FINAL

Meeting Minutes

Meeting Subject: Norwalk Tank Farm Restoration Advisory Board (RAB) Quarterly Meeting	**Meeting Date**: **25 January 2007** **Meeting Time**: 6:30 p.m. **Meeting Place**: Norwalk Arts & Sports Complex

RAB, PROJECT TEAM, AND OTHER ATTENDEES

RAB Community Members
E. Garcia
B. Hoskins
M. McIntosh (Co-Chair)
W. Miller
W. Sterner
T. Winkler

Other Members
A. Figueroa (City of Norwalk)
E. Erickson (RWQCB)
M. Pitta (KMEP) (Co-Chair)
Lt. Col. Ramer (DESC-AMW) (Co-Chair)

Other Attendees
A. Armendarez (Asm. Mendoza)
J. Brady (Geomatrix)
B. Cardenas (Office of G. Napolitano)
S. Chou (Geomatrix)
S. Gandhi (Parsons)
S. Hariri (DTSC)
R. Hassan (Parsons)
N. Irish (The Source Group)
K. Lee (RWQCB)
M. Lucas (Parsons)
Dr. M. Saul (NLMUSD)
C. Sloacum (Sares-Regis)
T. Spencer (Resident)
T. Whyte (URS)

Absentees
D. Caughey
J. Holdren (City of Cerritos)
N. Matsumoto (WRD)

Not Attending
Dr. Duran (OCCS)
Dr. Landolph (OCCS)

Acronyms:

DESC-AMW	Defense Energy Support Center Americas West
DTSC	Department of Toxic Substances Control
GSA	General Services Administration
HHRA	Human Health Risk Assessment
KMEP	Kinder Morgan Energy Partners
LNAPL	Light non-aqueous phase liquids
MTBE	Methyl tertiary butyl-ether
OCCS	Offsite Chemicals Cleanup Subcommittee
OEHHA	Office of Environmental Health Hazard Assessment
1,2-DCA	1,2-dichloroethane
RAB	Restoration Advisory Board
RBCA	Risk-Based Corrective Action
RWQCB	Regional Water Quality Control Board
SVE	Soil Vapor Extraction
TPH	Total petroleum hydrocarbons
URS	URS Corporation
WRD	Water Replenishment District of Southern California

BACKGROUND

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.

MEETING MINUTES **25 January 2007**

1. Introduction Lt Col Ramer, DESC-AMW Co-Chair, Meeting Chair

Lt Col Jon Ramer called the meeting to order at 6:38 p.m. He asked for comments on the draft minutes from the October 26, 2006, RAB meeting. Bob Hoskins said his name should be removed from the "present" list and only appear under the "absent" list. Mary Jane McIntosh made a motion to accept the minutes with the suggested change. Mr. Hoskins seconded the motion. The minutes were approved without opposition.

Ms. McIntosh introduced some of those in attendance, including Anthony Armendarez from Assemblyman Tony Mendoza's office; Dr. Maureen Saul, Assistant Superintendent of the Norwalk-La Mirada Unified School District; Neil Irish from the Source Group; Curtis Sloacum from the development company chosen by the City for the Tank Farm site; and Tracy Spencer, a nearby resident who is also Wanda Sterner's grandson.

2. KMEP Update Mike Pitta, KMEP, and Shiow-Whei Chou, Geomatrix Consultants

Second Addendum to RAP Update

Shiow-Whei Chou said that the Second Addendum to the RAP (Remedial Action Plan) incorporated comments received from the RWQCB (Regional Water Quality Control Board] and the RAB (Restoration Advisory Board). The Second Addendum was submitted to the RWQCB in November 2006 and is pending approval. The new total fluids pumps have been ordered and received. The soil vapor extraction conveyance piping has been inspected and repaired.

Remediation Operations Update

Ms. Chou showed a map of the current remediation systems. Then she said that the Soil Vapor Extraction (SVE) System has 17 onsite and 5 off-site vapor extraction wells in the South-Central Plume area. There are two vapor extraction wells in the Southeastern 24-inch Block Valve area. Approximately 191 gallons equivalent of fuel were removed from soil and destroyed by thermal oxidation since the October 2006 RAB meeting. Approximately 451,300 gallons equivalent of fuel were removed from soil and destroyed by thermal oxidation since September 1995. The SVE System has operated for approximately 53,402 hours since September 1995. She said that the SVE system operated continuously during the fourth quarter of 2006 with the following exceptions: during repair of knockout transfer pump (two weeks); during installation of service disconnect (one week); and during groundwater monitoring (one week). The system operated for 66 percent of the time during the quarter. Ms. Chou next showed a graph of cumulative fuel recovered by SVE, which has leveled off recently. The close-up graph does show that they have been getting some recovery lately.

