



Transmittal

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Subject: Remediation System Operational Status, April 2012
Project Name: SFPP Norwalk Pump Station, Norwalk, California

| Item | Description |
|------|--|
| 1 | Table 1 – Remediation Well Construction and Status |

Remarks

On behalf of SFPP, L.P., (SFPP) an operating partnership of Kinder Morgan Energy Partners, L.P. (KMEP), CH2M HILL is transmitting this monthly remediation system operational status for April 2012. As requested in the RWQCB’s July 20, 2010, e-mail, this status report includes the following:

1. Groundwater and soil vapor extracted from individual wells for treatment
2. Treated groundwater discharged under the National Pollutant Discharge Elimination System (NPDES) permit
3. System downtime, wells affected, and reason for downtime

A summary of remediation wells in the south-central, southeastern, and West Side Barrier areas is presented in Table 1. Table 1 includes well identifications, well construction details, well use, and operational status as of April 27, 2012. Operational status and maintenance of the system are briefly discussed below.

Tasks performed for operation and maintenance of the remediation systems during the reporting period included:

- Weekly maintenance and monitoring of the south-central and southeastern soil vapor extraction (SVE) and total fluids extraction/groundwater extraction (TFE/GWE) wells, and soil vapor and groundwater treatment systems (collectively referred to as remediation systems)
- Inspection of groundwater extraction pumps
- Inspection and repairs of soil vapor extraction wells
- Collection and analysis of treatment system influent and midpoint groundwater samples
- Collection and analysis of treatment system effluent soil vapor and water samples

- Upgrading the TFE/GWE system control panel
- Repairing the groundwater conveyance line for wells GMW-SF-9 and GMW-SF-10 in the southeastern area.

During the reporting period, remediation system inspections were performed on a weekly basis and volumes of extracted groundwater, hours of operation and other system parameters were recorded on an approximately weekly basis during system operation. Effluent flow readings for the TFE/GWE system and SVE system temperature and flow readings are recorded daily using the digital chart recorder. These data are downloaded by the KMEP technicians at least weekly.

Soil Vapor Extraction and Treatment System

The SVE system was on for approximately 396 hours (53 percent uptime) from March 31 to April 30, 2012; the uptime was 72 percent not including planned shutdowns for routine groundwater monitoring. The SVE wells in operation at the end of April include MW-SF-3, MW-SF-12, GWR-3, VEW-1, MW-O-1, MW-O-2, GMW-O-12, GMW-O-20, and GMW-O-23 in the south-central area; and wells GMW-O-15 and GMW-O-18 in the southeastern area.

On April 9, 2012, the SVE system was turned off to facilitate gauging monitoring and extraction wells (under static conditions) for the second quarter 2012 semiannual groundwater monitoring event. The SVE system was restarted on April 18, 2012. On April 23, 2012, the system was off on arrival. The 300 kilovolt-ampere (KVA) transformer feeder was tripped on April 21, 2012, at approximately 12:31 am. The feeder was reset and power was restored. The SVE system was restarted the same day. On April 30, 2012, the system was off on arrival due to a blown fuse. The fuse was replaced and the system was restarted the same day. The SVE is currently operational with no problems reported.

Total Fluids and Groundwater Extraction and Treatment System

The TFE/GWE system was operational for approximately 446 hours (60 percent uptime) from March 31 to April 30, 2012; the uptime was 81 percent not including planned shutdowns for routine groundwater monitoring. The TFE/GWE wells in operation at the end of April include MW-SF-3, MW-SF-11, MW-SF-14, MW-SF-16, and GMW-O-21 in the south-central area; and wells GMW-O-15, GMW-O-18, and GMW-36 in the southeastern area.

On April 9, 2012, the TFE/GWE system was turned off to facilitate gauging and sampling activities for the second quarter 2012 semiannual groundwater monitoring event. The TFE/GWE system was restarted on April 18, 2012. On April 23, 2012, the system was off on arrival due to the 300 KVA transformer feeder tripping as mentioned above. The feeder was reset and power was restored to the systems. The two bioreactors, which remove fuel oxygenates such as methyl tertiary butyl ether (MTBE) and tertiary butyl alcohol (TBA), also shut down during the power outage. Therefore, the system was not turned on until the bioreactors were evaluated and confirmed to be operational. On April 24, 2012, it was determined that the biomass in the bioreactors survived the power outage and therefore, the system was restarted.

It is anticipated that an acid addition system will be installed in the effluent tanks of the bioreactors by early June 2012. The acid addition at these two points should reduce the solidification of the polishing carbon vessels, thereby reducing the frequency of system shut-downs.

Total groundwater extracted, treated, and discharged under the NPDES permit in April 2012 was approximately 346,355 gallons.

Please contact Vladimir Carino at 714.435.6017 if you have any questions.

