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Meeting Minutes

Meeting Subject: Norwalk Tank Farm Restoration Advisory Board (RAB) Semiannual Meeting	Meeting Date: <u>23 October 2003</u> Meeting Time: 6:30 p.m. Meeting Place: Norwalk Arts & Sports Complex
RAB, PROJECT TEAM, AND OTHER ATTENDEES	
<u>RAB Community Members</u> D. Caughey E. Garcia B. Hoskins M. McIntosh (Co-Chair) W. Miller W. Sterner	<u>Other Members</u> Lt Col Alexander (DESC-AMW) (Co-Chair) T. Devoy (City of Norwalk) J. Holdren (City of Cerritos) H. Ng (WRD) A. Townsend (RWQCB) R. Tweidt (KMEP) (Co-Chair)
<u>Other Attendees</u> R. Chou (RWQCB) S. Chou (Geomatrix) E. Conard (KMEP) R. Hassan (Parsons) M. Pitta (KMEP) T. Ryland (KMEP) C. Silver (Parsons) J. Trani (DESC) T. Whyte (URS) T. Winkler (Citizen) F. Wright (DESC)	DESC-AMW . Defense Energy Support Center Americas West GSA..... General Services Administration KMEP..... Kinder Morgan Energy Partners OCCS Offsite Chemicals Cleanup Subcommittee RAB Restoration Advisory Board RBCA..... Risk-Based Corrective Action RWQCB Regional Water Quality Control Board URS..... URS Corporation WRD Water Replenishment District of Southern California
<u>Absentees</u> J. Rifilato	
<u>Not Attending</u> Dr. Duran (OCCS) Dr. Landolph (OCCS)	
<u>BACKGROUND</u> DESC-AMW and KMEP are conducting environmental cleanup activities at the area in and around the former Defense Fuel Support Point Norwalk, also known as the Tank Farm, located at 15306 Norwalk Boulevard, Norwalk, CA. The RAB is an advisory committee of local citizens and project members that reviews and comments on documents relating to the environmental cleanup. All RAB meetings are open to the public and are scheduled quarterly on the last Thursday of the month at 6:30 p.m. in January, April, July, and October unless otherwise voted on by the RAB community membership.	

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1. Introduction Lt Col Alexander, DESC Co-Chair, Meeting Chair

Lt Col Renita Alexander, Commander of DESC-Americas West, called the meeting to order at 6:41 p.m. Lt Col Alexander asked if there were any comments on the July 31, 2003 meeting minutes. Bill Miller made a motion to accept the minutes as written. Mary Jane McIntosh seconded the motion, and the motion was passed.

2. RBCA Update Shioh-Whei Chou, Geomatrix Consultants, Inc.

Rob Tweidt introduced Ms. Shioh-Whei Chou. Ms. Chou said the Regional Water Quality Control Board (RWQCB) accepted the responses on July 3, 2003 and authorized submittal of the final documents. The "Risk-Based Corrective Action, Western 1,2-DCA and MTBE Plumes" (RBCA) and "Revised Sensitivity Analysis of Fate and Transport Modeling" (Sensitivity Analysis) documents were finalized and submitted to the RWQCB on August 5, 2003.

3. KMEP Update Shioh-Whei Chou, Geomatrix Consultants, Inc.

Remediation Operations Update. Ms. Chou showed a map of the current remediation systems. Wanda Sterner asked if the southern wells were active. Ms. Chou said yes, there are 6 wells south of the property that are active. She said the soil vapor extraction system has 17 onsite and 6 offsite wells in the South-Central Plume area and 2 wells in the southeast 24-Inch Block Valve area. The system removed and destroyed 1,690 gallons equivalent of fuel since the July 2003 RAB meeting and 393,910 gallons equivalent of fuel since September 1995. Ms. Chou also showed a graph of cumulative fuel removed by vapor extraction. Ms. McIntosh suggested that in the future the graph should include a separate color to indicate the change since the last meeting.

Ms. Chou said the groundwater/product extraction system has eight groundwater wells in the West-Side Barrier area, six groundwater/product wells in the South-Central Plume area, and three groundwater/product wells and two groundwater extraction wells in the southeast 24-Inch Block Valve area. Since the July 2003 RAB meeting, a total of 138,730 gallons of groundwater have been extracted from the South-Central Plume area, 582,900 gallons from the southeast 24-Inch Block Valve area, and approximately 360,200 gallons from the West-Side Barrier area. Total groundwater removed since September 1995 includes 21.9 million gallons from the South-Central Plume area, 3.4 million gallons from the 24-Inch Block Valve area, and 10.7 million gallons from the West-Side Barrier area, for a total of 35 million gallons. Ms. Chou said 8,745 gallons of free product have been removed since September 1995. Ms. Chou showed a graph of total groundwater and product extracted. She noted that the free product recovery has flat-lined lately.