Ms. Chou said that the Groundwater/Product Extraction System has eight groundwater extraction wells in the West Side Barrier area. There are six total fluids (product and groundwater) extraction wells and two groundwater extraction wells in the South-Central Plume area. There are two total fluids extraction wells and one groundwater extraction well in the Southeastern 24-inch Block Valve area. The total groundwater extracted by the system since the October 2006 RAB meeting included: 394,900 gallons from the South Central Plume area; 164,000 gallons from the Southeastern 24-inch Block Valve area; and 1,958,700 gallons from the West Side Barrier area. There were 22 gallons of product recovered manually. Total groundwater extracted since September 1995 includes: 24.1 million gallons from the South Central Plume area; 7.5 million gallons from the Southeastern 24-inch Block Valve area; and 24.9 million gallons from the West Side Barrier area. A total of 56.5 million gallons of groundwater have been extracted, and 8,833 gallons of free product have been removed. Ms. Chou said that the system operated continuously during the fourth quarter of 2006 with the following exceptions: during groundwater monitoring (one week); during pump maintenance (less than one week); and during air compressor service (less than one week). The system operated for 79 percent of the time during the quarter, which was a good up time percentage. Ms. Chou also showed a graph of the cumulative groundwater and product extracted.

Ms. McIntosh asked if there would be any other problems with maintenance. Ms. Chou said that the air compressor is 10 years old and still running. They will check on it. She said they will try to coordinate maintenance with planned system shutdowns, such as during the monitoring events. Mike Pitta said they did

a lot of maintenance last year due to some unforeseen circumstances. They hope to increase the 66 percent operation time next quarter.

3. DESC-AMW Update; and

4. Groundwater Monitoring Report Redwan Hassan, Parsons

Holifield Park & Dolland Elementary School Investigation Activities

Redwan Hassan said that Parsons submitted two work plans to RWQCB for the Park and School area. They began implementation of the first work plan. There were some changes to the work plan, including additional soil samples. Mr. Hassan then showed a conceptual site model showing how chemicals in potentially impacted soil and groundwater could potentially volatize into outdoor or indoor air. He said they will be taking soil gas samples to investigate soil vapors in the vadose zone that could affect the air. He next showed a map of the proposed soil gas sampling locations. They will be sampling primarily at the park, including along the fence line on the east side of the park. As of December 28, 2006, 51 boring locations have been installed in Holifield Park; 33 borings locations are still to be drilled at the school, pending the final access agreement. In addition, 154 probes have been installed at those 51 boring locations. There were two different methods used for soil gas analyses: a mobile laboratory was used to provide quick results, and a fixed laboratory was used for confirmation of the mobile laboratory results. Soil samples were collected at all locations and if there were any chemicals detected at the mobile laboratory, then the soil sample was analyzed at the fixed laboratory. The mobile laboratory targeted the following compounds:

- Benzene
- ethylbenzene
- Isopropylbenzene
- n-Butylbenzene
- n-Propylbenzene
- Xylene
- m/p-Xylene
- p-Isopropyltoluene
- Toluene
- MTBE
- 1,2,4-Trimethylbenzene
- 1,3,5-Trimethylbenzene
- 1,2-dichloroethane
- 1,2-dibromoethane

There were 154 soil gas samples analyzed at the mobile laboratory (plus duplicates). There were 17 confirmation soil gas samples analyzed at the fixed laboratory (at least 10% of mobile laboratory samples). A total of 36 soil samples were analyzed for Total Petroleum Hydrocarbons (TPH) as gasoline (TPHg), TPH as fuel products (TPHfp), and Volatile Organic Compounds (VOCs) (plus duplicates). Mr. Hassan showed a map of the soil gas sampling drilled locations. They went all the way east to the property line and farther south than they did in the August sampling.

