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BRAC CLEANUP TEAM MEETING 28 AUGUST 2014 ATTENDENCE RECORD, MINUTES,
DECISIONS AND ACTION ITEMS MILLINGTON SUPPACT TN
8/28/2014
RESOLUTION CONSULTANTS



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MINUTES FROM BASE CLEANUP TEAM MEETING
28 AUGUST 2014
Naval Support Activity Mid-South

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Agenda Topics

BRAC

- Status of Area of Concern A Long Term Monitoring
- Solid Waste Management Unit 15 Investigation and proposed soil investigation

ER,N

- Implementing Facility Action Plan
- UXO 1 and 2 Overview
- Solid Waste Management Unit 17 and 22
- Solid Waste Management Unit 14
- Solid Waste Management Unit 2
- Solid Waste Management Unit 39 (perched and fluvial groundwater)
- Review Action Items and schedule next BCT meeting



830 AM — Check in

The meeting started with introductions of new Navy members. NAVFAC Mid-West will cease to exist on October 1 resulting in NSA Mid-South falling under NAVFAC Southeast (SE). Karen Campbell from NAVFAC SE Gulf Coast IPT will be taking over as the RPM for the ER,N sites from Howard Hickey who will begin working for NAVFAC Mid-Atlantic. Helen Lockard from NAVFAC SE is the Restoration Lead for the Gulf Coast IPT. Dave Barney with BRAC PMO will be taking over the BRAC sites from David Criswell who is retiring at the end of September. Monique Nixon with NAVFAC LANT has been managing UXO 1 and 2 (ER,N) for Howard H. but is leaving the Navy for San Antonio where she will work with the Air Force.

Area of Concern A

Ben Brantley with Resolution Consultants provided an overview of AOC A plumes, stratigraphy, LTM program, and the status of the LTM reports. The 2013 LTM report was approved by TDEC in July and the upcoming 2014 LTM report is scheduled for submittal in October/November 2014. The 2013 TCE impacts noted at property line well 007G48LF in 2013 were not repeated in 2014. The well had a history of non-detects for TCE and groundwater mounding from the former substrate injections was believed to be responsible for the plume shifting to the northwest, impacting the well.

Action Item — none

Solid Waste Management Unit 15

Ben B. provided a summary of the SWMU 15 site history and the results from the recent investigation data to delineate the extent of benzene in groundwater. Five upper fluvial monitoring wells (015G05UF — 015G09UF) were constructed in January 2014 and nine more were constructed in May 2014. Benzene in groundwater above 1,000 ppb and the 5 ppb MCL were depicted and the plume orientation suggests a source area to the east, where fuel loading/unloading and other operations occurred during the fuel farm operations. Before further well construction activities, a soil investigative phase is proposed to identify whether soil sources remain near the former structures. Worksheets #11 (DQOs), #15 (Reference Limits), and #17 (Sampling Design and Rationale) from the draft SAP Amendment were reviewed with the BCT. Jim Heide mentioned that there was a cut off valve to the fuel pipe main that supplied fuel to the aqua system that should still be present today and may have leaked in the past (the piping structures were reportedly drained but the main and secondary lines leading the truck loading/unloading area were reportedly left in place). The SAP amendment was found acceptable by the BCT; however, Charlie Burroughs



requested that "Corrective Action" be changed to "Interim Action" and extra borings be placed near the former pipe main. Resolution Consultants indicated field activities could begin in September pending quick approval on the SAP Amendment.

Action Item — Resolution Consultants to incorporate Charlie B.'s comments in the draft SAP Amendment and send to TDEC for review and approval.

Action Item — Resolution Consultants to coordinate with Jim Heide on locating fuel main valve before commencing field activities.