Ms. Chou next discussed the access to southern off-site wells. KMEP obtained an access agreement with the Cheshire Meadows Homeowners Association in September 2003 to maintain and monitor wells on their property. The wells were included in the October 2003 semi-annual groundwater monitoring event. Ms. McIntosh asked about the condition of the wells. Ms. Chou said the wells had accumulated some biomass and may need to be cleaned. They were purged and sampled in October

Intermediate 24-Inch Block Valve Area Update. A new soil vapor extraction (SVE) well called MW-SF-10 was installed in the vicinity of the intermediate 24-inch block valve on September 23, 2003. Connection to the existing remediation system was completed on September 26, 2003.

Ms. Chou said they accomplished several tasks in 2003. They installed two groundwater extraction wells and six piezometers in the southeastern area to address MTBE (methyl tertiary butyl ether). One SVE well and one groundwater monitoring well were installed to address the release from the intermediate 24-inch block valve. In May 2003, a moisture separator was installed downstream of the air stripper to prevent damage to

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the catalytic oxidizer. A transfer tank was installed in the West Side Barrier system to reduce pressure buildup in the conveyance pipelines to improve pump performance.

Phytoremediation Update. Ms. Chou said that in late June 2003, an expert inspected the trees and identified 60 to 65 viable trees. The remaining trees are stunted or stressed, possibly due to poor soil conditions, lack of water, or water hardness. They collected baseline groundwater samples from seven wells. They will continue to monitor these wells for a minimum of four quarters to evaluate seasonal changes. Water quality will be evaluated for bioremediation parameters and parameters that may affect plant growth, such as salinity, chloride, and TDS (total dissolved solids). Cleanup activities were performed in the area in August 2003 in preparation for further phytoremediation evaluation activities. Mr. Tweidt said that they stressed the trees to try to get the roots to go down to the groundwater. They used City water for irrigation. Ms. Chou said they think the trees have reached groundwater, since many trees are doing well without watering. Right now they are gauging the wells in the area to get an idea of what groundwater is doing. Ms. Chou showed a diagram of the phytoremediation process. The roots extract the impacted groundwater, and then the constituents are metabolized within the trees. Bob Hoskins asked if there is an identifiable pattern within the stressed trees that could give some insight. Ms. Chou said yes, the stressed trees consist of two rows of three columns in the southern plot. Ms. Chou showed a map plotting the trees as well as two photographs.

Next Mr. Tweidt introduced Mike Pitta and Terri Ryland of KMEP. Ms. Ryland will be transitioning into the role of KMEP Co-Chair. Ms. McIntosh requested that Eric Conard be sure that Terri is given all the information needed to be sure the flow of information is consistent. Mr. Tweidt will likely attend the next meeting as Co-Chair, then Mr. Conard and Ms. Ryland will attend the meetings.

Ms. McIntosh asked if there was any more information about using liquid silica as leak protection around KMEP valves, instead of incasing them in concrete vaults, as suggested by Dr. Daoud Alsawaf at the previous meeting. Mr. Tweidt said they had concerns about moisture getting trapped against the metal in the valves. Instead, KMEP is looking at increased monitoring, including weekly monitoring of the snifertubes. Gene Garcia asked if Dr. Alsawaf meant silicone or silica. Mr. Tweidt thought he meant silicone, but Ms. McIntosh said Dr. Alsawaf mentioned injecting liquid silica around the valves.

Mr. Garcia asked if they had given any more thought to installing new wells in the property two lots to the east of the Chang property [south of the Tank Farm]. Mr. Tweidt said they will look at the existing offsite wells to see if there are any data gaps needed to be filled. Ms. Chou said they started getting data last week from the offsite wells.

Theresa Devoy asked how many wells are in the area offsite to the west. Joe Trani said there are at least 14. Mr. Hoskins said that when they test those wells, the truck exudes a terrible odor during purging (across from Tank 8055). Mr. Tweidt said that they will go out with the truck next time to check on it.

Hoover Ng asked about the product recovery graph flattening—is it worth continuing or concentrating on the offsite chemicals, and how do you measure success of the project? Mr. Tweidt said one issue is the regulatory driver. They are seeing decreases over time. The contamination is onsite, for the most part. Ana Townsend said that we have always been striving to reach MCLs (maximum concentration levels). Ms. Townsend also introduced Rebecca Chou, her boss at the RWQCB, who was in attendance.

4. DESC-AMW Update Redwan Hassan, Parsons

Central Plume Remediation System Update. Redwan Hassan introduced Cannon Silver, a project engineer for Parsons who is also working on the Norwalk project. Mr. Hassan said that the Central Plume remediation system has removed a total of approximately 255,469 gallons of hydrocarbon mass. Approximately 141,840 gallons of fuel have been recycled and destroyed, including 55,534 gallons through free product recovery, 84,908 gallons through soil vapor extraction, and 1,396 gallons of dissolved phase hydrocarbons. In addition, an estimated 113,629 gallons have been removed through bioremediation. Approximately 41.5 million gallons of water have been treated and discharged offsite. Mr. Hassan showed a graph of the free product and soil vapor extraction summary. Mr. Hassan said the system was shutdown for a period of time. He said Parsons conducted a review to get better results and optimize the system.

