

**FINAL
Meeting Minutes**

<p>Meeting Subject: Norwalk Tank Farm Restoration Advisory Board (RAB) Quarterly Meeting</p>	<p>Meeting Date: <u>29 October 1998</u> Meeting Time: 6:30 p.m. Meeting Place: City of Norwalk Lower Level Conference Room</p>
<p>RAB, PROJECT TEAM, AND OTHER ATTENDEES</p>	
<p><u>RAB Community Members</u> D. Caughey E. Garcia B. Hoskins M. McIntosh (Co-Chair) W. Miller J. Rifilato L. Smith W. Sterner M. Young</p> <p><u>Other Attendees</u> M. Bartee (KMEP) A. Holbrow (Geomatrix) T. McLane (KMEP) D. Sandstrom (Geomatrix) S. Sacombe (Geomatrix) M. Sepehr (Soma) J. Trani (DEO-LA) T. Whyte (WC)</p> <p><u>Absentees</u> J. Leserman (WRD) J. Pellam</p>	<p><u>Other Members</u> J. Anderson (City of Norwalk) R. Babel (City of Cerritos) S. Kilkenny (KMEP) Dr. Duran (OCCS) Lt Col Hover (DEO-LA) Dr. Landolph (OCCS) H. Marley (RWQCB)</p> <p>DEO-LADefense Energy Office-Los Angeles DESC.....Defense Energy Support Center FD-GTI.....Fluor Daniel GTI KMEP.....Kinder Morgan Energy Partners OCCS.....Offsite Chemicals Cleanup Subcommittee RBCARisk-Based Corrective Action RWQCBRegional Water Quality Control Board WCWoodward-Clyde WRD.....Water Replenishment District of Southern California</p>
<p><u>BACKGROUND</u></p>	
<p>DEO-LA and KMEP are conducting environmental cleanup activities at the area in and around the 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. unless otherwise voted on by the RAB community membership.</p>	

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Item	Description of Discussion and Action Items	Responsible Party	Due Date
1.	<p><u>Introduction</u> Mary Jane McIntosh, Community Co-Chair, Meeting Chair</p> <p>The meeting was called to order at 6:35 p.m. by meeting chair Mary Jane McIntosh.</p> <p>Bob Hoskins presented a motion to accept the minutes from the 30 July 1998 meeting as presented. The motion was seconded by Bill Miller. The motion passed without opposition.</p>	N/A	
2.	<p><u>RBCA Update</u> Scott Kilkenny, KMEP</p> <p>Mr. Kilkenny first introduced Mark Bartee, a new KMEP employee. Mr. Bartee will work on free product removal issues at the Tank Farm. He will also work on sites in San Diego and Oregon. He has a background in engineering and geology.</p> <p>The Offsite Chemicals Cleanup Subcommittee (OCCS) reviewed the implementation of the Risk-Based Corrective Action (RBCA) Workplan in a meeting on Monday, October 26, 1998. They reviewed the health risk assessment and groundwater modeling. The next step is to prepare a draft report which will be presented to the OCCS and then to the Regional Water Quality Control Board (RWQCB) for review.</p> <p>Ann Holbrow of Geomatrix discussed the health risk assessment. The goal of the process is to develop risk-based cleanup levels for 1,2-dichloroethane (1,2-DCA), benzene, and methyl tertiary butyl ether (MTBE). They looked at chemicals in the soil, groundwater, and free product on site. They also looked at risk from chemicals in the groundwater off-site. She showed a diagram of the potential exposure pathways. She also discussed a site conceptual model, which showed the steps in the exposure process from source to receptor. She said fruit was not considered an exposure pathway because the tree roots are not deep enough to be affected by the contamination.</p> <p>The basis for the assessment came from data collected since 1986, including over 800 soil samples and over 1,000</p>		

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	<p>groundwater samples. The soil samples were collected prior to the beginning of remediation, but groundwater sampling is ongoing. They also used information from free product analysis. Chemicals of potential concerns included non-volatile chemicals such as lead. Lead was found to be typical of levels throughout California, so therefore it is not likely to cause adverse health effects. Also of concern are volatile chemicals such as the petroleum-related benzene, MTBE, and 1,2-DCA. These were found frequently. Other volatile chemicals such as chlorinated solvents, including trichloethene and 1,1,2,2-tetrachloroethane, were detected infrequently.</p> <p>A chart of the summary of risk to off-site receptors showed that risk is primarily due to soil, but that was determined from old data. Free product has almost no affect to the risk. For residents, they assumed the person lived off-site for 24 hours a day, seven days a week, for 30 years. This was done to be conservative in their estimates. Ms. Holbrow next discussed a chart showing the summary of cleanup levels. She said the maximum contaminant limits (MCLs) were based on drinking water sources, but groundwater at the Tank Farm is not drinking water.</p> <p>Wanda Sterner asked about the lead levels. Ms. Holbrow said the levels should not increase because there is no source. Don Sandstrom said they have to test the thermal oxidizer to make sure it is not a lead source. Mr. Kilkenny said this shows they should look at soil samples to see if the data are still current. Mr. Hoskins asked if they assumed that conditions were not variable. Ms. Holbrow said they assumed static conditions, and the assessment does not account for particular events. It is conservative to be over-protective. Also, chemicals here are in the soil and are volatile, so they go into the air. However, they are not going to be attached to the soil particles for long due to being volatile. The assessment assumes chemical volatility in air. Mr. Kilkenny said that he believes acceptable risk to be one in one million.</p> <p>Sonia Sacombe of Geomatrix introduced the groundwater modeling. She said they first looked at aerial photographs to understand where the water goes. They next separated the site into 60 by 80 square foot properties. Then they looked</p>		

