



California Regional Water Quality Control Board

Los Angeles Region



Linda S. Adams
Secretary for
Environmental Protection

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Arnold Schwarzenegger
Governor

November 2, 2009

Ms. Katherine Rubin
Manager of Wastewater Quality and Compliance
Los Angeles Department of Water and Power
111 North Hope Street
Los Angeles, CA 90012-2607

GENERAL WASTE DISCHARGE REQUIREMENTS FOR GROUNDWATER CLEANUP AT PETROLEUM HYDROCARBON FUEL, VOLATILE ORGANIC COMPOUND AND/OR HEXAVALENT CHROMIUM IMPACTED SITES—LOS ANGELES DEPARTMENT OF WATER AND POWER, TUJUNGA WELLS 6 AND 7, TUJUNGA SPREADING GROUND, 8801 ARLETA AVENUE, LOS ANGELES (ORDER NO. R4-2007-0019-112; CI NO. 9552)

Dear Ms. Rubin:

We have completed our review of your application for coverage under the General Waste Discharge Requirements to return treated groundwater from Tujunga Wells 6 and 7 at the Tujunga Spreading Ground.

The Los Angeles Department of Water and Power owns and operates Tujunga Wells No. 6 and 7 at the Tujunga Spreading Ground which feed potable water into their distribution system. Historical analytical data of groundwater samples from these two wells from 2001 to 2008 indicated that the groundwater is slightly impacted by volatile organic compounds: TCE up to 46.4 µg/L and PCE up to 27.9 µg/L (see attachment 1).

As part of a demonstration project to treat Tujunga Wells No. 6 and 7 and release back to their distribution system, the California Department of Public Health has asked the Discharger for one month of treating before their approval to discharge the groundwater from Wells No. 6 and 7 back to the potable water system after treatment. According to Remediation Action Plan and Project Description submitted by the Discharger, the treatment train consists of 5 pairs of liquid phase GAC in series for each well (a total of 20 vessels). The treated effluent levels are expected to be 1.5 µg/L for both PCE and TCE, and the treated effluent will be sent to a tank located adjacent to the wells and then discharged to the nearby Tujunga Spreading Grounds (Figure 1).

The California Department of Public Health concurred with the Remediation Action Plan and Project Description in an e-mail dated October 30, 2009.

Regional Board staff has determined that the proposed return of treated groundwater meets the conditions specified in Order No. R4-2007-0019, "Revised General Waste Discharge Requirements for Groundwater Remediation At Petroleum Hydrocarbon Fuel, Volatile Organic Compound and/or Hexavalent Chromium Impacted Sites (General

California Environmental Protection Agency

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WDRs),” adopted by the Los Angeles Regional Water quality Control Board on March 1, 2007.

Enclosed are your Waste Discharge Requirements, consisting of General WDRs Board Order No. R4-2007-0019, Monitoring and Reporting Program No. CI-9552 and Standard Provisions. This Waste Discharge Requirements shall expire one year after the effective date.

The Monitoring and Reporting Program requires you to implement the monitoring program on the effective date of this enrollment under Regional Board Order No. R4-2007-0019. All monitoring reports shall be sent to the Regional Board, ATTN: Information Technology Unit.

When submitting monitoring or technical reports to the Regional Board per these requirements, please include a reference to Compliance File No. CI-9552, which will assure that the reports are directed to the appropriate file and staff. Do not combine other reports with your monitoring reports. Submit each type of report as a separate document.

We are sending a copy of Order No. R4-2007-0019 only to the applicant. A copy of the Order will be furnished to anyone who requests it, or on line at:
http://www.waterboards.ca.gov/losangeles/board_decisions/adopted_orders/general_orders/r4-2007-0019/r4-2007-0019.pdf

If you have any questions, please contact Dr. Rebecca Chou at (213) 620-6156 for WDRs administration matters, or Mr. Gregg Kwey at (213) 576-6702 for technical matters.

