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U S NAVY COMMENTS ON PROPOSED REVISIONS TO THE INTERIM MEASURES REPORT
SOLID WASTE MANAGEMENT UNIT 27 (SWMU 27) FORMER BUILDING 181 SETTLING
TANK, CISTERN, AND UNDERGROUND STORAGE TANK REMOVALS NSA CRANE IN
1/24/2014
NSA CRANE

Navy review comments from Tom Brent (dated 01/24/14) with Tetra Tech's proposed revisions to the Interim Measures Report for SWMU 27 and Former Building 181 Settling Tank, Cistern, and Underground Storage Tank Removals at NSA Crane, Indiana (draft report dated 10/21/13).

General Comment #1: Note that the B181 footprint is incorrectly represented on Figure 3. The attached PDF (aerial photograph) shows the former Building 181 location in relation to the gun tubs and drop tower. Please revise Figure to be consistent with the attached aerial photograph.

Response to General Comment #1: The subject Figure has been modified to reflect the site layout indicated in the historical aerial photograph.

General Comment #2: Please include original JPEG photos (from Appendix D) on the CD.

Response to General Comment #2: The original JPEG photograph files provided to Tetra Tech by the EMAC (SEQ Vets) have been added to the CD in Appendix D. In addition, compilations of relevant SWMU 27 and B181 Area photographs (pre-IM photographs) from prior Tetra Tech reports have gathered and added to Appendix D on the CD for completeness.

Comment #1 (Executive Summary): Can the first sentence in the first paragraph at the top of page ES-3 be broken into separate sentences?

Response #1: Yes. The revision to the first sentence is shown below:

In response to the recommendations developed for SWMU 27 and the former Building 181 Area, an IM Work Plan (IMWP) was prepared and approved by Indiana Department of Environmental Management (IDEM). The IMWP was used to guide removal of settling tank residues from specific infrastructure features at SWMU 27 and the former Building 181 Area. The removed structures were no longer in use and those with unacceptable human health exposure risks could potentially release contaminants into the surrounding environment. The removal of the residues and the structures at SWMU 27 and the Building 181 Area eliminated the human exposure risks and the potential for environmental releases of contaminated residues (Tetra Tech, 2013c).

Comment #2 (Executive Summary): Remember to fill in the blank (the number of cubic yard of backfill) in the paragraph that follows the bullet list on page ES-3.

Response #2: The subject sentence has been reworded as follows:

Basins and excavations were backfilled using 4 cubic yards of flowable fill, approximately 45 tons of pea gravel, and 65 tons of top soil. Basin excavation sites were restored, regraded, and seeded in accordance with the IMWP.

Comment #3 (Section 1.2.2): Double-check the 2005 demo date for B181.

Response #3: The timing of the demolition for Building 181 has been confirmed as after 2006, but prior to June 2008. Historical aerial photographs were reviewed on Google Earth and confirmed that Building 181 was still present on the site in March 2005. A subsequent 2008 photograph confirms that the former Building 181 footprint was restored and covered with grass at that time. The text in Section 1.2.2 has been revised to indicate a more general range for the timing of the Building 181 demolition (between 2006 and 2008), as presented in the Response to Comment #4 below.

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Comment #4 (Section 1.2.2): It's not likely that wash-out operations took place in B181. However, water may have been used to cool the saw during the cutting operations.

Response #4: Agree. The following paragraphs replace the final paragraph in Section 1.2.2 to more clearly present the former uses of the Building 181 Area:

During the Vietnam conflict, a remotely-operated saw used to cut through bomb casings, was installed in Building 181. The bomb-cutting operation was directed from a remote control room constructed in Magazine 1441. The purpose of the bomb cutting was to evaluate the extent of cavities (void spaces) present in the main 2,4,6-trinitrotoluene (TNT) explosive payloads in the bomb casings to determine if there was a risk of TNT recrystallization in the explosive voids (which are far more shock sensitive than the standard TNT explosives used in bombs). The remotely-operated band saw likely required external cooling (possibly water or other cutting fluid) to control heat generation. Cooling fluids used on the band saw blade might have experienced some explosive contamination from cutting through the explosive materials inside the bomb casings. There is no indication that cooling fluids or explosive wastes were discharged to a drain, pipeline, or tank in the Building 181 Area. However, a UST located near former Building 181 could have received cooling fluids containing explosive residues and possibly other contaminants such as metals. The UST was open to the air via a 6-inch metal stand pipe.