The mobile laboratory soil gas preliminary results showed that with one exception, all valid concentrations reported by the mobile laboratory were non-detect or less than the risk-based California Human Health Screening Levels (CHHSLs). Benzene was detected [23 micrograms per liter (µg/L)] above its risk-based screening concentration in the sample collected at B-24 [25 feet below ground surface (ft bgs)]; however, it was not detected in shallower soil gas samples collected at 5 and 15 ft bgs in the same location. Therefore, there are no risk concerns related to vapor intrusion at B-24 because the samples collected above the 25-foot sample at 5 feet and 15 feet were non-detect and vapors move up. The fixed laboratory soil gas preliminary results confirmed the mobile laboratory results, including the result for B-24. The fixed laboratory results

provided supporting evidence for the false positive VOC (e.g., benzene in B-50 in the northern area) detections reported and rejected by the mobile laboratory chemist.

Gene Garcia asked if there were duplicates for B-24. Mr. Hassan indicated there were. Mr. Garcia asked if the were any conformity between the results. Mr. Hassan said yes, it was consistent with the hit at 25 feet. Both the mobile and fixed laboratories confirmed it. They now need to provide technical justification to DTSC for DESC's recommendation for no further samples needed to the north. Ms. McIntosh asked if the boring was still there, and if another sample could be taken. Mr. Hassan said yes, it is possible.

All of the soil detections for TPHg, TPHfp, and VOCs were below the available human-health or soil-to-groundwater screening levels. All were non-detect except for B-24 for soil. The overall conclusion of the soil gas survey is that vapor intrusion is not an issue at the park and school buildings adjacent to the park based on the results collected to-date.

Ms. McIntosh asked how long it would take from when the school access agreement is reached until field work starts. Mr. Hassan said it may take a couple of weeks for the lawyers to finalize the agreement, and then they could mobilize in a couple of weeks. Therefore it could be one to one-and-half months prior to the start of the field work. Mr. Hassan also said they need to submit a report to RWQCB 60 days after the investigation. They will wait until after the school investigation is completed to prepare and submit this report. Ms. McIntosh said she could not stress enough how important it is to get the school sampled, since there are 600 children attending there. Mr. Hassan said that DESC and KMEP are aware and agree. He will reinforce that concern with DESC. Adriana Figueroa asked when the next school board meeting would be held. Dr. Saul said that the next meeting is scheduled for February 5, 2007. Ms. Chou said that they have done a lot of work, and to date the results do not show vapor intrusion issues at the school or park. Elizabeth Erickson said that you can have chemical detections below the ground, but that does not necessarily make it a risk to someone on the surface. Rather, it gives you an idea of what is going on in the subsurface. The levels detected are below the CHHSLs, which is good. She said we still need to look at what is found in a conservative light. Kwang Lee added that RWQCB could take enforcement action against the school if needed.

Tracy Winkler asked about the depths of the sampling, and if the higher elevation of the parking lot was taken into account. Mr. Hassan said that the samples were taken to 25 feet below ground surface, which is just about the groundwater level. They did take the elevation of the parking lot into account when sampling.

Mr. Hassan next discussed the proposed sampling locations. During the soil and groundwater investigation, step-out samples around B-24 will be drilled. Based on results of the soil gas survey, they have tentatively agreed to do 50-foot step-outs to the north, south, and east. Soil gas samples will be collected at 5, 15, and 25 ft bgs. They will be analyzed on a 24-turnround time for a quick response. If they find detections above the CHHSLs, they will continue to sample until they get detections below the CHHSLs. Mr. Hassan next showed a map of the proposed sampling locations.

Ms. McIntosh said she would like B-50 retested, since that is in an area that has not had a lot of activity. Mr. Hassan pointed out that they did get non-detects in nearby borings. Ms. Erickson said that she had told Mr. Hassan previously that she did not recommend retesting boring B-50. Since the boring has been sitting there, there may not be any vapor left to sample. Mr. Hassan said they may do step-out sampling near the boring if RWQCB does not agree to their justifications for not taking further samples.

<u>SVE & GWT System Performance</u>

Mr. Hassan said that SVE Treatment was restarted in December 2006. Currently vapors are being extracted from the HW wells and the VEW West. The VW East & TFS (truck fill stand) wells are to be initiated soon. The Groundwater Extraction System operated briefly in October & November 2006. They are currently working on upgrades to the groundwater system. They plan to install new wells to contain westerly migration.

Mr. Hassan said that since April 1996, approximately 357,424 gallons of total hydrocarbon mass were removed: 55,538 gallons of free product were recovered; 1,397 gallons of dissolved phase hydrocarbons were recovered; 133,462 gallons of volatile hydrocarbons were recovered through soil vapor extraction; and estimated 167,027-plus gallons of hydrocarbons were destroyed due to enhanced biodegradation. Approximately 42.2 million gallons of groundwater were treated. Mr. Hassan showed a graph of the cumulative free product, SVE, and total mass removed.

