

#### Transmittal

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Date: To:	July 15, 2011 Mr. Paul Cho California Re Control Board Region (RWC 320 West 4 <sup>th</sup> Los Angeles,	gional Water Quality d – Los Angeles QCB) Street, Suite 200 CA 90013	From:	Vladimir Ca CH2M HILL 6 Hutton Ce Santa Ana,	irino - entre Drive, Suite 700 CA 92707			
Subject: Project Name:		Remediation System Operational Status, June 2011 Defense Fuel Support Point (DFSP) Norwalk						

### 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 June 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 NPDES; and
- 3. System down time, 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 June 17, 2011. Operational status and maintenance of the system is 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 SVE and 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 soil vapor and groundwater samples;
- Collection and analysis of treatment system effluent soil vapor and water samples;
- Replacement of carbon from the granular activated carbon (GAC) vessels;
- Extraction well re-development; and
- Connection and testing of a fluidized bed bioreactor (FBBR).

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 operational for approximately 556 hours (75% uptime) from June 1, 2011 to July 1, 2011. The SVE wells in operation during June include MW-SF-3, MW-SF-12, MW-SF-16, GMW-10, GWR-3, MW-O-1, MW-O-2, GMW-O-11, GMW-O-12, GMW-O-20, and GMW-O-23 in the south-central area; and GMW-O-15 and GMW-O-18 in the southeastern area. The system was turned off on June 7, 2011, in order to drain water due to condensation from the SVE manifold. The system was restarted the same day. On June 21, 2011, the SVE system was off upon arrival. The reason for the system shutdown is unknown but it was restarted the same day with no operational issues reported. The SVE system was turned off on June 27, 2011 to repair the actuator and motor for the dilution and process valves of the system and to install a digital chart recorder. The repairs were completed and the system was back online on July 12, 2011.

## **Total Fluids and Groundwater Extraction and Treatment System**

The TFE/GWE system was operational for approximately 640 hours (86% uptime) from June 1, 2011 to July 1, 2011. The TFE/GWE wells in operation during June include MW-SF-11 in the south-central area; and GMW-O-15, GMW-O-18, and GMW-36 in the southeastern area. The TFE/GWE system was turned off from June 3 through June 8, 2011, for re-development of the southeastern wells and well MW-SF-11. Carbon from the lead GAC vessel was changed out on June 7, 2011. The southeastern wells and well MW-SF-11 were put back online on June 8, 2011. The system was off on arrival on June 10, 2011, due to clogged bag filters. The filters were changed out, the lead GAC vessel was backwashed and the system was restarted. On June 14, 2011, the southeastern wells were turned off to clean and remove fine particulates in the conveyance line. The system was restarted the same day.

During the last reporting period, KMEP's remediation contractor (Cardno ERI), completed installation of the above-ground electrical and plumbing for the first temporary FBBR unit, which is used in conjunction with the existing groundwater treatment system to treat tertiary-butyl alcohol (TBA). The FBBR unit is fully operational but performance testing will be continued through the next reporting period. The above-ground electrical and plumbing for the second FBBR unit also has been completed and is anticipated to be online by late July 2011.

Groundwater extracted, treated, and discharged under the NPDES permit in June 2011 is as follows:

- Groundwater extracted from the south-central area wells: 486,124 gallons
- Groundwater extracted from the southeastern area wells: 234,382 gallons
- Treated groundwater discharged under NPDES: 720,506 gallons

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	Well Screen Interval	Remediation Well Function	Well Operation Status on June 17, 2011 <sup>1</sup>	
			(ft msl)	(ft bgs)		SVE	TFE/GWE
	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	OFF
	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	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	OFF
	MW-SF-16	6/20/2007	78.21	20 - 40	SVE: TFE	ON	OFF
	GMW-9	7/8/1991	74.44	20 - 50	SVE; TFE	OFF	OFF
South-Central	GMW-10	7/8/1991	74.67	25 - 50	SVE	ON	
	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	OFF	
	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	ON	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		OFF
	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	OFF
	HW-2	NA	NA	NA	SVE	OFF	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	TFF		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	GWF		OFF
	BW-5	5/23/1996	73 59	27 - 46	GWF		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	GWF		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