Facility Action Plan

Charlie Burroughs and Roger Donovan provided an over-view of the Facility Action Plan (FAP) process that they would like to see incorporated at NSA Mid-South. The FAP was initially used by the Army and Air Force for internal budgetary and scheduling purposes; however, TDEC eventually adopted it, enabling a holistic and faster approach to facilities with multiple sites. An annual planning meeting is held where the stakeholders agree to the approach/scope of work for each site which is memorialized in the FAP, avoiding the traditional, iterative process of individualized work plans and reports. Upon agreement on the Plan, TDEC simply needs a notification before field activities start. Roger D. indicated that TDEC can provide "approvals" of SAPs and other milestone documents that Navy may require for internal purposes, if necessary. At the year's end, a single LTM/LTO/Investigative document is submitted for the Base, which outlines the findings and recommendations, and is used to update the following year's FAP.

Only sites that do not have a final remedy are included in the FAP and adopting the FAP will require a Permit Modification since it replaces the traditional RFI/CMS/CS language in the permit. Sites with a Final Remedy (i.e., SWMU 2) would not be included in the FAP; however, if the Navy wished to include the LTM and LUC inspections in the year-end report it is an option.

The Navy's execution plans are normally prepared in June/July so completing the FAP before then would facilitate internal budgeting and scheduling required in NORM. The FAP planning meeting is scheduled for 13 and 14 November 2014.

Action Item — Roger D. to forward Arnold Air Force Base's FAP to Resolution Consultants, which has more detail than the Army Holston example and is a better go-by for use at NSA Mid-South.
Completed on 3 September 2014.



Action Item — Resolution Consultants and QE 2 to prepare draft scoping documents in advance of the meeting in time for internal Navy review.

MRP Sites UXO 1 and 2

Resolution Consultants provided a status of the UXO 1 and 2 deliverables. Documents pending approval from Navy are the focused CMS (Draft) and from TDEC are the RFI Addendum submitted on 25 July 2014. Ben B. stated that the addendum contained results of the areas of elevated concentration resampling and the added exposure scenario requested by TDEC (child-trespasser tracking lead dust into home). One of the two resampled areas came back with elevated lead levels in surface soil while the other was within the site range, indicating the original data from the later location was likely biased high due to metallic lead in sample (the lab sieved the confirmation samples). C. Burroughs expressed concern in March 2014 BCT meeting that children and adult trespassers coming into contact with site soils could track lead into nearby homes (family housing is approximately 300 feet east of the northern edge of UXO 2) and residual lead dust from shoes could accumulate in homes, creating an exposure pathway to housing occupants, particularly infants. Ben B. mentioned that the RFI Addendum contained the risk evaluation and the risk with the potential exposure scenario was below the risk thresholds. Ben B. also mentioned that the focused CMS also contains the proposed land use controls, signage to be used, inspection checklist, and locations for selective plantings. Karen Campbell indicated the importance of the language for the proposed signs to ensure it was clear and to minimize potential misunderstandings by both contractors and Base personnel.

Discussion also centered around status of the MRP sites and what program they should be listed in. Typically MMRP sites are under the CERCLA program. David Criswell indicated while that was the past preference, the Navy has moved to including them under RCRA and he is aware of sites in South Carolina where they were included in the RCRA permit.

Action Item — NAVFAC SE and NSA Mid-South to address language for Signs before forwarding draft CMS to TDEC for review.

Action Item — Helen Lockard to check Navy Environmental Restoration Program guidance and Navy Legal to clarify whether MMRP sites can be included in Base's RCRA Permit.

Action Item — Charles B. and Roger D. to check State guidance and/or precedence regarding handling and closeout of military munitions sites.



Lunch — 1130 - 1300

Solid Waste Management Units 17 and 22

Ben B. indicated these two SWMUs were proposed for NFA but TDEC requested some additional data to address some data gaps before finalizing the SWMUs in the Permit. Three temporary upper-fluvial wells were constructed at SWMU 17 to determine whether 1,2-dichloropropane, identified in RFI, was still present. The recent data failed to replicate the earlier RFI findings. A tech memo submitted to TDEC with the SWMU 17 data has been approved.

