FINAL

Meeting Minutes

Meeting Subject: Norwalk Tank Farm Restoration Advisory Board (RAB) Quarterly Meeting	**Meeting Date**: **21 January 1999** **Meeting Time**: 6:30 p.m. **Meeting Place**: City of Norwalk Lower Level Conference Room

RAB, PROJECT TEAM, AND OTHER ATTENDEES

RAB Community Members

D. Caughey
E. Garcia
B. Hoskins
M. McIntosh (Co-Chair)
W. Miller
J. Rifilato
W. Sterner
M. Young

Other Members

J. Anderson (City of Norwalk)
R. Babel (City of Cerritos)
S. Kilkenny (KMEP)
Dr. Duran (OCCS)
Lt Col Hover (DESC-LA)
Dr. Landolph (OCCS)
J. Leserman (WRD)

Other Attendees

K. Apodaca (Resident)
M. Bartee (KMEP)
R. Booth (Resident)
T. Devoy (Norwalk)
A. Holbrow (Geomatrix)
Rep. G. Napolitano
N. Nazmi (Geomatrix)
D. Sandstrom (Geomatrix)
M. Sepehr (Soma)
J. Trani (DESC-LA)
T. Whyte (URSGWC)

DESC-LA ..Defense Energy Support Center-Los Angeles
GTI .....Groundwater Technology, Inc.; a wholly-owned subsidiary of IT Corporation
KMEP.....Kinder Morgan Energy Partners
OCCS.....Offsite Chemicals Cleanup Subcommittee
RBCA .....Risk-Based Corrective Action
RWQCB ....Regional Water Quality Control Board
URSGWC..URS Greiner Woodward Clyde
WRD.....Water Replenishment District of Southern California

Absentees

H. Marley (RWQCB)
J. Pellam
L. Smith

BACKGROUND

DESC-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.

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Item	Description of Discussion and Action Items	Responsible Party	Due Date
1.	Introduction Lt Col Bruce Hover, DESC-LA, Co-Chair, Meeting Chair Mary Jane McIntosh introduced the guests attending the meeting, including Congresswoman Grace Napolitano, Ray Booth (resident), Kim Apodaca (resident), and Nancy Nazmi from Geomatrix. Lt Col Hover called the meeting to order at 6:40 p.m. Wanda Sterner read a statement to be added to tonight's minutes (see attached). Her motion to add it to the minutes was seconded by John Rifilato. The motion passed without opposition. In response to Ms. Sterner's statement, Scott Kilkenny said he would look into the Emission Test Report on Inorganic Lead Concentration and address her concerns within the Offsite Chemicals Cleanup Subcommittee (OCCS). Gene Garcia said the previous minutes mentioned lead, but was unclear and needs clarification. Ms. McIntosh said the minutes need to be a little clearer on schedules, specifically concerning the Risk-Based Corrective Action (RBCA) schedule. She said the RBCA report should be submitted to the RAB for review prior to submittal to the Regional Water Quality Control Board (RWQCB). In response, Mr. Kilkenny proposed a special meeting to address the RBCA on Wednesday, January 27, 1999, at 3:00 p.m. at the Norwalk City Hall Lower Level Conference Room. He plans to come to the RAB for approval of the RBCA plan in February and submit it to the RWQCB in March. He noted that the RWQCB has changed the RBCA model standards. Ms. Sterner presented a motion to accept the minutes from the 29 October 1998 meeting as modified. The motion was seconded by Ms. McIntosh. The motion passed without opposition.	OCCS Members	1/27/99
2.	RBCA Update Scott Kilkenny, KMEP Mr. Kilkenny said he will contact OCCS members and get them information on tetraethyl lead. He invited Ms. Sterner to the OCCS meeting. He will incorporate all comments into the RBCA, highlight the changed portions, and then send it to the OCCS members for review. Then it can be presented	S. Kilkenny	1/27/99