Remediation System Compound Sound Attenuation. A neighbor raised noise concerns at the July RAB meeting. Noise measurements were collected near the source [the Central Plume remediation system] and from 100 feet away on August 5, 2003. Since then, Parsons replaced the main compressor, installed silencers, and installed a sound-insulating box in the remediation system. Then they conducted follow-up noise measurements. The noise levels dropped considerably. Mr. Hassan showed pictures of the old and the new equipment.

Southeast Water Coalition Meeting. Mr. Hassan next discussed a presentation given at the Southeast Water Coalition meeting held on August 20, 2003 at Norwalk City Hall. Parsons gave the group an update on the Tank Farm remediation. They discussed site background, remediation systems, and the progress cleaning up groundwater contamination.

DESC/Parsons/LARWQCB Meeting Recap. Mr. Hassan said that a meeting was held on October 2, 2003 at the Tank Farm to discuss cleanup progress and priorities, including evaluation results, remediation cost estimates, the truck fill station, the oily waste area, and the Tank Farm eastern boundary. The group agreed on areas of concern to be cleaned up to bring the site to closure: the soil beneath the tanks; the truck fill area; and the oily waste area. Parsons may cap the oily waste area if they do not detect any VOCs (volatile organic compounds) during planned sampling in the area.

Tank Farm Remediation Cost Estimate. Mr. Hassan said that DESC asked Parsons to look into evaluating three options to enhance remediation: remove the tanks; cut access holes and remove the floating roofs; and remediating the soil with the tanks in place. They are working on cost estimates. It will cost approximately \$300,000 to remove the eight tanks that were identified to potentially have soil contamination beneath them. Mr. Hassan said that the optimum would be to remediate with the tanks in place. They would install SVE wells with slant drilling. The SVE wells generally have an influence of approximately 60 feet, which is equal to the radius of the tanks. The tank bottoms would then help to seal escaping vapors, improving the SVE effectiveness. The entire draft costs are due to DESC for review by November 20, 2003.

System Evaluation. Mr. Hassan said that Parsons performed a system evaluation in September 2003. They measured product thickness, vapor, and groundwater parameters both pre- and post-shutdown. The post-shutdown observations found that hydrocarbons increased, which showed that the current horizontal SVE wells are working effectively. They also found that oxygen increased and carbon dioxide increased, which showed active bioremediation. They observed elevated temperature and lower pH, which showed active groundwater bioremediation. Dissolved oxygen was depleted, showing that more biosparge wells are needed.

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Based on the evaluation, Parsons recommended the following to optimize product recovery: adjust the skimming depths in existing total fluid (TF) wells; turn on/off certain TF wells to allow product to recharge, then skim off product without pumping a lot of water; and to pump product from additional wells. Mr. Hassan said Parsons would consult with KMEP regarding pumping rates and how they would affect each other's systems. To optimize biosparging system to address areas still depleted in oxygen, Parsons recommended to reprogram existing biosparge wells and to add additional biosparge wells. They also recommended soil vapor extraction underneath the tanks.

For the Central Plume, Parsons recommended optimizing product recovery; optimizing the biosparging system; conducting SVE underneath tanks; optimizing pumping rate/locations within the dissolved Central Plume; installing monitoring wells along the eastern boundary; and proceeding with the truck rack remediation.

Tracy Winkler asked if the \$300,000 estimate was for tank removal. Mr. Silver said yes, that estimate was just the expense of having the tanks removed, but they may not remove the tanks due to the cap benefit. Ms. McIntosh said we had discussed at a previous meeting that the tank bottoms may remain. Mr. Hassan said this was one of the options they were considering. He also said that they can drill through the concrete for direct access, but they prefer angle drilling. Ms. Devoy asked about the evaluation factors. Mr. Hassan said the factors are cost, effectiveness, and timeframe.

5. Set Date and Agenda for Next Meeting

The next RAB meeting will be held **Thursday, January 22, 2004, at 6:30 p.m.** in the Norwalk Arts & Sports Complex.

6. Public Comment Period

Ms. Devoy suggested using color maps at least annually to show remediation progress (such as was used at a previous meeting by Dr. Alsawaf). Ms. Devoy also asked about a new health risk assessment Mr. Tweidt said one was part of the recently finalized RBCA document prepared for the offsite chemicals to the west.

Mr. Hoskins moved to adjourn the meeting. Mr. Miller seconded the motion. The motion was passed, and Lt Col Alexander adjourned the meeting at 8:09 p.m.

ACTION ITEMS

Item	Responsible Party	Due Date
Next RAB meeting	All	1/22/04