



# California Regional Water Quality Control Board

## Los Angeles Region



Linda S. Adams  
Cal/EPA Secretary

320 W. 4th Street, Suite 200, Los Angeles, California 90013  
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: <http://www.waterboards.ca.gov/losangeles>

Arnold Schwarzenegger  
Governor

February 19, 2008

Mr. Joe Calleja, Environmental Programs, C & M Division  
Los Angeles County Fire Department  
1320 N. Eastern Avenue, FCCF Building Room #118  
Los Angeles, CA 90063-3294

**GENERAL WASTE DISCHARGE REQUIREMENTS FOR GROUNDWATER CLEANUP AT  
PETROLEUM HYDROCARBON FUEL, VOLATILE ORGANIC COMPOUND AND/OR  
HEXAVALENT CHROMIUM IMPACTED SITES (ORDER NO. R4-2007-0019)  
LOS ANGELES COUNTY FIRE STATION #127 (A-1 SITE)  
2049 223<sup>RD</sup> STREET, CARSON (FILE NO. R-12498)**

Dear Mr. Calleja:

We have completed our review of your application for coverage under General Waste Discharge Requirements to inject Fenton's Reagent materials into the groundwater to supplement active remediation of the groundwater contamination plume beneath the subject site (Site). The Site is currently an active Los Angeles County Fire Station within an area of mixed residential and commercial properties.

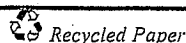
The Site is located within the Coastal Plain Groundwater Basin. According to boring logs and cross section maps, the subsurface lithology of the Site consists of silty clay and clayey silt to a depth of approximately 22 feet below ground surface (bgs), followed by a sandy layer between 22 and 40 feet bgs.

A total of four groundwater monitoring wells (MW-1 through MW-4) have been installed related to the Site. Groundwater monitoring has been conducted since December 1996. Historically, up to 18,500 µg/L of TPHg, 7,440 µg/L of benzene and 8,250 µg/L of MTBE (all in MW-1) were detected in the groundwater. According to a report dated October 17, 2008, up to 687 µg/L of TPHg, 49.4 µg/L of MTBE and 549 µg/L of TBA (all in MW-1) were detected in the groundwater in July 2008. Depth to groundwater was measured at approximately 21 feet bgs and the flow direction was toward the north.

In a Workplan dated March 31, 2008, your consultant, Applied Environmental Technologies, Inc. (AET), proposed to install four injection wells (IW-1 through IW-4) to inject Fenton's Reagent into the groundwater for a period of eight weeks to enhance active groundwater remediation at the Site. On June 3, 2008, Regional Board staff approved the Workplan. On September 23, 2008, AET submitted the application for WDR to this Regional Board.

Based on our review, Regional Board staff has determined that the proposed discharge meets the conditions specified in Order No. R4-2007-0019, "Revised General Waste Discharge Requirements for Groundwater Remediation at Petroleum Hydrocarbon Fuel, Volatile Organic

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Mr. Joe Calleja  
Los Angeles County Fire Department

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February 19, 2009

*Compound and/or Hexavalent Chromium Impacted Sites*" adopted by the Regional Board on March 1, 2007.

Enclosed are your Waste Discharge Requirements, consisting of Regional Board Order No. R4-2007-0019, Monitoring and Reporting Program No. CI-9484, and Standard Provisions.

The WDRs issued shall not be rescinded until Regional Board staff determines the WDRs are no-longer needed for the site cleanup.

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, please reference Compliance File No. CI-9484 to assure that the reports are directed to the appropriate staff. Do not combine other reports with your monitoring reports complying with Order No. R4-2007-0019. Submit each type of report as a separate document.

To avoid paying future annual fees, please submit written request for termination of your enrollment under the general permit in a separate letter, when your project has been completed and the permit is no longer needed. Be aware that the annual fee covers the fiscal year billing period beginning July 1 and ending June 30, the following year. You will pay the full annual fee if your request for termination is made after the beginning of the new fiscal year beginning July 1.

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](http://www.waterboards.ca.gov/losangeles/board%20decisions/adopted%20orders/general%20orders/r4-2007-0019/r4-2007-0019.pdf)

If you have any questions on Order No. R4-2007-0019, please contact Dr. Rebecca Chou at (213) 620-6156. Questions regarding the underground storage tank issues should be forwarded to Mr. Magdy Baiady at (213) 576-6699.

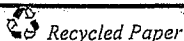
Sincerely,

  
\_\_\_\_\_  
Tracy J. Egošcuc  
Executive Officer

Enclosures:

1. Board Order No. R4-2007-0019
2. Monitoring and Reporting Program No. CI-9484
3. Standard Provisions

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Mr. Joe Calleja  
Los Angeles County Fire Department

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February 19, 2009

cc: Yvonne Shanks, State Water Resources Control Board, Underground Storage Tank  
Cleanup Fund  
Captain Frank Comfort, Los Angeles City Fire Department  
Wallace Jensky, AET Inc.