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**TABLE 1
REMEDATION WELL CONSTRUCTION AND STATUS**

SFPP, L.P.
Defense Fuel Support Point Norwalk
Norwalk, California

| Remediation Area | Remediation Well ID | Installation Date | Top of Well Casing Elevation (ft msl) | Well Screen Interval (ft bgs) | Remediation Well Function | Well Operation Status on April 27, 2012 ¹ | |
|-------------------|---------------------|-------------------|--|----------------------------------|---------------------------|--|-----------|
| | | | | | | SVE | TFE/GWE |
| South-Central | MW-SF-1 | 6/18/1990 | 78.93 | 25 - 40 | SVE | OFF | -- |
| | MW-SF-2 | 6/18/1990 | 78.53 | 25 - 40 | SVE; TFE | OFF | OFF |
| | MW-SF-3 | 6/18/1990 | 78.12 | 25 - 40 | SVE; TFE | ON | ON |
| | MW-SF-4 | 6/19/1990 | 79.38 | 25 - 40 | SVE | OFF | -- |
| | MW-SF-5 | 9/19/1990 | 79.74 | 23 - 38 | SVE | OFF | -- |
| | MW-SF-6 | 9/19/1990 | 76.80 | 25 - 40 | SVE; TFE | OFF | OFF |
| | MW-SF-9 | 6/15/1995 | 74.10 | NA | SVE | OFF | -- |
| | MW-SF-10 | 9/23/2003 | 76.53 | 10 - 30 | SVE | OFF | -- |
| | MW-SF-11 | 6/19/2007 | 78.56 | 20 - 40 | SVE; TFE | OFF | ON |
| | MW-SF-12 | 6/18/2007 | 78.07 | 20 - 40 | SVE; TFE | ON | ON |
| | MW-SF-13 | 6/19/2007 | 73.40 | 20 - 40 | SVE; TFE | OFF | OFF |
| | MW-SF-14 | 6/21/2007 | 78.16 | 20 - 40 | SVE; TFE | OFF | ON |
| | MW-SF-15 | 6/21/2007 | 78.27 | 20 - 40 | SVE; TFE | OFF | OFF |
| | MW-SF-16 | 6/20/2007 | 78.21 | 20 - 40 | SVE; TFE | OFF | ON |
| | GMW-9 | 7/8/1991 | 74.44 | 20 - 50 | SVE; TFE | OFF | OFF |
| | GMW-10 | 7/8/1991 | 74.67 | 25 - 50 | SVE | OFF | -- |
| | GMW-22 | 8/2/1991 | 74.17 | 25 - 60 | SVE; TFE | OFF | OFF |
| | GMW-24 | 8/5/1991 | 74.04 | 25 - 60 | SVE; TFE | OFF | OFF |
| | GMW-25 | 1/10/1992 | 74.29 | 20 - 50 | SVE; GWE | OFF | OFF |
| | GWR-3 | 1/10/1992 | 74.93 | 20 - 50 | SVE; GWE | ON | OFF |
| | VEW-1 | NA | NA | NA | SVE | ON | -- |
| | VEW-2 | NA | NA | NA | SVE | OFF | -- |
| | MW-O-1 | 1/22/1991 | 75.48 | 25 - 40 | SVE; TFE | ON | OFF |
| | MW-O-2 | 1/23/1991 | 71.90 | 25 - 40 | SVE; TFE | ON | OFF |
| | GMW-O-11 | 5/20/1992 | 74.17 | 20 - 50 | SVE; TFE | OFF | OFF |
| | GMW-O-12 | 5/21/1992 | 73.49 | 20 - 50 | SVE | ON | -- |
| | GMW-O-20 | 6/15/1995 | 73.32 | NA | SVE; TFE | ON | OFF |
| | GMW-O-21 | 10/1/1997 | 71.43 | 26 - 46 | TFE | -- | ON |
| | GMW-O-23 | 6/25/2007 | 73.63 | 20 - 40 | SVE; TFE | ON | OFF |
| | MW-18 (MID) | 6/10/1991 | 75.67 | 50 - 60 | SVE | OFF | -- |
| HW-1 | 9/6/1992 | NA | NA | SVE | OFF | -- | |
| HW-2 | 9/6/1992 | NA | NA | SVE | OFF | -- | |
| Southeastern | GMW-O-15 | 4/19/1994 | 74.23 | 20 - 50 | SVE; TFE | ON | ON |
| | GMW-O-18 | 7/25/1994 | 74.36 | 21 - 40 | SVE; TFE | ON | ON |
| | GMW-36 | 4/11/1994 | 74.53 | 20 - 50 | TFE | -- | ON |
| | GMW-SF-9 | 4/1/2003 | 73.00 | 37 - 46 | GWE | -- | OFF |
| | GMW-SF-10 | 4/2/2003 | 75.77 | 37 - 46 | GWE | -- | OFF |
| West Side Barrier | BW-2 | 5/20/1996 | 73.57 | 27 - 47 | GWE | NA | OFF |
| | BW-3 | 5/17/1996 | 74.16 | 31 - 50 | GWE | NA | OFF |
| | BW-4 | 5/20/1996 | 74.61 | 28 - 47 | GWE | NA | OFF |
| | BW-5 | 5/23/1996 | 73.59 | 27 - 46 | GWE | NA | OFF |
| | BW-6 | 5/22/1996 | 73.48 | 28 - 47 | GWE | NA | OFF |
| | BW-7 | 5/22/1996 | 74.65 | 27 - 46 | GWE | NA | OFF |
| | BW-8 | 5/21/1996 | 75.08 | 27 - 46 | GWE | NA | OFF |
| | BW-9 | 5/21/1996 | 76.19 | 27 - 46 | GWE | NA | OFF |

Notes

1. Based on information provided by SFPP, L.P.

Abbreviations

-- = not applicable
 NA = information not available
 ft msl = feet above mean sea level based on the National Geodetic Vertical Datum of 1929.
 ft bgs = feet below ground surface
 GWE = groundwater extraction
 SVE = soil vapor extraction
 TFE = total fluids extraction