

FINAL

MEETING MINUTES

27 August 2015

BACKGROUND

Defense Logistics Agency - Energy (DLA Energy) and Kinder Morgan Energy Partners (KMEP) are conducting environmental cleanup activities at the area in and surrounding the former Defense Fuel Support Point (DFSP) Norwalk facility, formerly known as the Tank Farm, located at 15306 Norwalk Boulevard, Norwalk, California. The Restoration Advisory Board (RAB) is an advisory committee of local citizens and project members that review and comment on documents relating to the environmental cleanup. All RAB meetings are open to the public and are scheduled semiannually on the fourth Thursday at 4:00 p.m. in the months of February and August unless otherwise voted on by the RAB community membership.

1. Introduction Mary Jane McIntosh, RAB Co-Chair, Meeting Chair

Mary Jane McIntosh, RAB Co-Chair, Meeting Chair, called the meeting to order at 4:17 p.m.

Ms. McIntosh introduced Mr. Nicholas Carros of DLA Energy, Ms. Emma Cocks of The United States General Services Administration (GSA), Ms. Angela LaMonica of GSA, Mr. Bob Kraemer, Deputy Chief Counsel at Real Estate Office for the Air Force and Ms. Michelle Taylor of the Air Force. Ms. McIntosh also welcomed guests in the audience: Mr. Hugo Enciso of the Norwalk Youth Soccer League and Mr. Woonhoe Kim, PhD. Candidate in Environmental Engineering at USC.

Ms. McIntosh asked for comments on the draft minutes from the February 26, 2015 RAB meeting. Ms. McIntosh made a motion for the minutes to be approved as written. Ms. Tracy Winkler approved the minutes and Mr. Steve Defibaugh seconded the motion. The minutes were approved without opposition.

2. DLA Energy Update Neil Irish, The Source Group, Inc.

Status of Remediation System Update

Neil Irish, SGI Project Manager for the DFSP Norwalk site began by discussing the status of the ongoing remediation systems for soil and groundwater treatment and provided information on groundwater remediation, soil vapor extraction (SVE) and light non-aqueous Phase Liquids (LNAPL) recovery.

Soil Remediation – Site Wide

Mr. Irish provided an update on the soil remediation that is being accomplished by excavation and on-site bio-remediation. All soil between zero to 10 feet with contamination above cleanup goals is scheduled to be excavated and treated. To date, over 90 percent of the targeted shallow soil has been excavated from the future park area (approximately 13 acres) and over 50 percent of the targeted shallow soil has been excavated from the remainder of the site (approximately 36 acres). Excavated soil has been placed into treatment stockpiles. Treated soil that has been confirmed clean has been used to backfill some excavations. Deeper soil (greater than 10 feet) with the highest concentrations of contamination (affecting groundwater) will also be excavated and treated.

Mr. Irish stated that to date, approximately 40,000 cubic yards (yd³) of soil have been excavated. Approximately 19,000 of contaminated soil has been excavated and placed into treatment. Of the 19,000 yd³, 3,500 yd³ treated have been approved for use as backfill, 15,500 yd³ are currently being treated and half of this soil being treated is almost ready for reuse. Approximately 1,000 yd³ of soil are added to treatment stockpiles daily.

Mr. Irish presented an excavation status map and indicated that contaminated soil from the northeast portion of the site has been removed and the excavation was backfilled with clean soil. The map includes areas previously determined clean (depicted as a blue square with an “x” through it). Trenches will be cut through these areas to show visual evidence that there are no pockets of contamination not previously noted. The areas in orange are areas where soil has already been excavated; areas in yellow are areas where soil is

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currently being excavated for treatment. Although main focus to clean future park portion first, other areas throughout the site have been excavated to provide clean, untreated native soil to backfill excavations and to provide areas to construct soil treatment cells. Each treatment cell contains approximately 800 yd³ of soil. A total of 100,000 yd³ of soil will be treated.

Mr. Irish presented and discussed photos of the site and remediation process.

Ms. Winkler inquired about timeline for completing the soil remediation.

Mr. Irish stated that the current plan is to have the excavations within the future park area certified and backfilled by the end of this year. The remaining portion of the site should be completed by July 2016.

Ms. Winkler asked if progress would be delayed due to winter rain?

Mr. Irish indicated that the rain is actually welcomed, as it will provide additional dust suppression.

Mr. Irish also addressed a question from Ms. McIntosh stating that we received inquiries about the project rather than any complaints.

Mr. Paul Cho asked if there is site history as to why there is contamination in the northeastern corner.

Mr. Irish addressed this by stating that there were some “sumps” of crude oil (as evident is some older aerial photographs) and that that material predated the Air Force’s use of the site. This oily material has been excavated and hauled from the site for proper disposal.

Ms. Winkler asked when the well that removed to accommodate the excavation in the northeast corner would be reinstalled.

Mr. Irish stated that since the backfill has been completed, the well will be scheduled to be reinstalled.

Assessment at GMW-62 Updates

Mr. Irish discussed the assessment of the floating product plume around offsite well GMW-62 located in the northwest portion of Holifield Park adjacent to the site’s eastern property fence.

