



**Transmittal**

**Sent Via:**  **Messenger**  **U.S. Mail**  **Overnight Mail**

---

**Date:** February 15, 2011 **From:** Vladimir Carino  
**To:** Mr. Paul Cho CH2M HILL  
California Regional Water Quality 6 Hutton Centre Drive, Suite 700  
Control Board – Los Angeles Santa Ana, CA 92707  
Region (RWQCB)  
320 West 4<sup>th</sup> Street, Suite 200  
Los Angeles, CA 90013

**Subject:** Remediation System Operational Status, January 2011

**Project Name:** 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 January 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
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 at the end of January 28, 2010. 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, TFE/GWE, 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; and
- Troubleshooting of the SVE system and southeastern TFE wells.

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 565 hours (76% uptime) during January 2011. The SVE system was shut down between January 7 and January 14, 2011 to allow static water levels and groundwater samples to be collected for the January 2011 sentry groundwater monitoring event. The following SVE wells in operation during January include MW-SF-1, MW-SF-4, MW-SF-15, MW-SF-16, GMW-10, MW-O-1, MW-O-2, GMW-O-11, GMW-O-12, GMW-O-20, GMW-O-23, and HW-2 from the south-central area; and GMW-O-15 and GMW-O-18 from the southeastern area. There were no shut downs of the SVE system due to high temperature alarms during the month of January. It is suspected that the frequent high temperature alarms during previous months were the result of faulty wiring of the thermocouples. KMEP technicians, with assistance from a remediation system contractor, have initiated the re-wiring of the thermocouples and will continue to upgrade the wiring to the SVE system.

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

The TFE/GWE system was operational for approximately 742 hours (100% uptime) during January 2011. The following TFE/GWE wells in operation during January include MW-SF-3, MW-SF-13, MW-SF-14, MW-SF-15, MW-SF-16, GMW-22, and GMW-O-21 in the south-central area.

During routine inspections of the SFPP's remediation system in December 2010, it was discovered that extracted groundwater was not being conveyed from the southeastern area to the remediation treatment system in the south-central area. As part of the trouble-shooting of this issue, the total fluids extraction pumps for wells GMW-O-15, GMW-O-18, and GMW-36 were removed for service and after several weeks, confirmed to be operational. In addition, the solenoid valve for the southeastern area air compressor was replaced (the air compressor is used to supply air to the pumps in the southeastern area). However, once the pumps were placed back into service, extracted groundwater was still not flowing to the treatment system. On January 28, 2011, a general remediation contractor investigated the 4-inch diameter pipeline that conveys the soil vapor and extracted groundwater from the southeastern area to the treatment system. It was determined that muddy water and silt were present in the conveyance line and it was subsequently cleared by the remediation contractor. Although the conveyance line was cleared and the pumps were determined to be fully operational, extracted groundwater from the southeastern area was still not reaching the treatment system in the south-central area. Having ruled out mechanical issues with the pumps and obstructions in the conveyance line, it was suspected that there may be a break in the southeastern area conveyance line. Further evidence of a break is the increased amount of water that was collected by the SVE knockout vessel (the water line is encased within the vapor extraction line).

All three pumps in the southeastern area were shut down on February 1, 2011. On February 4, 2011, a utility locating contractor identified the general location of the underground conveyance line between wells GMW-36 and GMW-O-15 (the area thought to have the break). Excavation work was conducted in this area on February 10, 2011, but no break was discovered. Further ground-truthing of the above-ground conveyance line in this area revealed a break in the 1-inch diameter water line near well GMW-36. The 1-inch diameter water line to this well is encased by a 4-inch diameter vapor line; therefore, it is believed that extracted groundwater did not leak from the outer vapor line during previous well operation. The lines were repaired on February 10, 2011, immediately after the break was discovered, and normal groundwater extraction from this area has resumed.

