

FINAL

MEETING MINUTES

25 February 2016

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 4:13 p.m.

Ms. McIntosh introduced Mr. Brian Partington of Water Replenishment District of Southern California. Ms. McIntosh also welcomed guests in the audience: Mr. Hugo Enciso of the Norwalk Youth Soccer League, Ally Hernandez of the Office of the State Senator Tony Mendoza and Wayne Worthington of DLA Energy DFSP San Pedro.

Ms. McIntosh asked for comments on the draft minutes from the August 27, 2015 RAB meeting. Ms. McIntosh made a motion for the minutes to be approved as written. Mr. Steve Defibaugh approved the minutes and Mr. Michael Wilson seconded the motion. The minutes were approved without opposition.

2. United States Air Force Update Michael Wilson, USAF

Michael Wilson provided an update on the property conveyance schedule stating that the goal is to have the 15 acres (located adjacent to Holifield Park) conveyed to the City of Norwalk as a park parcel by Summer 2016 (once No Further Action is obtained). Mr. Wilson stated that GSA would facilitate the conveyance of the remaining 36 acres once the soil remediation closure and park conveyance is complete.

Mr. Wilson commended all involved for remaining on schedule.

Ms. McIntosh announced that The City of Norwalk is tentatively planning a conveyance ceremony for the park portion in August 2016. The August RAB meeting schedule will be changed to coincide with the ceremony to ensure RAB members can be in attendance. RAB meeting members will be notified once a date is finalized.

Mr. Winkler asked if a new fence would be constructed to include the 15 acres to the park parcel. Mr. Wilson stated that the City is planning to construct a fence, which will initially be a temporary construction fence.

3. KMEP Update Mark Wuttig, CH2M

Remediation Operations Update

Mark Wuttig provided an update on KMEP's remediation operations, annual soil vapor monitoring, biosparge pilot testing 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. These systems are located in the South-Central and Southeast areas. Additionally, pilot testing of the biosparge system began in January 2016. 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.

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Mr. Wuttig discussed operation and maintenance activities and summarized KMEP's SVE operations. Since 1995, approximately 510,700 gallons (3.37 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 69.3 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 13,892 gallons has been recovered since 1995. Mr. Wuttig displayed a graph of floating product and groundwater recovered over time.

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 stated that because of the apparent increase in product thickness beneath the south-central area, SFPP conducted pressure testing of active pipelines and conducted forensics analysis of product samples (GMW-23, GMW-29, and GMW-30) to confirm that a new fuel release had not occurred. All pipelines passed the pressure tests and were put back online. Forensics analysis determined that fuel oxygenates (e.g. MTBE) were not present, leaded gasoline was present (age of release 1960 to 1986) and gasoline "weathered" or aged and is not indicative of a new release.

Ms. McIntosh thanked KMEP for being proactive and conducting the pressure testing and forensics analysis.

Mr. Wuttig summarized remediation systems operation time.

Annual Soil Vapor Monitoring

Mr. Wuttig discussed the annual soil vapor monitoring that was conducted in September 2015 and presented a figure depicting soil vapor monitoring probe locations, remediation well locations and the location of the biosparge well. Samples were analyzed using a mobile lab and a fixed lab. Samples analyzed in the mobile lab detected contaminants of potential concern (COPCs) in deeper probes (22-foot depth) at concentrations greater than human health screening levels. All COPCs shallower than 22 feet were generally low, near the analytical reporting limit, and below human health screening levels. Samples analyzed in the fixed lab had detections of COPCs in SVM-1, SVM-5 and SVM-7 below analytical reporting limits and all detections were below the human health screening levels; however, in SVM-14, several COPCs detected above human health screening levels at concentrations consistent with the mobile lab.

Mr. Wuttig presented a slide with fixed gas profiles demonstrating that hydrocarbons are biodegrading under aerobic conditions at depths shallower than 15 feet and under anaerobic conditions at deeper depths near the smear zone.

Pilot Biosparge System

Mr. Wuttig stated that the pilot testing of the biosparge system commenced in January 2016. 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, ramp-up period, short term tracer testing and long term testing.

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

Mr. Wuttig provided preliminary results of the testing. Mr. Wuttig stated that bubbling was observed in

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several of the groundwater wells, fluctuation in water levels and decline in product thickness was observed in some wells and SF6 data are pending. Mobile lab and field PID readings indicate modest increase in vapor phase VOCs (as expected). SVE will continue to operate during biosparge operation. Soil vapor results will be presented to the Regional Board and the RAB as part of monthly reporting requirements. First reporting anticipated to be provided to the RAB at the end of March 2016.

Mr. Wuttig discussed safety measures and offsite monitoring and response activities. Mr. Wuttig stated that the field team would respond to any odor complaints from residents immediately and collect indoor air samples if odors are reported.

Mr. Emig asked if residents have an emergency contact number to call with complaints.

Ms. McIntosh responded by stating that residents have called her in the past; however, they typically call the City of Norwalk with any concerns. It was also noted that all residents within a 1-mile radius were provided a hotline number. Ms. McIntosh recommended that a banner with the RAB website be posted on the outside of the property.

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, installing a new oil water separator and remediation pad for GWTS, installing new SVE system, and continuing operation of biosparge well and monthly groundwater and soil vapor monitoring.

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4. 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.

Mr. Irish stated that efforts to obtain approval to reuse treated groundwater for dust control for the soil remediation activities were unsuccessful as the reuse of treated water was not practical/cost effective based on the requirements.