Sincerely,


Tracy J. Egoscue
Executive Officer

Enclosures: 1. Board Order No. R4-2007-0019
 2. Standard Provisions for Reporting and Monitoring
 3. Monitoring and Reporting Program No. CI-9552

cc: Mr. Jeff O'Keefe, California Department of Public Health

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. CI—9552

FOR

TUJUNGA WELLS 6 AND 7
TUJUNGA SPREADING GROUND
8801 ARLETA AVENUE, LOS ANGELES
LOS ANGELES DEPARTMENT OF WATER AND POWER
(RETURN OF TREATED GROUNDWATER)
(ORDER NO. R4-2007-0019, SERIES NO. 112)

I. REPORTING REQUIREMENTS

- A. Los Angeles Department of Water and Power (hereinafter Discharger) shall implement this monitoring program on the effective date of Regional Board Order No. R4-2007-0019-112. The first monitoring report under this program, for November 2009, shall be received at the Regional Board by December 28, 2009. Subsequent monthly monitoring reports shall be received at the Regional Board by the 28th date of the following month.

If there is no discharge during any reporting period, the report shall so state. Monitoring reports must be addressed to the Regional Board, Attention: Information Technology Unit.

- B. By March 1st of each year, the Discharger shall submit an annual summary report to the Regional Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous calendar year. In addition, the Discharger shall explain the compliance record and the corrective actions taken, or planned, which may be needed to bring the discharge into full compliance with the waste discharge requirements (WDRs).
- C. Laboratory analyses—all chemical, bacteriological, and toxicity analyses shall be conducted at a laboratory certified for such analyses by the California Department of Health Services Environmental Laboratory Accreditation Program (ELAP). A copy of the laboratory certification shall be provided each time a new and/or renewal certification is obtained from ELAP.
- D. The method limits (MLs) employed for effluent analyses shall be lower than the permit limits established for a given parameter, unless the Discharger can demonstrate that a particular ML is not attainable and obtains approval for a higher ML from the Regional Board Executive Officer (Executive Officer). The Discharger

shall submit a list of the analytical methods employed for each test and the associated laboratory quality assurance/quality control (QA/QC) procedures upon request by the Regional Board.

- E. Groundwater samples must be analyzed within allowable holding time limits as specified in 40 CFR Part 136. All QA/QC samples must be run on the same dates when samples were actually analyzed. The Discharger shall make available for inspection and/or submit the QA/QC documentation upon request by Regional Board staff.
- F. Each monitoring report must affirm in writing that "All analyses were conducted at a laboratory certified for such analyses by the California Department of Health Services, and in accordance with current United States Environmental Protection Agency (USEPA) guideline procedures or as specified in this Monitoring Program." Proper chain of custody procedures must be followed and a copy of the completed chain of custody form shall be submitted with the report.
- G. Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with WDRs. This section shall be located at the front of the report and shall clearly list all non-compliance with WDRs, as well as all excursions of effluent limitations.
- H. The Discharger shall maintain all sampling and analytical results: date, exact place, and time of sampling; dates analyses were performed; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.
- I. If the Discharger performs analyses on any groundwater samples more frequently than required by this Order using approved analytical methods, the results of those analyses shall be included in the report.
- J. In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with the requirements and, where applicable, shall include results of receiving water observations.
- K. The Discharger should not implement any changes to the Monitoring and Reporting Program prior to receiving Executive Officer's written approval.

II. RETURNED GROUNDWATER MONITORING REQUIREMENTS

The monthly reports shall contain the following information regarding the return of treated groundwater:

1. Location map showing discharge locations used for the return of treated groundwater. The treated groundwater is currently proposed to be discharged at the Tujunga Spreading Ground located at 8801 Arleta Avenue, Los Angeles (see Figure 1).
2. Written and tabular summary defining the quantity of treated groundwater discharged per day to the aquifer and a summary describing the days on which the system was in operation.