Groundwater Monitoring Report

Mr. Hassan showed maps of the groundwater equipotential and the limits of measurable liquid-phase hydrocarbons from October/November 2005 and from December 2006. He said that the groundwater flow appeared to be the same. Next he showed TPH isoconcentration maps from November 2005 and December 2006. There are still some detections in the northern area, but the two maps are similar. The December 2006 results are consistent with the previous couple of semi-annual monitoring events. The benzene maps from November 2005 and December 2006 were virtually the same, trending towards the east, consistent with the previous year's results. The 1,2-dicloroethane (1,2-DCA) maps from November 2005 and December 2006 were both trending the same way, with no major changes. The MTBE (methyl tertiary butyl-ether) maps from November 2005 and December 2006 both showed trends from the south towards the west.

In summary, Mr. Hassan said that groundwater elevations and free-product conditions were similar to those observed in May 2006 (as reported by Geomatrix). The lateral extent and concentrations of the dissolved-phase TPH, benzene, 1,2-DCA, and MTBE plumes were similar to those detected during the previous monitoring events. The MTBE plume near the southeastern 24-inch valve area is interpreted to have a reduced extent. TPH was not detected in Exposition Aquifer. They conducted the semi-annual sampling in December this time, instead of November as they have done previously. Therefore, they hope to get the report out the RAB members for review next week. Ms. McIntosh said to be sure that everyone is copied on any responses to comments received on the report.

General Site Activities

Mr. Hassan said that activities conducted in the past three months included the annual backflow testing, which was conducted on December 7, 2006. They also conducted weed abatement on January 19, 2007. Mr. Hassan showed some photographs of the weed abatement.

Planned Activities

Mr. Hassan said that they plan to install additional groundwater extraction wells to contain the plume migration. He hopes the work plan will be approved soon so they can start the installation. They plan to expand the groundwater treatment system so it will be capable of holding a large flow. They plan on regular monitoring and sampling for the SVE and Groundwater Treatment Systems. They will also perform the risk assessment based on the Holifield Park data, once they get the data.

5. Set Date and Agenda for Next Meeting

The next quarterly RAB meeting will be held on **Thursday, April 26, 2007, at 6:30 p.m.** in the Norwalk Arts & Sports Complex.

8. Public Comment Period

Ms. Erickson gave thanks to everyone who helped with RWQCB's recent press inquiry. She said a lot of people helped. She also said that she sent in the Human Health Risk Assessment to the Office of Environmental Health Hazard Assessment (OEHHA) for review. Their toxicologist will review it to see if they agree with the conclusion of no risk. OEHHA asked for the calculations so they could check them. Ms. Erickson thanked Mr. Hassan and Ms. Chou for getting the calculations to her quickly. Mr. Pitta asked if

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OEHHA would review the school investigation results. Ms. Erickson said no, that Steven Hariri of DTSC (Department of Toxic Substances Control) would be reviewing those results. Ms. McIntosh asked how long the OEHHA review would take. Mr. Lee said it would take less than one month.

Bill Miller asked if the City had chosen a developer for the site yet. Ms. McIntosh said yes, the City has chosen Sares-Regis. Lt Col Ramer said that the sale of the property is with the Air Force Property Board. The Property board thinks the sale could be complete as soon as October or November of 2007.

Ms. Winkler asked about the phytoremediation trees. Ms. Chou said that there is enhanced biodegradation going on in the area. She also said that they did not lose any trees during the recent cold weather.

Ms. McIntosh said she received two documents in the mail. Ms. Chou said that was the final versions of the Second RAP Addendum and the Vapor Intrusion Health Risk Assessment, as discussed at the interim RAB meeting in September 2006. Ms. Winkler said she did not receive the mailer. Ms. McIntosh asked Ms. Chou to make sure all RAB members are copied.

Mr. Miller made a motion to adjourn the meeting. The motion was seconded by Ms. McIntosh and passed without opposition. Lt Col Ramer adjourned the meeting at 7:42 p.m.

ACTION ITEMS

Item	Responsible Party	Due Date
Semi-Annual Groundwater Monitoring Report	Parsons/DESC	2/2/07
Next Quarterly RAB meeting	All	4/26/07