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	to the RAB. Mr. Garcia asked about the comment in the minutes regarding modeling being revisited annually. In response, Mr. Kilkenny had two statements that he wanted to appear in the minutes: [1] "Modeling itself will be used as a tool to work for closure. We will re-calibrate the modeling with updated data." [2] "The RBCA is not a document to define closure. It is a document to define what is the risk out there." Mr. Kilkenny said that to optimize the remediation systems they need to look at the modeling. They will use the modeling to see what would happen if they modify the remediation system. Mr. Garcia said he did not get that sense from the minutes. He said remediation needs to be down to a level within a reasonable time. Thirty years is not reasonable. Mr. Kilkenny said KMEP is committed to continual improvement. He is here to clean up the site to the residents' satisfaction with the best available technology. Congresswoman Napolitano asked what was the cleanup timeframe and how do you determine what level is safe. Mr. Kilkenny said it would be thirty years if they continue operating at the status quo, and that is not good enough. KMEP has doubled the pumping rates since the last RAB meeting. Now they are trying to figure out what effect it will have on the site. They may just be pulling contaminants across the site. It may reduce the cleanup timeframe to 8 to 12 years. Congresswoman Napolitano asked if they have to ask permission to try another cleanup technology. Mr. Kilkenny said yes, for example, with their NPDES permit, the RWQCB sets their maximum flow rate. Mr. Kilkenny said the flow rate at the site is towards the west-northwest. The plume is like a blob, moving back and forth, but generally towards the west-northwest. Ms. Sterner said she noticed the fluctuations in the latest groundwater monitoring report. Ms. McIntosh said that there are several different remediation systems on site. She said that Lt Col Hover is also trying to optimize DESC's system. At the beginning of the RAB, both parties agreed to look at the		

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	entire Tank Farm in general. She also said Hugh Marley of the RWQCB is a part of the RAB, and if the RWQCB has any concerns they send a letter to KMEP and DESC. Ron Babel asked if it would be practical to get more wells closer to the plumes on site. Mr. Kilkenny said all wells are in the zone of contamination. Putting in more wells would not get us enough bang for the buck. Bob Hoskins presented Mr. Kilkenny a newspaper article about a new cleanup method, steam cleaning soil, taking place at a site in Visalia. Mr. Kilkenny said he has some experience reviewing that method. It is mainly for heavier contaminants. Lt Col Hover said he had experience with it at another site, but that site's RAB determined the cost was too high. Lt Col Hover said he would look into it and get back to Mr. Hoskins with comments.	Lt Col Hover	4/22/99
3.	<u>KMEP Update</u> Scott Kilkenny Handouts for the presentation were not available and will be distributed through the mail. Don Sandstrom said KMEP's remediation system has removed about 9,000 gallons of product in the last quarter through vapor extraction. The groundwater system has recovered a little over one million gallons of water and a couple 100 gallons of liquid fuel in the last quarter. He showed a graph that demonstrated a steady recovery trend. He expects an increase next time. The product trend line is getting flat and took a hit at one point. This was due to water that had accumulated in the bottom of the tank. When the water was purged, they subtracted its volume from the recovered product total. Mark Bartee said they doubled the system to 50 gallons per minutes last Tuesday. Mr. Sandstrom said they also have new equipment in the Westside Barrier System, and the five newly replaced wells have not exhibited significant product. They used a dual phase extraction test at well GMW-O-12 and others on site. All but one well got similar product recovery as the current system. Well GMW-22 got a lot of product, so they hooked it up the current system and took out one well that did not show much product. Bill Miller asked how do they combine liquid and vapor. Mr. Kilkenny said it is an equivalent used for comparison purposes.	S. Kilkenny	4/22/99