A SWMU 22 site map with four soil borings was shown to the BCT where soil samples were collected for petroleum analysis. Due to failures in laboratory QC, the locations were resampled and un-validated data presented to the BCT, showed the petroleum constituents detected in soil screened against the TDEC Soil Residential Screening Values from the UST Division and the U.S. EPA RSLs (residential w/ HQ=0.1). Concentrations were below both standards except Naphthalene which was detected in two soil samples slightly above the RSL. Questions were raised regarding the J flag qualifier and why it was not present on the lower concentration samples (i.e., 022S35LS — 0.184 mg/kg) while it was on the higher concentration samples (i.e., 022S37LS — 9.82 J mg/kg). Monique N. stated there are multiple reasons for assigning a "J" qualifier including dilutions associated with higher sample concentrations, blank contamination, etc. Ben B. indicated the data would be validated and provided in a tech memo to the Navy with an explanation for the qualifier. Roger D. asked whether the site was originally addressed under the UST Division guidelines and Ben. B confirmed that it had been.

Action Item — Resolution Consultants (Corey C.) to submit SWMU 22 tech memo for Navy and TDEC approval.

SWMU 14/46

Matt T. summarized the July 2014 sampling event at SWMU 14/46. Groundwater was sampled from monitoring wells 014G02LS, 014G12LS, 014G13LS, and 014G14LS on 28 July 2014. Effects of the April 2013 HRC[®] injection were observed in the July 2014 data set: most noticeably in wells 014G02LS and 014G14LS (these two wells historically contain the highest contaminant concentrations). TCE concentrations exceeded the U.S. EPA Region 9 RSL in well 014G02LS (only at 12.6 ppb). Vinyl chloride exceeded the RSL in wells 014G02LS and 014G14LS. QE² obtained a duplicate sample from 014G14LS. The TCE concentration from the duplicate sample was only 3.96 ppb, which is below the RSL.



The increase of vinyl chloride, iron, and methane indicate subsurface reducing conditions continue at the site, enhancing the reductive dechlorination process. TCE concentrations have lowered significantly in 2014 as a result of the April 2013 HRC injection. Matt T. stated that a second injection of HRC[®] is not necessary at this time as the HRC[®] remains active within the loess aquifer. The next sampling event at SWMU 14/46 is scheduled for October 2014.

Action Item — Matt T. to provide 2013 Interim Measure Report to NAVFAC for review.

SWMU 2

Matt T. summarized the July 2014 sampling event at SWMU 2. Groundwater was sampled from monitoring wells 002G02DA, 002G03DA, 002G24DA, 002G25DA, 002G26DA, and 002G28DA through low flow purge methods on 28-29 July 2014. All samples were analyzed for Total VOCs (8260b). Groundwater concentrations in all monitoring wells remain similar to previous sampling events. All sample results were below the ACLs with the exception of a slight hit of methylene chloride in 002G03DA (similar result in January 2014). Matt T. discussed that the hit was an estimated value (between the MDL and the LOD) and is flagged with a "J" qualifier. It was discussed that methylene chloride is a common lab contaminant at low levels and is typically seen in the quality control samples such as the method blank if that is the case. The method blank for the batch 002G03DA sample had no methylene chloride detected above the MDL. We did have a slight decrease of cis-1,2-DCE in well 002G24DA. The TCE contaminant plume remains within the vicinity of 002G03DA and 002G28DA. Three surface water samples (002WWEST, 002WCENT, and 002WEAST) were also obtained. All surface water samples were non-detect with the exception of low detections of cis-1,2-DCE in each of the surface water samples (<1 ppb) and acetone in 002WCENT and 002WEAST. Each surface water detection contained "J" qualifiers due to the estimated concentrations being between the MDL and LOD or right at the LOQ. Additional clarification from the laboratory will be provided by Matt T. at a later date.

