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MCRD PARRIS ISLAND
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MINUTES FROM 29 NOVEMBER 2005 TECHNICAL REVIEW COMMITTEE MEETING MCRD
PARRIS ISLAND SC
12/16/2005
TECHLAW



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MEMO

To:	Ms. Lila Koroma-Llamas, U.S. EPA Task Order Contracting Officer Representative
From:	Mr. Mac McRae, TechLaw Task Order Manager
Subject:	MCRD Parris Island, Technical Review Committee (TRC) Meeting Minutes, November 29, 2005, MCRD Parris Island, South Carolina
Task Order:	Task Order No. 008, Site No. 04NY; Task 2 Draft Deliverable
Date:	December 16, 2005

ATTENDEES

Tim Harrington (MCRD PI)
Lila Llamas (US EPA)
Jerry Stamps (SCDHEC)
Don Hargrove (SCDHEC)
Art Sanford (NAVFAC)
Mac McRae (TechLaw)
Mirna Zahlan (ECC)
Debra Kramer (ICLD)
Mark Sladic (Tetra Tech)
Reed Armstrong (Community member)
Dennis Forsythe (Community member)
John Holloway (Community member)
Jim Mackey (Community member)
Al Segars (Community member)

Mr. Tim Harrington welcomed all attendees. Mr. Harrington said the agenda for the technical review committee (TRC) meeting included an update of the activities at Site 12/solid waste management unit (SWMU) 10 Jericho Island and Site/SWMU 45, the former dry cleaning facility. Mr. Harrington introduced Ms. Mirna Zahlan of Environmental Chemical Corporation (ECC). Ms. Zahlan provided the update of the current activities at Jericho Island.

SITE 12/SWMU 10 Jericho Island:

Ms. Zahlan reported that ECC mobilized to the site on October 24, 2005. Site preparation and equipment operation began on October 30, 2005 and to date the temporary dam construction at Area 3 is almost complete. Ms. Zahlan stated that six different areas on Jericho Island would require excavation. Currently, truck traffic is light with only two trucks leaving the site on November 28, 2005 and four trucks, averaging three trips each, leaving the site on November 29,

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2005. Ms. Zahlan said that excavation activities will continue for approximately six weeks, weather permitting. Once excavation activities are complete, restoration of the marsh areas will begin and continue for approximately two weeks. Ms. Zahlan reported that ECC has been on-site for approximately five weeks to date.

Mr. Dennis Forsythe asked if anyone in the community has complained about the work. Ms. Zahlan indicated that no one has complained yet, but truck traffic has been light. Mr. Reed Armstrong asked what area is currently being excavated. Ms. Zahlan replied that a small surface debris pile has already been excavated and ECC is currently excavating a polynuclear aromatic hydrocarbon (PAH) contaminated surface soil area. Mr. Armstrong asked if any road improvements were made. Ms. Zahlan stated that some clearing was done but no tree cutting. Stone and sand were brought in and placed in soft spots in the road. The roads are maintained by a bulldozer. High strength durabase mats were used to stabilize the debris causeway.

Mr. Jim Mackey asked if all wetland areas will be restored. Ms. Zahlan said that not all excavation areas are wetlands, such as the debris piles and inland areas. The inland excavation areas will be restored by hydroseeding. Mr. Harrington said that ECC is still working on the eco restoration component of the work plan. Mr. Mackey asked what the eco restoration component was. Mr. Harrington said it provides details of how to restore the marsh.

Mr. Al Segars stated that the Georgia Department of Natural Resources (DNR) has replanted some marsh grass due to natural die off and that they may have some data that would be helpful regarding the marsh restoration. Mr. Segars provided the name of the Georgia DNR contact, Ms. Jan Mckinnon, in Brunswick, Georgia. Mr. Forsythe said that a new Citadel faculty member named Dan Gustafson specializes in marsh grasses and die offs and that this individual may be helpful with the marsh restoration efforts.

Mr. Armstrong asked what would happen to the causeway. Mr. Harrington said that it will be removed, but the issues are to what elevation, how to replant, and what are the success criteria. Mr. Forsythe asked if there were any pre-causeway photos. Mr. Harrington said "no". Mr. Armstrong asked if the causeway area is flushed during high tide. Mr. Harrington said that he was not sure if the area is inundated with every tide.

Mr. Armstrong asked Mr. Holloway if he had heard anything from the community regarding the work at Jericho Island. Mr. Holloway replied that someone did call and asked if an electrical worker establishing the 911 address had a work permit, but that no one complained about the trucks. Mr. Harrington said that he had not yet met with Ms. Carolyn Davis, the Shell Point community leader.

Mr. Segars asked if any collaboration with academics regarding remediation efforts at Parris Island had been considered. Mr. Harrington said that MCRD is interested in that type of partnership. Mr. Forsythe asked if there were discussions with academic professionals. Mr. Harrington said that it is within their mission to partner with academic institutions. Mr. Segars

said that it would be mutually beneficial. Mr. Harrington said that it would need to be beneficial to both MCRD and the county.