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, 100 percent of the targeted shallow soil has been excavated from the future park area (approximately 13 acres) and over 99.5 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. The remaining ~0.5 percent of soil to be excavated is currently located under the KMEP office trailer. Deeper soil (greater than 10 feet) with the highest concentrations of contamination (affecting groundwater) were also excavated and treated. The deeper soil was removed from Tank Basin 80008 and 55004 and the Former Truck Rack Area.

Mr. Irish presented an aerial photo of the site depicting the excavations and stockpile treatment rows.

Mr. Irish explained backfilling procedures stating that the excavations are backfilled with treated, confirmed clean soil from 25 to 10 feet below grade. From 10 feet to surface, excavations are backfilled with native, virgin, untreated clean soil for excavations located in the 15 acres scheduled to be conveyed for parkland.

Ms. Winkler asked if SGI would be replacing the monitoring wells that were removed prior to excavation activities. Mr. Irish stated that the groundwater extraction and treatment system (including monitoring wells and treatment wells) would be reconfigured in the 15 acres of parkland now that clean up has been completed.

In response to a question from Mr. Wilson, Mr. Irish stated that SGI/DLE-Energy have been actively working with the Regional Board to determine to what extent an active remediation will be needed for the product in the groundwater.

Mr. Irish stated that to date, approximately 120,000 cubic yards (yd³) of soil have been excavated. Approximately 65,000 yd³ of contaminated soil has been excavated and placed into treatment. Of the 65,000 yd³, 31,500 yd³ treated have been approved for use as backfill, 33,500 yd³ are currently being treated. Cross trenches have been performed throughout the site to confirm all contamination has been removed. Mr. Irish reiterated that the focus is currently on completing the work on the future parkland.

Mr. Irish presented an excavation status map. The map includes areas previously determined clean (depicted as a blue square), areas when remediation has been completed and excavations have been backfilled with clean soil (depicted as a black square) and contaminated soil removed from zero to 10 feet pending closure (depicted as a red square). Trenches have been cut through these areas to show visual evidence that there are no pockets of contamination not previously noted.

Mr. Irish discussed work planned within the next 30 days which includes completing backfill of park area excavations, performing soil gas survey on park area, removing internal berms from park area, removing stockpiled clean soil from park area, transporting recycle concrete from park area, and preparing and

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submitting Case Review Form to the Regional Board for formal closure of park area soils.

Mr. Irish discussed additional steps for soil remediation which include, continuing treatment of soil currently in cells, backfilling “oily sands” area to allow final removal of soil, treating final “oily sands” and placing into treatment cells, and backfilling excavations with treated soil as available (truck rack area), performing soil gas survey upon backfill and final excavation and preparing and submitting Case Review Form to the Regional Board for formal closure of remaining soils.

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

Groundwater

Mr. Irish discussed the groundwater assessment planning stating that the next steps are to install replacement groundwater recovery wells and reconfigure the extraction system, install and commission air sparge wells, collect final data to demonstrate hydrocarbon impact at GMW-62 and Holifield Park, and install free product wells in areas based on Ultraviolet Optical Screening Tool (UVOST) data. Free product wells will be installed in areas with recoverable free product and in soils that are amenable to product recovery.

Mr. Irish presented additional information on UVOST, which included the CPT/UVOST location map, UVOST profile for TF-18, and CPT Lithology Log.

5. Second Semiannual 2015 Groundwater Monitoring Report Daniel Swensson, SGI

Mr. Swensson summarized the Second Semiannual 2015 Groundwater Monitoring Report for sampling conducted between October 19 and November 6, 2015. Well gauging and groundwater sample collection was conducted by The Source Group, Inc., and Blaine Tech. A total of 139 wells were gauged (treatment systems were offline). Groundwater samples were collected from 95 wells using low-flow methodology (including duplicate and split samples, 109 groundwater samples were analyzed).

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

Mr. Swensson stated that floating product was measured in 33 of the 139 wells gauged and measured thicknesses range from 0.01 feet to 6.83 feet.

Mr. Swensson presented the sampling results for the uppermost aquifer wells and the exposition aquifer wells. It was noted that wells with free product are typically not sampled; however, CH2M inadvertently sampled product wells during this sampling event.

The next semi-annual sampling event will begin in April 2016.

6. Regulatory Agency Update Paul Cho, Regional Water Quality Control Board

Mr. Paul Cho, the Regional Water Quality Control Board (RWQCB) Project Manager for the Norwalk site, stated that the site’s shallow soil treatment activity is in progress as planned.

Mr. Winkler asked Mr. Cho if he concerned about the contamination in EXP-1. Mr. Cho responded stating that it will continue to be monitored but no immediate action is required at this time.

7. United States Air Force Update Michael Wilson, USAF

Mr. Michael Wilson thanked the team for working together to complete site cleanup.

8. Set Date and Agenda for Next Meeting

The next semiannual RAB meetings will be scheduled once the City of Norwalk finalizes a date for the park portion conveyance ceremony. All RAB members will be notified and the website will be updated to include meeting date.

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9. <u>Public Comment Period</u>	
Ms. McIntosh made a motion to adjourn the meeting. Meeting adjourned at 6:05 p.m.	

ACTION ITEMS		
Item	Responsible Party	Due Date
Schedule next RAB meeting once City of Norwalk Conveyance Ceremony date is finalized	Adriana Figueroa/Molly Black	4/1/16