Matt T. discussed that all wells were inspected, with the exception of well 02GGM02DA, during the July 2014 monitoring event. All wells were in great shape and operable. Well 02GGM02DA was inspected on 27 August 2014. A copy of the updated inspection was emailed to Rachel on 2 September 2014. Photos of the site and fencing were shown during the presentation.

Action Item — Matt T. to provide 2013 LTM report to NAVFAC for review.

Action Item — Matt T. to provide clarification to NAVFAC for the low level "J" qualifiers from the laboratory and methylene chloride hit.



SWMU 39 Fluvial Groundwater

Howard H. summarized recent remediation and monitoring activities conducted by Lee and Ryan at SWMU 39. The relatively high TCE concentration detected in an upper fluvial interval by Lee and Ryan prior to remedy implementation, suggests a possible shallow source area. TCE has since been remediated/dissipated; however, Resolution Consultants had been funded for conducting a sub-slab soil investigation to address a possible lingering source area beneath the building before transitioning to a LTM final remedy. Elements of the SAP (10 angled borings on either side of Building S-203) were presented to the BCT. Charlie B. stated the Lee and Ryan data was suspect given the long screen lengths of their wells and the wells having silted in. He suggested first verifying whether the upper-fluvial TCE detection can be replicated and then deciding whether to proceed with the sub-slab soil investigation. Ben B. stated that additional wells were necessary to complete the perched groundwater investigation at SWMU 39's former S-74 building. An upper fluvial monitoring well could be constructed at the same time to try and replicate the Lee and Ryan detection. The SAP Amendment will be held, pending the outcome of the confirmation sample results.

Action Item — Collect upper fluvial groundwater sample near former well 39G25LF during SWMU 39 perched groundwater investigation and distribute data to BCT.

Solid Waste Management Unit 39 Perched Groundwater Investigation

Ben B. provided a brief history of the perched groundwater investigation. This is a relatively recent aspect of the SWMU, resulting from when the building slab was removed in 2012, and water entered an excavation near where a soil removal action was underway at the south-jutting portion of the building slab. During over-excavating activities, the removal contractor encountered the side-wall of former tank excavation. Low concentrations of PCE were detected in the water that entered the excavation resulting in the excavation being backfilled, triggering the perched groundwater excavation. Twelve 20-foot long monitoring wells have been constructed in an effort to delineate benzene, vinyl chloride, and cis-1,2-DCE in the perched groundwater. Three wells contained an MCL exceedance for at least one of the three chemicals. The same wells were resampled in July 2014 to verify the exceedances which were generally replicated in two of three wells, the exception being well 039G02LS which formerly contained 49 µg/L of VC and had 0.8 µg/L during re-sampling. Three additional monitoring wells were proposed north, east, and southeast of well 039G11LS in an effort to delineate the extent of groundwater impacts. The BCT had no comments on the proposed wells. Roger D. asked what the long-term strategy was for the site,



and Ben B. indicated if the extent of the impacts are isolated to the three wells, in-well injection may be proposed as the remedy.

Action Item — Resolution Consultants to construct three perched monitoring wells at locations presented and distribute data to BCT.

Parking Lot

Helen Lockard asked the Team whether they would be interested in a NIRIS demonstration (Naval Installation Restoration Information Solution). NIRIS is the Navy's web-based repository used for managing environmental sample data, LUCs, documents/reports, among other things for their ER,N, BRAC, and MMRP programs. A public portal can be set up for anyone wishing to access the Base's administrative record. The BCT was agreement that it would be helpful to have this knowledge.

Action Item — Helen Lockard to coordinate with Bob Fischer for a NIRIS demonstration to the BCT at a date to be determined, but tentatively at the next BCT meeting.

Review Action Items and Schedule Next BCT Meeting

Outstanding action items from the March 2014 BCT were reviewed and all were addressed. The next BCT meeting is scheduled for 13 November 2014, with a possible carryover day to the 14th. The meeting was adjourned at 1640.