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4.	DESC-LA Update Joe Trani, DESC-LA **Central Area Remediation Update.** Mr. Trani showed a graph of the hydrocarbon and free product recovery in the central area of the Tank Farm. DESC's remediation system has recovered 92,098 gallons of total hydrocarbons to date, including 49,524 gallons of liquid-phase hydrocarbons, 42,084 gallons of vapor-phase hydrocarbons, and 490 gallons of dissolved-phase hydrocarbons. The free product trend has diminished, so they are trying to optimize the system. All groundwater recovery wells have been acid washed. They have identified five wells in the northwest area to be used for recovery and containment. They have retrofitted three wells with flowmeters, and will fit five more in February, to control groundwater recovery rates. Collection tanks have been checked and upgraded. They have also fitted four wells with pressure transducers and data loggers to allow continuos monitoring of groundwater levels. **Semiannual Monitoring Event.** The latest Semiannual Groundwater Monitoring Event took place in November 1998. GTI and Alton Geoscience monitored 151 wells. The average groundwater levels have increased by two inches since May 1998. In the northern plume, free product thickness decreased by an average of 3 inches. In the southern plume, free product thickness decreased an average of 10 inches. The decreases show that the systems are doing their jobs. No free product was detected in the 24" valve area. No benzene, 1,2-DCA, or MTBE concentrations were detected in the Exposition Aquifer. The low TPH concentration found in well EXP-1 is likely to be naturally occurring. The TPH plume does not extend as far westward in the southern area, but further northwest, east, and southeast since May 1998. 1,2-DCA concentrations have decreased in 14 well and increased in 7 wells. MTBE concentrations have decreased in 15 wells and increased in 19 wells since May 1998. The free product thickness trend graph shows that average thickness has decreased in the central area, and is flat from November 1998 to December 1998. Lt Col Hover said this	N/A	

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	graph gives a 3-D perspective of the contamination instead of the usual flat map. The original estimate of product in the central area was 400,000 gallons. They have removed 100,000 gallons, so that would be 25 percent of the original estimate. However, they are going to challenge the numbers, because the trend line should not be straight. Either the original estimate is wrong or the thickness of the plume is wrong. Mr. Garcia asked if there were any new wells north of Excelsior. Lt Col Hover said no. Lt Col Hover said that the monitoring report listed well TF-14 as having seven feet of product. GTI went back and took another look at the well. The well's piezometer (used to gauge well) was initially clogged, but after cleaning, the well itself really only had three inches of free product. He said the plume has not moved much, but thickness has decreased. It will take forever to remove the plume by pump and treat—it can not remove all the contamination. It can, however, get it down to a scientifically acceptable level. Thickness has been dropping like a stone since December 1997. Mansour Sepehr said that rainfall effects thickness. Lt Col Hover said they have gone through two seasons, and the product thickness is still only two inches. He said TF-14 was an anomaly and will get GTI to recount events and make sure every parameter was the same for monitoring events in May 1996, May 1998, and May 1999. He will give an update at the next meeting. Ms. McIntosh said they reexamine the systems continually and said KMEP and DESC have been good on providing updates on what has been successful as well as what has not been successful. Joe Trani next discussed the Western Off-site wells. Well WCW-8 near the corner of Norwalk and Excelsior has spiked at times. It may be due to El Niño or due to a nearby storm drain leak. It has baffled them. Mr. Garcia asked if a leak from the storm drain would not bring down the concentration. Mr. Trani said the storm drain could bring oil or other contaminants from the street. Ms. McIntosh mentioned another site near San Antonio and Foster streets that has considerable contamination. Mr.		

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	Rifilato said it previously had three tanks. Congresswoman Napolitano said it was discovered in 1987, but the owner let it sit because cleanup was too expensive. Jill Anderson said they are doing a Health Risk Assessment on the site. Ms. McIntosh requested that GTI be more thorough in their report summaries. She would like to see a sample history box on the maps as Geomatrix has on their maps. Ms. Sterner thanked them for getting the report out promptly.		
5.	Phytoremediation Presentation Lt Col Hover Lt Col Hover gave a presentation about phytoremediation, one of the other cleanup options they are evaluating for possible use at the Tank Farm. He said a lot of information on phytoremediation can be found on the Internet. DESC is using poplar trees as a natural pump and treat system at the DFSP San Pedro. The trees break down chemicals and release exudates to enhance biodegradation. Contaminants amenable to phytoremediation include TPH, metals, and PCBs. It has been extremely successful at munitions sites. Lt Col Hover said he is trying to locate the Citizen's Guide to Phytoremediation. They are using phytoremediation at San Pedro because of the low cost; it is an endangered species area; and the contamination is in a small area and they can manipulate the water table. The process can clean as far as the roots go down. They hope to be at state-approved MCL levels in 15 to 20 years. Challenges include the depth to groundwater; plant selection; plant spacing; soil conditions; irrigation; and cleanup duration. He thinks they can get down to the contaminated area in three to five years. Congresswoman Napolitano suggested using Eucalyptus, as the wood could generate a high resale value. She also suggested contacting TreePeople in Pasadena who may volunteer to help plant the trees. Lt Col Hover concluded by saying phytoremediation is an emerging technology, cost effective, and has wide public approval. He said he will attach more information to tonight's minutes. Ms. Anderson requested a copy of the slide presentation as well.	Lt Col Hover	4/22/99

