sampling intervals given seem fine; however, might some of the deeper intervals be set in the field to try to match them with the base of the sumps/underground structures?

Based on the site walk conducted recently at Mine Fills A and B (MFA and MFB, respectively) to establish sampling locations, the depths of several sumps were visually inspected. All inspected sumps had depths less than 10 feet below ground surface (bgs). It was assumed, based on this sample of sumps, that all MFA and MFB sumps and catch basins had depths less than 10 feet bgs. The proposed sampling intervals were selected to represent the entire soil column adjacent to and immediately below all sumps, based on this assumption of maximum depth.

It is intended that the deeper intervals will be set in the field to match the depth of the sumps/ underground structures. The deeper samples will be collected at the base of the sump and below the sump. However, this intent was not clearly defined.

The following has been added as a new fourth paragraph in Section 3.2.1.

Leakage from the sumps would most likely have resulted in contamination of soils at the base of the sumps and below the sumps. Therefore, deeper samples will be collected at the base of the sump and below the sump based on field observations.

2) It would be good to explain the site walks the Navy/Tetra Tech did to ground truth the sumps/drains/structures selected for sampling. Were all features identified on SWMU maps found in the field and were any features not on SWMU maps but identified in the field added to this sampling round? Confirm all sumps at MFA/MFB are being investigated and there are no concerns that such structures exist near buildings for which there is no sampling identified (e.g., MFA B-3037, B-3110, B-2715, B-0155, etc).

Before the referenced site walk at Mine Fills A and B, the NSWC Crane drawing and map archive was searched to identify drawings, figures, and maps that establish known or potential explosives contamination sources at the Mine Fills. Operations within SWMU buildings and plumbing/piping and construction diagrams were reviewed to determine locations that would be appropriate for sampling. These drawings were used during the site walk to help locate various sumps, drainage channels, catch basins, and topographic low points near potential contaminant sources such as boot / shoe change houses. An effort also was made to identify engineered structures and natural drainage channels that were not on the drawings, figures, and maps but could have served as conduits for contaminant transport.

All sampling locations identified in QAPP Addendum No. 4 represent sumps that could be found, representative topographic low points near potential contaminant sources, and natural or engineered drainage ways leading directly from areas where explosives were handled during processing operations, that could serve as contaminant conduits. The precise number and positioning of soil borings at each engineered or natural structure was based on the expected potential for contamination and contaminant migration. This included a consideration of sump/catch basin size, physical condition, and local topography. In the professional judgment of the QAPP Addendum No. 4 planning team, the proposed sampling locations and depths represent points that are most likely to be contaminated if previously unaccounted contamination exists in soils at Mine Fills A and B.

The following has been added as a new next to last paragraph in Section 1.

The *locations, which are listed in Section 3, were selected for soil sampling during site walks conducted by the Navy and Tetra Tech NUS, Inc. on September 20 and 21, 2005 and on January 10, 2006. The site walks took place at both SWMUs (12 and 13). Process knowledge and facility drawings were used during the site walks to determine which sumps/drains/structures had the highest potential and frequency of handling explosive-contaminated waters and those with lesser potential. All features identified on facility drawings were found. No additional sumps were identified in facility drawings or found during the site walk (e.g., MFA B-3037, B-3110, B-2715, B-0155, etc). All locations, which may have handled explosive contaminated wasters at high frequencies, were selected for sampling. These included the process water sumps, boot / shoe change houses, etc. Locations were also selected for sampling where releases of explosives may have occurred during transportation of explosives, while being processed.*

3) Why are no soil samples being taken around sumps identified by water/sediment samples (e.g., 12SU/SL009, 12SU/SL006, 12SU/SL003, 12SU/SL001)? Conversely, why are no water/sediment samples taken at sumps identified by soil sampling (e.g., 12SB64, 12SB63, 12SB51, 12SB50, 12SB45, etc.) Why are some sumps surrounded by more samples than others (ranging from 1 to 3)? Sampling on the 4 sides of the sump (if possible) will better determine if leaks occurred on all four sides, some, or none.

The objective of this fieldwork is to determine whether releases of explosives may have occurred from process and storm water sumps and drainages. This fieldwork is not intended to completely delineate explosive contamination, if present. Collection of subsurface soil samples requires significantly greater resources than collection of water / sediment samples. In order to utilize resources most efficiently, soil samples are being taken adjacent to sumps and drainage ways, which were known to handle or suspected to handle explosive-contaminated wastewaters and locations where releases may have occurred during transportation within the processing operations. Water and sediment samples are being collected from sumps, which would receive only storm waters from locations in proximity to building where explosives were handled. Drainages and sumps receiving only storm water are less likely to be contaminated than drainages / sumps receiving explosive-contaminated process waters. Certain process water sumps are surrounded by more samples than others based upon their size and the frequency of use. In all cases, where soil samples are being collected adjacent to sumps, one or more samples are in the topographical downgradient direction. If releases have occurred, soils in the downgradient direction would be most likely to be impacted.

The last sentence of the now second-to-last paragraph of Section 1 has been revised to read as follows.

The results of this fieldwork will be evaluated to determine if previously unidentified sources of explosives in soils are present and if present whether additional fieldwork is necessary to delineate the extent of contamination and will also be incorporated into the draft RFIs.

5090
Ser PRCR4/6056

14 February 2006

The letter Ser PRCR4/6056 was for the submittal of responses to comments and change pages for the draft Quality Assurance Project Plan (QAPP) No. 4 for Mine Fill A (MFA), Mine Fill B (MFB), Cast High Explosives Fill - Building 146 Incinerator (B146) and Ordnance Test Area (OTA). The change pages were added to the draft report dated 2/2/06, making it the final report.