III. GROUNDWATER TREATMENT MONITORING PROGRAM

The Discharger shall conduct monitoring program on the groundwater before returning it to aquifer. Samples shall be collected from the well heads and effluent sampling valves of the treatment systems. The Discharger should be in compliance with the Discharge Limitations prescribed in Order No. R4-2007-0019 for the following constituents:

| CONSTITUENT | UNITS | TYPE OF SAMPLE | MINIMUM FREQUENCY OF ANALYSIS |
|---|--------------------------------|----------------|-------------------------------|
| PCE, TCE, 1,1-DCE | µg/L ¹ | Grab | Daily |
| Carbon Tetrachloride | µg/L ² | Grab | Daily |
| Nitrate and Nitrite (as N), Nitrate (as NO ₃) | µg/L | Grab | Weekly |
| Total Chromium and chromium six | µg/L | Grab | Weekly |
| Perchlorate | µg/L | Grab | Weekly |
| Total Dissolved Solids, Boron, Chlorate, Chloride, Bromide, Sulfate, Manganese, Potassium | mg/L | Grab | Weekly |
| PH | pH units | Grab | Weekly |
| Temperature | ⁰ F/ ⁰ C | Grab | Weekly |
| Priority Pollutants ³ | µg/L | Grab | Monthly ⁴ |

¹. Detection limit should be 0.5 µg/L
². Detection limit should be 0.15 µg/L
³. See Attachment 1
⁴. Once prior to the discharge and monthly thereafter

All groundwater monitoring reports must include, at a minimum, the following:

- a. Well identification, date and time of sampling;
- b. Sampler identification, and laboratory identification;
- c. *Semi-Annually observation of groundwater levels, recorded to 0.01 feet mean sea level and groundwater flow direction.*

IV. MONITORING FREQUENCIES

Monitoring frequencies may be adjusted to a less frequent basis or parameters dropped by the Executive Officer if the Discharger makes a request and the Executive Officer determines that the request is adequately supported by statistical trends of monitoring data submitted.

V. CERTIFICATION STATEMENT

Each report shall contain the following declaration:

"I certify under penalty of law that this document, including all attachments and supplemental information, was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.

Executed on the ____ day of _____ at _____.

(Signature)

(Title)"

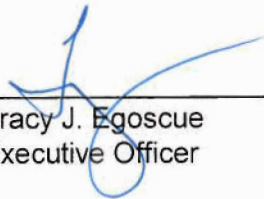
VI. PUBLIC DOCUMENTS

These records and reports are public documents and shall be made available for inspection during normal business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region.

VII. EXPIRATION DATE

The Order No. R4-2007-0019-112 and Monitoring and Reporting Program No. CI-9552 expires on October 30, 2010.

Ordered by:



Tracy J. Egoscue
Executive Officer

Date: November 2, 2009



Figure 1. Tujunga Spreading Grounds and Well Fields

ATTACHMENT I – PRIORITY POLLUTANTS

| CTR Number | Parameter | CAS Number | Suggested Analytical Methods |
|-------------------|----------------------------|-------------------|-------------------------------------|
| 1 | Antimony | 7440360 | EPA 6020/200.8 |
| 2 | Arsenic | 7440382 | EPA 1632 |
| 3 | Beryllium | 7440417 | EPA 6020/200.8 |
| 4 | Cadmium | 7440439 | EPA 1638/200.8 |
| 5a | Chromium (III) | 16065831 | EPA 6020/200.8 |
| 5a | Chromium (VI) | 18540299 | EPA 7199/1636 |
| 6 | Copper | 7440508 | EPA 6020/200.8 |
| 7 | Lead | 7439921 | EPA 1638 |
| 8 | Mercury | 7439976 | EPA 1669/1631 |
| 9 | Nickel | 7440020 | EPA 6020/200.8 |
| 10 | Selenium | 7782492 | EPA 6020/200.8 |
| 11 | Silver | 7440224 | EPA 6020/200.8 |
| 12 | Thallium | 7440280 | EPA 6020/200.8 |
| 13 | Zinc | 7440666 | EPA 6020/200.8 |
| 14 | Cyanide | 57125 | EPA 9012A |
| 15 | Asbestos | 1332214 | EPA/600/R-93/116(PCM) |
| 16 | 2,3,7,8-TCDD | 1746016 | EPA 8290 (HRGC) MS |
| 17 | Acrolein | 107028 | EPA 8260B |
| 18 | Acrylonitrile | 107131 | EPA 8260B |
| 19 | Benzene | 71432 | EPA 8260B |
| 20 | Bromoform | 75252 | EPA 8260B |
| 21 | Carbon Tetrachloride | 56235 | EPA 8260B |
| 22 | Chlorobenzene | 108907 | EPA 8260B |
| 23 | Chlorodibromomethane | 124481 | EPA 8260B |
| 24 | Chloroethane | 75003 | EPA 8260B |
| 25 | 2-Chloroethylvinyl Ether | 110758 | EPA 8260B |
| 26 | Chloroform | 67663 | EPA 8260B |
| 27 | Dichlorobromomethane | 75274 | EPA 8260B |
| 28 | 1,1-Dichloroethane | 75343 | EPA 8260B |
| 29 | 1,2-Dichloroethane | 107062 | EPA 8260B |
| 30 | 1,1-Dichloroethylene | 75354 | EPA 8260B |
| 31 | 1,2-Dichloropropane | 78875 | EPA 8260B |
| 32 | 1,3-Dichloropropylene | 542756 | EPA 8260B |
| 33 | Ethylbenzene | 100414 | EPA 8260B |
| 34 | Methyl Bromide | 74839 | EPA 8260B |
| 35 | Methyl Chloride | 74873 | EPA 8260B |
| 36 | Methylene Chloride | 75092 | EPA 8260B |
| 37 | 1,1,2,2-Tetrachloroethane | 79345 | EPA 8260B |
| 38 | Tetrachloroethylene | 127184 | EPA 8260B |
| 39 | Toluene | 108883 | EPA 8260B |
| 40 | 1,2-Trans-Dichloroethylene | 156605 | EPA 8260B |
| 41 | 1,1,1-Trichloroethane | 71556 | EPA 8260B |
| 42 | 1,1,2-Trichloroethane | 79005 | EPA 8260B |