After the bomb-sawing operations were completed in the mid-1970s, the Building 181 facility again was unused until the early 1980s, when the Navy acquired the facility from the Crane Ammunition Army Activity (CAAA). The Navy completely rebuilt the facility and redesigned it for abusive testing of lithium batteries. When another Lithium Battery Test Facility was later built in the Industrial Area of the installation and lithium battery use was a well-understood technology, Building 181 was no longer needed. Building 181 was demolished as a part of the military footprint reduction effort during 2006 - 2008. Some of the test facilities (i.e., gun tubs and battery drop tower structure) still remain on the site.

Comment #5 (Section 3.3): In the bullet list at the bottom of Page 3-3, make it clear that along with the rework of the drains at Building 133, that the B133 Pit A was also removed.

Response #5: The text bullet presenting the scope of work completed at Building 133 has been revised to emphasize that Pit 133A was removed, along with some additional pipe and drain rework, as follows:

- *Building 133 Pit A was removed. An active storm water drain trench at Building 133 that formerly conveyed flow from the building to the basin was modified and included placement of drainage pipes from the building to a nearby drainage ditch and filling the existing drainage trench with flowable fill.*

Comment #6 (Section 4.0): Remember to fill in the blank (the number of cubic yard of backfill) at the end of the second paragraph on page 4-1.

Response #6: The subject sentence in Section 4.0 has been updated to include the volume of flowable fill cement, and the tons of pea gravel and top soil required to backfill excavation areas and settling basins at SWMU 27 and the Building 181 Area. Table 2 has also been modified to present these data and Appendix G includes copies of the delivery tickets for the backfill loads noted in Table 2. The subject sentence in Section 4.0 will be reworded as follows:

Basins and excavations were backfilled using 4 cubic yards of flowable fill, approximately 45 tons of pea gravel, and 65 tons of top soil to support the site restoration process for the disturbed areas within SWMU 27 and the Building 181 Area during the IM activities (Table 2).

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Comment #7 (Table 1 – Summary of Disposed Materials): For the lead-based paint chips listed in Table 1, the NSA Crane Hazardous Waste Storage Facility is not the disposal location.

Response #7: Agree. Supplemental manifest information for the transport and disposal of the hazardous waste lead-based paint chips have been located and provided to Tetra Tech. Manifest copies have been added to Appendix F. The cited entry in Table 1 and relevant text in Section 3.4 have been modified to more correctly describe the lead-based paint chip disposal as presented below:

**TABLE 1
SUMMARY OF DISPOSED MATERIALS FROM IM ACTIVITIES AT
SWMU 27 AND FORMER BUILDING 181 AREA
NSA CRANE, INDIANA**

Material	Quantity (units)	Tracking No. / Date	Disposal Location
Lead-based paint chips (collected from settling basin railings and other painted metal surfaces)	One 5 gallon bucket, combined with similar lead waste: Line #24 – three "DF" containers (fiberboard or plastic drums, barrels, kegs) weighing 113 pounds	011238045JJK / 11/08/2013	AES Environmental, LLC 1689 Shar-Cal Road Calvert City, KY 42029

The container of lead-based paint chips was transported with other similar hazardous lead waste containers by American Transportation Solutions, LLC, of Sewickley, Pennsylvania by truck to the AES Environmental, LLC hazardous waste treatment, storage, and disposal facility in Calvert City, Kentucky.

The waste disposal manifests for the non-hazardous residues and liquids removed from the settling tanks, pits, cistern, and UST and the hazardous waste manifest that includes the lead-based paint chips container (line #24) are presented in Appendix F.