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	<p>at soil types. Ms. Sacombe showed a map of the distribution of the sandy soil zone. Groundwater flows through this zone more easily than other soil zones. Next they looked at current chemical distribution and how it will change over time. They wanted to see how remediation will make it look in 30 years. To do this, they used the highest concentration value found in each of the wells.</p> <p>Mansour Sepehr of Soma Environmental showed the animation for the 1,2-DCA and MTBE plume models. Benzene was not shown because it degrades faster, so the animation would have plumes too small to see. All details will be in the final report.</p> <p>The 1,2-DCA modeling showed the free product and mass will be gone in 5 years without pumping. With pumping of the Westside Barrier Wells, it takes care of a lot of the mass faster. If the pumping rates were doubled, the modeling showed no further off-site migration. Mr. Kilkenny said they are now looking into putting a well off-site and what effects that would have. Mr. Hoskins asked if the modeling considered bioremediation or phytoremediation. Mr. Kilkenny said it assumed no degradation due to bioremediation to keep conservative. John Rifilato said phytoremediation is mainly for the tar pit area. Lt Col Hover said phytoremediation would not take care of 1,2-DCA or MTBE.</p> <p>The MTBE modeling showed that with the Westside Barrier Wells, only a little MTBE gets off-site. Laurie Smith asked about possible mistakes in recorded data. Mr. Kilkenny said they are looking back through the data to make sure there are no mistakes. Dr. Landolph asked what percentage of 1,2-DCA mass would be left after 30 years. Mr. Sepehr said he would estimate five percent, possibly one to two percent. Dr. Duran asked about the potential off-site wells and if they would pull MTBE off-site. Mr. Kilkenny said that is one thing they are looking at, and they have to balance and optimize the systems.</p> <p>Mr. Kilkenny said they should re-visit the modeling annually. He said these were worst-case scenarios. They will come back with current data. They are hoping to have some off-site scenarios for the next meeting. The draft</p>		

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	<p>document will be distributed by December 10 to all members. Comments are to be submitted to the OCCS members. The final document will be ready by the end of the year, and then will be submitted to the RWQCB after the first of the year.</p> <p>Dr. Landolph asked if the mass estimate was the same for MTBE. Mr. Sepehr said MTBE would be less than 10 percent, and 1,2-DCA would be about one percent. Ms. Smith said she thought the plumes should be decreasing more. Mr. Kilkenny pointed out that these models are over-conservative.</p>		
3.	<p><u>KMEP Update</u> Scott Kilkenny</p> <p>Mr. Kilkenny said the Semi-Annual Groundwater Monitoring Report will be discussed at the next meeting. This serves as an interim report.</p> <p>Mr. Sandstrom discussed the KMEP remediation operations. The system has operated for 16,900 hours since startup. Approximately 10,000 gallons of total fuel were removed in the last quarter. Approximately one million gallons of water were pumped and treated, which was the similar to previous quarters. They are trying to improve the liquid recovery rates.</p> <p>Field work for the Semi-Annual Groundwater Monitoring event will start on Monday. The sentry wells have been sampled and data tables were distributed. The information will be included in the next monitoring report.</p> <p>The system enhancements are focused on improving recovery. They have re-drilled new extraction wells with new filter packs. They are still fine-tuning them. They had a mobile pilot system at the site last week which they are evaluating. They are continuing balancing the wells and are looking at different scenarios with Mr. Sepehr's models. They are also looking at in-situ bioremediation. They are 99 percent sure it is occurring for BTEX constituents. Mr. Kilkenny said they are also looking into phytoremediation. They planted 643 trees at a site in Northern Nevada. They will provide more information on this at the next meeting. Gene Garcia asked if the bioremediation was occurring for</p>		

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	BTEX only. Mr. Kilkenny said yes. There is some information on limited MTBE degradation, but they are not counting on it.		
4.	<p><u>DEO-LA Update</u> Joe Trani, DEO-LA</p> <p>Central Area Remediation. Mr. Trani distributed a graph of hydrocarbon removal. Approximately 90,000 gallons of hydrocarbons have been recovered and destroyed to date. In addition, repairs to the system have been made. Within the last three months, the thermal oxidizer was repaired. However, they found an eroded heat exchanger that needed repair. The repair should be completed next week.</p> <p>They have also cleaned out three wells that had diminished recovery rates. The wells were acid scrubbed. They are now back online, and their recovery has increased 14 percent.</p>	N/A	
5.	<p><u>Set Date and Agenda for Next Meeting</u></p> <p>The next regular RAB meeting will be held Thursday, January 21, 1999, at 6:30 p.m. in the Norwalk City Hall Lower Level Conference Room.</p>	All	Meeting Jan 21
6.	<p><u>Public Comment Period</u></p> <p>Mr. Miller made a motion to adjourn the meeting. The motion was seconded by John Rifilato. The motion passed without opposition. Ms. McIntosh adjourned the meeting at 8:15 p.m.</p>	N/A	