| CTR Number | Parameter | CAS Number | Suggested Analytical Methods |
|------------|-----------------------------|------------|------------------------------|
| 43 | Trichloroethylene | 79016 | EPA 8260B |
| 44 | Vinyl Chloride | 75014 | EPA 8260B |
| 45 | 2-Chlorophenol | 95578 | EPA 8270C |
| 46 | 2,4-Dichlorophenol | 120832 | EPA 8270C |
| 47 | 2,4-Dimethylphenol | 105679 | EPA 8270C |
| 48 | 2-Methyl-4,6-Dinitrophenol | 534521 | EPA 8270C |
| 49 | 2,4-Dinitrophenol | 51285 | EPA 8270C |
| 50 | 2-Nitrophenol | 88755 | EPA 8270C |
| 51 | 4-Nitrophenol | 100027 | EPA 8270C |
| 52 | 3-Methyl-4-Chlorophenol | 59507 | EPA 8270C |
| 53 | Pentachlorophenol | 87865 | EPA 8270C |
| 54 | Phenol | 108952 | EPA 8270C |
| 55 | 2,4,6-Trichlorophenol | 88062 | EPA 8270C |
| 56 | Acenaphthene | 83329 | EPA 8270C |
| 57 | Acenaphthylene | 208968 | EPA 8270C |
| 58 | Anthracene | 120127 | EPA 8270C |
| 59 | Benzidine | 92875 | EPA 8270C |
| 60 | Benzo(a)Anthracene | 56553 | EPA 8270C |
| 61 | Benzo(a)Pyrene | 50328 | EPA 8270C |
| 62 | Benzo(b)Fluoranthene | 205992 | EPA 8270C |
| 63 | Benzo(ghi)Perylene | 191242 | EPA 8270C |
| 64 | Benzo(k)Fluoranthene | 207089 | EPA 8270C |
| 65 | Bis(2-Chloroethoxy)Methane | 111911 | EPA 8270C |
| 66 | Bis(2-Chloroethyl)Ether | 111444 | EPA 8270C |
| 67 | Bis(2-Chloroisopropyl)Ether | 108601 | EPA 8270C |
| 68 | Bis(2-Ethylhexyl)Phthalate | 117817 | EPA 8270C |
| 69 | 4-Bromophenyl Phenyl Ether | 101553 | EPA 8270C |
| 70 | Butylbenzyl Phthalate | 85687 | EPA 8270C |
| 71 | 2-Chloronaphthalene | 91587 | EPA 8270C |
| 72 | 4-Chlorophenyl Phenyl Ether | 7005723 | EPA 8270C |
| 73 | Chrysene | 218019 | EPA 8270C |
| 74 | Dibenzo(a,h)Anthracene | 53703 | EPA 8270C |
| 75 | 1,2-Dichlorobenzene | 95501 | EPA 8260B |
| 76 | 1,3-Dichlorobenzene | 541731 | EPA 8260B |
| 77 | 1,4-Dichlorobenzene | 106467 | EPA 8260B |
| 78 | 3,3'-Dichlorobenzidine | 91941 | EPA 8270C |
| 79 | Diethyl Phthalate | 84662 | EPA 8270C |
| 80 | Dimethyl Phthalate | 131113 | EPA 8270C |
| 81 | Di-n-Butyl Phthalate | 84742 | EPA 8270C |
| 82 | 2,4-Dinitrotoluene | 121142 | EPA 8270C |
| 83 | 2,6-Dinitrotoluene | 606202 | EPA 8270C |
| 84 | Di-n-Octyl Phthalate | 117840 | EPA 8270C |
| 85 | 1,2-Diphenylhydrazine | 122667 | EPA 8270C |
| 86 | Fluoranthene | 206440 | EPA 8270C |
| 87 | Fluorene | 86737 | EPA 8270C |
| 88 | Hexachlorobenzene | 118741 | EPA 8260B |
| 89 | Hexachlorobutadiene | 87863 | EPA 8260B |
| 90 | Hexachlorocyclopentadiene | 77474 | EPA 8270C |