Mr. Armstrong asked who is obligated to monitor the restoration. Mr. Art Sanford said it was the Navy's responsibility. Mr. Mackey said that a case study should be developed and made available to others to view. Mr. Harrington said it would be a good idea if we already had a database or some matrix or case history to follow. Most seem qualitative and not quantitative as with the marsh grass success criteria. Mr. Sanford said that the stem count criterion in 1-2 years is not really working at Site 1 where the spartina did not grow.

A discussion among the TRC began regarding the hiring, partnering and co-oping of academic professionals, college graduate students and others outside of the normal contracting vehicles and their involvement in the remediation and restoration activities at Parris Island. Mr. Harrington said that there are programs available but that MCRD prefers academic institutions and matching funding. Mr. Armstrong asked if this was novel for the Navy. Mr. Harrington said not really, but it is probably too late for the Jericho Island Site. Mr. Segars said that he would provide Mr. Harrington with a contact name if he wanted to use graduate students for any long term monitoring (LTM) work. Mr. Sanford said that he would need a contracting mechanisms to make this work.

Mr. Armstrong asked what the expected schedule for complete removal was. Ms. Zahlan said that excavation activities would last approximately six weeks followed by two weeks of restoration activities. One foot of material will be excavated and verification sampling will be conducted. If verification samples are clean, no more sampling is required. If the verification samples are not clean; additional material will be removed and the area re-sampled. Ms. Zahlan said that excavation would be completed in January 2006 and restoration activities completed by the end of January 2006.

SITE/SWMU 45

Mr. Sanford reported that in early summer 2005, a groundwater investigation was conducted to determine if emulsified zero-valent iron (EZVI) technology was viable at the site. The investigation occurred at the hot spot where the original spill occurred. Mr. Mackey asked if this was the source area. Mr. Sanford said "yes" and that Tetra Tech had prepared the feasibility study.

Mr. Mark Sladic explained that membrane interface probe sensor (MIPS) technology utilizes a heated probe to detect volatile compounds in the subsurface. MIPS data are used as a targeting tool and provide a vertical profile of contamination. Mr. Armstrong asked what the released chemical compound was. Mr. Sanford said trichloroethene and perchloroethene (TCE/PCE). Mr. Armstrong asks if that converts to something else. Mr. Sladic said that the breakdown products include vinyl chloride which is very volatile under aerobic conditions. Mr. Armstrong asked if some contaminants migrated further. Mr. Sanford said that all sides are bounded by wells, but there is some concern that the plume is headed towards an occupied building.

Mr. Sladic reported that a possible second source area may be linked to the primary source area but it has not been determined if they are related. Mr. Armstrong asked the location of the treatment area. Mr. Sladic said that all remedies are in-situ and have been evaluated in the feasibility study (FS). Mr. Mackey asked if the plume was diluting as it migrates. Mr. Sladic said a potential concern is plume dilution. Precipitation and recharge greatly affect plume movement. Mr. Armstrong asked if Parris Island is in a groundwater recharge area. Mr. Sladic said that it is in the vicinity but not at this site. Mr. Armstrong asked what was the timing and schedule of the upcoming events. Mr. Sladic said that some proposed work is experimental technology. Mr. Mackey asked if a cost analysis was done. Mr. Sladic said that it was done as part of the cost comparisons against other remedies presented in the FS. Mr. Sanford said that there is money in the budget for Site/SWMU 45. Mr. Mackey asked if the source is breaking down. Mr. Sladic said that the remedial technologies are designed to address dense non-aqueous phase liquid (DNAPL). Mr. Armstrong asked if there was a core DNAPL plume. Mr. Sladic said no, however, there may be isolated pockets of DNAPL. Contaminants concentrations measured in groundwater give a good indication that DNAPL is present.

Mr. Armstrong asked if cleaning fluids are used at other bases. Mr. Harrington said yes, chlorinated solvents are used at other bases. Mr. Sladic said that every site is different. Mr. Mackey asked if soil vapor extraction (SVE) was considered. Mr. Sladic said that SVE would only work if the wells were placed directly over the DNAPL. Mr. Harrington said that the results from the EZVI innovative technology are promising and indicate that the site is a good candidate for that technology. Mr. Sanford said that EZVI investigation was being conducted by the folks at the National Aeronautics and Space Administration (NASA).

Mr. Armstrong asked what sites were scheduled after Site/SWMU 45. Mr. Sanford said that there are not any big ones. The main drivers for the NPL listing were Sites 1, 2, 3, 12, and 45. The Navy has a ranking system and the high risks sites get funded first. Mr. Armstrong asked about Site 13 Area C. Mr. Sanford said that this Site was still under review. Mr. Armstrong asked about SWMU 14, the storm sewer outfall. Mr. Sanford replied that it was a small site.

END