Groundwater extracted, treated, and discharged under the NPDES permit in January 2011 was as follows:

- Groundwater extracted from the south-central area wells: 1,101,957 gallons
- Groundwater extracted from the southeastern area wells: 23 gallons
- Treated groundwater discharged under NPDES: 1,101,980 gallons

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

### **Distribution List**

Mr. Steve Defibaugh, KMEP  
LTC Tam Gaffney, DLA Energy  
Mr. Kola Olowu, DLA Energy  
Mr. Redwan Hassan, Parsons  
Ms. Mary Lucas, Parsons  
Ms. Mary Jane McIntosh, RAB  
Dr. Eugene Garcia, RAB  
Mr. Bob Hoskins, RAB  
Ms. Tracy Winkler, RAB  
Ms. Nancy Matsumoto, WRD

Ms. Minxia Dong, Norwalk Regional Library  
Ms. Adriana Figueroa, City of Norwalk  
Mr. Norman Dupont, Richards/Watson/Gershon  
Mr. Charles Emig, City of Cerritos  
Mr. Gary Lynch, Park Water Company  
Office of Congresswoman Grace F. Napolitano  
Mr. Tim Whyte, URS  
Mr. Mark Wuttig, CH2M HILL  
Mr. Dan Jablonski, CH2M HILL

**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<br>(ft msl) | Well Screen Interval<br>(ft bgs) | Remediation Well Function | Well Operation Status on January 28, 2011 <sup>1</sup> |
|-------------------|---------------------|-------------------|--|----------------------------------|---------------------------|--|
| South-Central     | MW-SF-1             | 6/18/1990         | 78.93                                    | 25 - 40                          | SVE                       | <b>ON</b>  |
|                   | 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; <b>ON</b>   |
|                   | MW-SF-4             | 6/19/1990         | 79.38                                    | 25 - 40                          | SVE                       | <b>ON</b>  |
|                   | 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                                    | --                               | 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; <b>ON</b>   |
|                   | MW-SF-14            | 6/21/2007         | 78.16                                    | 20 - 40                          | SVE; TFE                  | OFF; <b>ON</b>   |
|                   | MW-SF-15            | 6/21/2007         | 78.27                                    | 20 - 40                          | SVE; TFE                  | <b>ON; ON</b>  |
|                   | MW-SF-16            | 6/20/2007         | 78.21                                    | 20 - 40                          | SVE; TFE                  | <b>ON; ON</b>  |
|                   | GMW-9               | 7/8/1991          | 74.44                                    | 20 - 50                          | SVE; TFE                  | OFF; OFF   |
|                   | GMW-10              | 7/8/1991          | 74.67                                    | 25 - 50                          | SVE                       | <b>ON</b>  |
|                   | GMW-22              | 8/2/1991          | 74.17                                    | 25 - 60                          | SVE; TFE                  | OFF; <b>ON</b>   |
|                   | 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               | --                | --                                       | --                               | SVE                       | OFF  |
|                   | VEW-2               | --                | --                                       | --                               | SVE                       | OFF  |
|                   | MW-O-1              | 1/22/1991         | 75.48                                    | 25 - 40                          | SVE; TFE                  | <b>ON; OFF</b>   |
|                   | MW-O-2              | 1/23/1991         | 71.90                                    | 25 - 40                          | SVE; TFE                  | <b>ON; OFF</b>   |
|                   | GMW-O-11            | 5/20/1992         | 74.17                                    | 20 - 50                          | SVE; TFE                  | <b>ON; OFF</b>   |
|                   | GMW-O-12            | 5/21/1992         | 73.49                                    | 20 - 50                          | SVE                       | <b>ON</b>  |
|                   | GMW-O-20            | 6/15/1995         | 73.32                                    | --                               | SVE; TFE                  | <b>ON; OFF</b>   |
|                   | GMW-O-21            | 10/1/1997         | 71.43                                    | 26 - 46                          | TFE                       | <b>ON</b>  |
|                   | GMW-O-23            | 6/25/2007         | 73.63                                    | 20 - 40                          | SVE; TFE                  | <b>ON; OFF</b>   |
|                   | MW-18 (MID)         | 6/10/1991         | 75.67                                    | 50 - 60                          | SVE                       | OFF  |
| HW-2              | --                  | --                | --                                       | SVE                              | <b>ON</b>                 |  |
| Southeastern      | GMW-O-15            | 4/19/1994         | 74.23                                    | 20 - 50                          | SVE; TFE                  | <b>ON; OFF</b>   |
|                   | GMW-O-18            | 7/25/1994         | 74.36                                    | 21 - 40                          | SVE; TFE                  | <b>ON; OFF</b>   |
|                   | GMW-36              | 4/11/1994         | 74.53                                    | 20 - 50                          | TFE                       | OFF  |
|                   | 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. The well operations listed correspond to the well functions indicated in the previous column. Based on information provided by SFPP, L.P.

Abbreviations

-- = 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