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6.	Set Date and Agenda for Next Meeting An OCCS meeting will be held on January 27, 1999, at 3:00 p.m. at the Norwalk City Hall Lower Level Conference Room. An Interim RAB meeting to address the RBCA will be held on February 25, 1999, at 6:30 p.m. at the Norwalk Arts & Sports Complex. The next regular RAB meeting will be held **Thursday, April 22, 1999, at 6:30 p.m.** in the Norwalk City Hall Lower Level Conference Room.	OCCS members All All	1/27/99 2/25/99 4/22/99
7.	Public Comment Period Lt Col Hover announced that Mr. Kilkenny received a promotion. Mr. Kilkenny's new title is Vice President. Mr. Hoskins made a motion to adjourn the meeting. The motion was seconded by Ms. McIntosh. The motion passed without opposition. Lt. Col Hover adjourned the meeting at 8:40 p.m.	N/A	

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Special Request from Wanda Sterner to RAB members to add the following explanation (insert) to DRAFT Meeting Minutes dtd 29 October 1998 at end of TP3, 6 lines above the bottom of Page 3.

Insert: Wanda Sterner is a real stakeholder w.r.t. Norwalk Tank Farm. She owns 12347 Charlie immediately south of the Tank Farm and rents it to her grandson, his wife, and their four sons. The youngest was born May 31, 1998.

For many years tetraethyl lead, $(C_2H_5)_4Pb$, was added to gasoline. There are good reasons (See Page 2 of Second Semi-annual 1998 Report - Ground Water Sampling) to believe that the South TPH plume consists of gasoline containing tetraethyl lead.

If any of that lead comes up in vapor that is then burned in the "Stealth Thermal Oxidizer" then the lead comes out with the effluent gases as tiny solid particles so small they can be inhaled by humans. Since winds in Norwalk are predominately westerly it stands to reason that humans to the east of the oxidizer might inhale burned lead (lead oxide particles - PbO). The risk are so great that Tom Danaher had a study done for me. (The implications were so serious neither of us wanted any publicity.) The study was dated March 21, 1996. (Cover included.) I assume it is in the files but probably not in any computer. The Summary Report (included) gives the lead Mass Emission Rate, in lbs/hr in one test at 0.000016. When I multiply that by 24 hrs/day and 365 days/yr I get 0.14 POUNDS of lead/year

(in 1996) being blown toward the east of the Oxidizer

The toxicity of lead exposure is well known. For example, See Consumer Reports, July 1995, p 460;

"... measurable cognitive and behavioral impairment in young children begins at a blood level (for lead of about 10 µg/dl, now the Government's official action level. There is no other neurotoxin in the world for which we have more compelling data."

"... the threat is worse .... for fetuses exposed to lead through their mothers' bloodstream ... are more susceptible to the metal's toxic effects." [Dr. Adam Lee Spencer]

Now, imagine, please, knowing all the above, my reaction to the answer I received (See Minutes, page 3) to my question about lead levels ....

"There is no source."

RAB members deserve to know that burned (oxidized) lead is

NOT volatile. It consists of heavy particles that fall out of the gases in which they are formed, quite quickly. They fall down on whatever is under there: dirt, leaves, etc.

To have my scientifically justified question (I have a Master's in Chemistry) brushed off so casually (see Minutes) was not only a personal and community insult but an ~~indict~~ indication to me of the lack of expertise of an "expert" presented to RAB by KMEP but also of the lack of the "presenting" to the RAB.

There IS a lead source, the tetraethyl lead in the gasoline under the south Tank Farm plume. Burning volatiles does produce lead oxide in the air over the farm.

The Minutes do not specify which toxin Kilkenny believes to be at once in a million. That blood lead level is one in 10 million (w/w).

I wish to resubmit my question to both polluters: What are the lead levels to which citizens are now being exposed by all processes at the Norwalk Tank Farm?

WS.