| CTR Number | Parameter | CAS Number | Suggested Analytical Methods |
|------------|---------------------------|------------|------------------------------|
| 91 | Hexachloroethane | 67721 | EPA 8260B |
| 92 | Indeno(1,2,3-cd)Pyrene | 193395 | EPA 8270C |
| 93 | Isophorone | 78591 | EPA 8270C |
| 94 | Naphthalene | 91203 | EPA 8260B |
| 95 | Nitrobenzene | 98953 | EPA 8270C |
| 96 | N-Nitrosodimethylamine | 62759 | EPA 8270C |
| 97 | N-Nitrosodi-n-Propylamine | 621647 | EPA 8270C |
| 98 | N-Nitrosodiphenylamine | 86306 | EPA 8270C |
| 99 | Phenanthrene | 85018 | EPA 8270C |
| 100 | Pyrene | 129000 | EPA 8270C |
| 101 | 1,2,4-Trichlorobenzene | 120821 | EPA 8260B |
| 102 | Aldrin | 309002 | EPA 8081A |
| 103 | alpha-BHC | 319846 | EPA 8081A |
| 104 | beta-BHC | 319857 | EPA 8081A |
| 105 | gamma-BHC | 58899 | EPA 8081A |
| 106 | delta-BHC | 319868 | EPA 8081A |
| 107 | Chlordane | 57749 | EPA 8081A |
| 108 | 4,4'-DDT | 50293 | EPA 8081A |
| 109 | 4,4'-DDE | 72559 | EPA 8081A |
| 110 | 4,4'-DDD | 72548 | EPA 8081A |
| 111 | Dieldrin | 60571 | EPA 8081A |
| 112 | alpha-Endosulfan | 959988 | EPA 8081A |
| 113 | beta-Endosulfan | 33213659 | EPA 8081A |
| 114 | Endosulfan Sulfate | 1031078 | EPA 8081A |
| 115 | Endrin | 72208 | EPA 8081A |
| 116 | Endrin Aldehyde | 7421934 | EPA 8081A |
| 117 | Heptachlor | 76448 | EPA 8081A |
| 118 | Heptachlor Epoxide | 1024573 | EPA 8081A |
| 119 | PCB-1016 | 12674112 | EPA 8082 |
| 120 | PCB-1221 | 11104282 | EPA 8082 |
| 121 | PCB-1232 | 11141165 | EPA 8082 |
| 122 | PCB-1242 | 53469219 | EPA 8082 |
| 123 | PCB-1248 | 12672296 | EPA 8082 |
| 124 | PCB-1254 | 11097691 | EPA 8082 |
| 125 | PCB-1260 | 11096825 | EPA 8082 |
| 126 | Toxaphene | 8001352 | EPA 8081A |