Mr. Irish stated that per the work plan approved by the RWQCB, three additional wells were installed on Holifield Park to assess the extent of the floating product plume. The assessment objectives were to determine distribution of floating product and evaluate mitigation pathways as well as expand floating product recovery efforts.

Mr. Irish stated that the recovery efforts have substantially reduced the amount of floating product in GMW-62. Additionally, the three new wells installed did not contain any floating product. Soil data collected indicated that no soil contamination was present above the groundwater table; providing evidence that the source of the contamination is within the confines of the terminal and has spread-out under the park.

Mr. Irish informed the RAB that a remediation approach is being developed that will address the groundwater contamination in Holifield park and future parkland portion of the site. More information will be provided during the next RAB meeting.

The presentations which include data for GMW-62 and the three newly installed wells will be uploaded to the RAB website.

Soil Gas Survey

Mr. Irish summarized the findings of the soil gas survey completed by SGI in February of 2015 along the eastern perimeter and the northern edge of the property to obtain a current baseline of soil gas conditions. Findings included low concentrations of petroleum hydrocarbons in some of the soil gas sample locations, which were consistent with the results of previous investigations and consistent with industrial site use. Sporadic, low concentrations of tetrachloroethylene (PCE) were detected in the northern points near Excelsior and Norwalk Boulevard. PCE is a solvent typically used at a drycleaners. There is no evidence to

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indicate that PCE was ever used at DFSP Norwalk nor has it been present in any soil samples. Mr. Irish stated that the presence of a chemical does not necessarily mean that there is a problem. Regulatory developed screening levels for chemicals within soil gas were used to determine that the PCE detected was below industrial site standards.

Ms. McIntosh stated that she believes this is the first time the RAB has heard about this chemical being detected at the site.

Mr. Irish stated that he reviewed previous RAB presentations (not presented by SGI) and did see PCE data; however believes it was not overtly addressed.

Ms. McIntosh asked if the PCE could be related to 1,2-dichloroethane (1,2-DCA) previously discovered at the site?

Mr. Irish stated that his impression is that the presence of PCE and 1,2-DCA are unrelated because 1) the locations of the chemicals is different, 2) 1,2-DCA was in groundwater and the PCE was discovered in soil gas and only historically sporadically discovered in groundwater. Based on the location of the PCE detected it could be possible that the PCE could be from a potential leak in the city industrial sewer, which is common.

Ms. McIntosh asked if the treatment systems currently in place could be used to remediate the PCE contamination.

Mr. Irish stated that although a vapor extraction system could remove the PCE contamination, the locations of the wells currently onsite are not located strategically enough to allow the material to be extracted. Additionally, the current low concentrations do not indicate a significant risk driver to install additional wells for the PCE contamination. The presence of PCE will continue to be monitored.

3. KMEP Update Mark Wuttig, CH2M HILL

Remediation Operations Update

Mark Wuttig provided an update on KMEP's remediation operations, annual soil vapor monitoring, and planned activities.

Mr. Wuttig stated that overall objectives are to remove contaminated mass and contain the contamination. To accomplish these objectives KMEP maintains an SVE system, a groundwater extraction (GWE) system and a total fluids extraction (TFE) system. Mr. Wuttig mentioned the former remediation system referred to as "The West Side Barrier" was discontinued in August of 2008 based on low contaminant concentrations that no longer pose a risk.

Mr. Wuttig also discussed the treatment and discharge of the systems.

Mr. Wuttig discussed operation and maintenance activities and summarized KMEP's SVE operations. Since 1995, approximately 488,000 gallons (3.2 million pounds) have been treated. Mr. Wuttig displayed a graph depicting the cumulative fuel removed by vapor extraction to date.

Regarding KMEP's TFE/GWE system, Mr. Wuttig stated that groundwater extracted from the south-central and southeast areas is 67.4 million gallons and from the West Side Barrier is 26.9 million gallons since 1995.

Mr. Wuttig said that floating product recovery has increased as related to the decline of the water table elevation to historical lows, which has allowed some of the trapped product within the smear zone to be released and float out onto the groundwater table for recovery. Former wells with zero to minimal product now contain several feet of product that has been recovered using hand bailing or a vacuum truck. A total of 12,306 gallons has been recovered since 1995. Mr. Wuttig displayed a graph of floating product and groundwater recovered over time.

Mr. Cho asked why there was a sudden increase in product recovery during second quarter 2015.

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Mr. Dan Jablonski and Mr. Steve Defibaugh stated that it is due to optimization of pumps (realigning the pumps to the optimal positions based on the decrease in the water table level).

Mr. Wuttig summarized reasons for SVE system downtime and discussed preventative maintenance activities.

Mr. Wuttig presented a hydrograph showing the historical groundwater elevations in the upper aquifer and the underlying exposition aquifer from 1993 to present, which depicts the groundwater table at a historical low which has exposed floating product trapped in the smear zone.

Mr. Wuttig discussed remediation system upgrades.

