Transmittal

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Date: November 15, 2011

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Subject: Remediation System Operational Status, October 2011

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., an operating partnership of Kinder Morgan Energy Partners, L.P. (KMEP), CH2M HILL is transmitting this monthly remediation system operational status for October 2011. 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 October 28, 2011. 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
- Collection and analysis of treatment system influent groundwater samples
- Collection and analysis of treatment system effluent soil vapor and water samples
- Replacement of carbon from the lead polishing liquid phase granular activated carbon (LGAC) vessel.

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.

Soil Vapor Extraction and Treatment System

The SVE system was on for only approximately 3 hours during the month of October. The SVE system was off during the first two weeks of the month in order to gauge monitoring and extraction wells under static conditions for the October 2011 semiannual groundwater sampling event. The SVE system was off for the remainder of October because of mechanical issues with the SVE flow sensor. Malfunctioning of the SVE flow sensor was due to damage to the flow sensor stainless steel tubing and a plugged flame arrestor. The system flow into the SVE system is measured by the differential pressure across the flame arrestor of the system. The stainless steel tubing for the flow sensor was replaced by KMEP's remediation contractor, Northstar. Northstar also inspected and cleaned the flame arrestor the week of November 7, 2011. It is anticipated that the SVE system will be restarted the week of November 14, 2011.

Total Fluids and Groundwater Extraction and Treatment System

The TFE/GWE system was operational for approximately 450 hours (59 percent uptime) from September 30, 2011, to November 1, 2011. The TFE/GWE wells in operation at the end of October include MW-SF-3, MW-SF-15, MW-SF-16, and GMW-O-21 in the south-central area; and GMW-O-15, GMW-O-18, and GMW-36 in the southeastern area.

On October 4, 2011, the system was off on arrival due to a high level in the transfer tank. Due to the semiannual groundwater sampling, the system was not restarted until October 13, 2011.

Throughout the month of October, the system would turn off due to a high water level in the equalization tank. The high level in the equalization tank was due to decreased flow through the TBA treatment system, as a result of plugging of lead LGAC polishing vessel. Between October 21 and October 24, 2011, the carbon in the lead polishing LGAC vessel was changed out. The carbon in this vessel had solidified; therefore, several days were required to clean out the vessel. It is believed that the plugging of the lead vessel can be controlled with weekly backwashing and/or pH adjustments upstream of the polishing vessels. Further troubleshooting of this issue will continue during the month of November. The TFE/GWE system was restarted on October 25, 2011.

Total groundwater extracted, treated, and discharged under the NPDES permit in October 2011 was approximately 428,000 gallons. The southeastern area influent quantities were not calculated for October 2011 since the southeastern area influent meter was inoperable. The system was shut down the week of November 7, 2011, to allow Northstar to connect the electrical wiring for the new influent and effluent flow meters to an independent power source. It is anticipated that the TFE/GWE treatment system will be turned on the week of November 14, 2011, after the flow meters are operational.

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

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TABLE 1
REMEDIATION 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 October 28, 2011[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	OFF	**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	OFF
	MW-SF-12	6/18/2007	78.07	20 - 40	SVE; TFE	OFF	OFF
	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	OFF
	MW-SF-15	6/21/2007	78.27	20 - 40	SVE; TFE	OFF	**ON**
	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	OFF	OFF
	VEW-1	NA	NA	NA	SVE	OFF	---
	VEW-2	NA	NA	NA	SVE	OFF	---
	MW-O-1	1/22/1991	75.48	25 - 40	SVE; TFE	OFF	OFF
	MW-O-2	1/23/1991	71.90	25 - 40	SVE; TFE	OFF	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	OFF	---
	GMW-O-20	6/15/1995	73.32	NA	SVE; TFE	OFF	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	OFF	OFF
	MW-18 (MID)	6/10/1991	75.67	50 - 60	SVE	OFF	--
	HW-2	NA	NA	NA	SVE	OFF	--
Southeastern	GMW-O-15	4/19/1994	74.23	20 - 50	SVE; TFE	OFF	**ON**
	GMW-O-18	7/25/1994	74.36	21 - 40	SVE; TFE	OFF	**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	---	OFF
	BW-3	5/17/1996	74.16	31 - 50	GWE	---	OFF
	BW-4	5/20/1996	74.61	28 - 47	GWE	---	OFF
	BW-5	5/23/1996	73.59	27 - 46	GWE	---	OFF
	BW-6	5/22/1996	73.48	28 - 47	GWE	---	OFF
	BW-7	5/22/1996	74.65	27 - 46	GWE	---	OFF
	BW-8	5/21/1996	75.08	27 - 46	GWE	---	OFF
	BW-9	5/21/1996	76.19	27 - 46	GWE	---	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