Pilot Biosparge System

Mr. Wuttig stated that the pilot well construction was completed in August 2014. Mr. Wuttig stated that pilot testing would occur for approximately 1 year and will commence in the 3rd or 4th quarter of 2015. Monitoring for volatile organic compounds (VOCs), carbon dioxide (CO₂), oxygen (O₂), methane and electron acceptor chemistry will be conducted.

Mr. Wuttig provided an explanation of the pilot test program; discussing baseline testing, short term testing and long term testing.

Mr. Wuttig provided detailed explanation of the biosparge well layout and conceptual design.

Planned Activities

Mr. Wuttig stated that planned remediation activities include continuing SVE and TFE in south-central and southeastern areas, continuing as-needed hand bailing product from wells without TFE capabilities, completing electrical and conveyance work associated with biosparge system, beginning operation of biosparge well, installing a new oil water separator and remediation pad for GWTS.

4. First Semiannual 2015 Groundwater Monitoring Report Mark Wuttig, CH2M HILL

Mr. Wuttig summarized the First Semiannual 2015 Groundwater Monitoring Report. Well gauging and groundwater sample collection was conducted by Blaine Tech and The Source Group, Inc. A total of 158 wells were gauged of 162 wells [5 dry wells] (treatment systems were offline). Groundwater samples were collected from 108 wells using low-flow methodology.

Mr. Wuttig displayed and discussed groundwater elevation maps for the uppermost groundwater zone and the Exposition Aquifer.

Mr. Wuttig stated that floating product was measured in 31 of the 162 wells gauged and measured thicknesses range from 0.01 feet to 9.02 feet. Measurable free product observed in these areas was greater than past events, due to a continued decline in water levels across the site.

Mr. Wuttig discussed the sampling of the Exposition Aquifer wells and indicated that all analytical results were non detect, except for methyl tertiary-butyl ether (MTBE), which was detected at EXP-1 in the SFPP split sample at a concentration of 1.1 micrograms per liter (ug/L). These types of low-level detections occasionally occur in the EXP wells. SFPP and DLA Energy will continue to monitor the EXP wells and closely watch for any future potential detections.

Mr. Wuttig presented an animation showing the LNAPL extent from 1998 through 2015.

Mr. Cho asked if DLA Energy is seeing the same trends with their free product plume.

Mr. Irish stated that groundwater levels in GMW-62 have also declined corresponding to the increase in the thickness; however, we have not seen this trend in the tank farm.

Mr. Wuttig discussed the sampling of the uppermost aquifer wells stating that, in most areas, the lateral

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<p>extents of TPH, benzene, 1,2-DCA, MTBE, and tert-butyl alcohol (TBA) in groundwater remain similar to those interpreted during previous monitoring events.</p> <p>Mr. Wuttig stated that Mr. Cho has reviewed KMEP shallow soil data. KMEP has submitted a request for no further action for the top 10 feet. Mr. Cho requested that samples be collected for PCBs and PAHs. A work plan has been submitted to sample three locations (two in south-central area and one in southeast area). Mr. Cho agreed to the sampling plan and samples were collected and will be reported.</p>	
<p>5. <u>Regulatory Agency Update</u> Paul Cho, Regional Water Quality Control Board</p> <p>Paul Cho, the Regional Water Quality Control Board (RWQCB) Project Manager for the Norwalk site, stated that he is pleased with the progress at the site. Mr. Cho stating that he is currently reviewing the confirmation sampling for the treated soil submitted by SGI. Mr. Cho will continue to work with KMEP regarding the sample results for the PCBs and PAHs.</p> <p>Ms. Winkler inquired about the possibility of using recycled water at the site rather than potable water.</p> <p>Mr. Cho stated that there is an extensive permit process to use reclaimed water.</p> <p>Mr. Irish stated that SGI has pursued a number of avenues to use reclaimed water; however, there are many limitations. An application has been drafted to request permission to use the groundwater currently treated onsite for dust suppression and other onsite activities.</p> <p>Mr. Charles Emig offered to speak with Mr. Irish regarding options of using recycled water from the City of Cerritos.</p>	
<p>6. <u>United States Air Force Update</u> Michael Wilson, USAF</p> <p>Mr. Michael Wilson thanked the team for working together to complete site cleanup. Mr. Wilson stated that a timeline/schedule is being developed to document each organizations activity and impacts on the overall conveyance of the site.</p>	
<p>7. <u>Set Date and Agenda for Next Meeting</u></p> <p>The next semiannual RAB meetings will be held on Thursday, February 25, 2016, at 4:00 p.m. in the Norwalk Arts & Sports Complex. Agenda items to be included are pilot testing and remediation system updates.</p>	
<p>8. <u>Public Comment Period</u></p> <p>Mr. Hugo Enciso of the Norwalk Youth Soccer League commented that he would also like to see more reclaimed water used on site, as currently there is not enough water for the current soccer fields. Additionally he wanted to know if the site requires special preparation to use turf rather than grass. Ms. McIntosh stated that all questions regarding future use of the site should be addressed to the City of Norwalk.</p> <p>Ms. McIntosh made a motion to adjourn the meeting. Meeting adjourned at 5:59 p.m.</p>	

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ACTION ITEMS		
Item	Responsible Party	Due Date
Next RAB meeting	All	02/25/16