2049 East 223 st WDR cover ltr (2-5-09)

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Recycled Paper

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STATE OF CALIFORNIA  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION  
MONITORING AND REPORTING PROGRAM NO. CI-9484  
FOR  
LOS ANGELES COUNTY FIRE STATION #127

ENROLLMENT UNDER REGIONAL BOARD

ORDER NO. R4-2007-0019

SERIES NO. 087

I. REPORTING REQUIREMENTS

- A. Los Angeles County Fire Department (hereinafter Discharger) shall implement this monitoring program on the effective date of this enrollment under Regional Board Order No. R4-2007-0019.

Monitoring reports shall be received by the due dates in the following schedule:

<u>Reporting Period</u>	<u>Report Due</u>
January – March	April 15
April – June	July 15
July – September	October 15
October – December	January 15

The first monitoring report under this monitoring program is due by April 15, 2009.

- B. If there is no discharge or injection during any reporting period, the report shall so state. Monitoring reports must be addressed to the Regional Board, Attention: Information Technology Unit.
- C. By January 30 of each year, beginning January 30, 2008, 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 (WDR).
- D. 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 the WDR. This section shall be located at the front of the report and shall clearly list all non-compliance with discharge requirements, as well as all excursions of effluent limitations.

E. In addition to the aforementioned requirements, the Discharger shall comply with requirements contained in Section G of Order No. R4-2007-0019 "Monitoring and Reporting Requirements".

II. DISCHARGE MONITORING REQUIREMENTS

The quarterly reports shall contain the following information regarding the injection activities. If there is no injection during any reporting period, the report shall so state:

1. Location map showing injection points.
2. Written summary defining:
  - Depth of injection points;
  - Quantity of Fenton's Reagent injected at each injection point; and
  - Total amount of Fenton's Reagent injected at the site.
3. Monthly visual inspection at each injection well shall be conducted to evaluate the well casing integrity for a period of three months after each injection. The quarterly report shall include a summary of the visual inspection.
4. To avoid groundwater monitoring network reduction, data bias, and well screen clogging or alteration, no groundwater monitoring wells shall be used as injection points during the proposed Fenton's Reagent injection. Separate injection points/wells must be installed at the Site for the proposed Fenton's Reagent injection.

III. GROUNDWATER MONITORING PROGRAM

A groundwater-monitoring program shall be designed to detect and evaluate impacts associated with the injection activities. The monitoring well network must include MW-3 as a background well; MW-1 as source well; and MW-2 and MW-4 as downgradient wells. These sampling stations shall not be changed and any proposed change of monitoring locations shall be identified and approved by the Regional Board Executive Officer (Executive Officer) prior to their use. The Discharger shall conduct baseline sampling from the downgradient wells (MW-2 and MW-4) one or two weeks prior to the proposed Fenton's Reagent injection and regular sampling with the required frequencies from all the monitoring wells in the monitoring network for the following constituents:

<u>CONSTITUENT</u>	<u>UNITS</u>	<u>TYPE OF SAMPLE</u>	<u>MINIMUM FREQUENCY OF ANALYSIS</u>
pH	PH units	Grab	Quarterly <sup>1</sup>
Temperature	°F	grab	Quarterly <sup>1</sup>
Oxidation-reduction potential	Milivolts	grab	Quarterly <sup>1</sup>
Specific conductivity	µmhos/cm	grab	Quarterly <sup>1</sup>

Dissolved Ferrous iron	µg/L	grab	Quarterly <sup>1</sup>
Dissolved Oxygen	µg/L	grab	Quarterly <sup>1</sup>
MTBE, Tert-Butyl Alcohol (TBA), Di-isopropyl Ether (DIPE), Ethyl-t-Butyl Ether (ETBE), Tert-Amyl-Methyl Ether (TAME)	µg/L	grab	Quarterly <sup>1</sup>
Ethanol, Formaldehyde, Acetone	µg/L	grab	Quarterly <sup>1</sup>
Total Petroleum Hydrocarbons as gasoline (TPHg) and as diesel (TPHd)	µg/L	grab	Quarterly <sup>1</sup>
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)	µg/L	grab	Quarterly <sup>1</sup>
Total organic carbon	µg/L	grab	Quarterly <sup>1</sup>
Total dissolved solids, Arsenic, Boron, Chloride, Bromide, Sulfate, Lead, Nickel, Cadmium, Manganese	mg/L	grab	Quarterly <sup>1</sup>
Total Chromium and Chromium six <sup>2</sup>	Mg/L	grab	Quarterly <sup>1</sup>

<sup>1</sup> One week before injection and quarterly thereafter.

<sup>2</sup> The Discharger is required to monitor for total chromium and chromium six in the baseline, second and fourth quarterly sampling. If detected at any of these sampling events, the total chromium and chromium six must be monitored quarterly 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. Quarterly observation of groundwater levels, recorded to 0.01 feet mean sea level and groundwater flow direction.

III. MONITORING FREQUENCIES

Specifications in this monitoring program are subject to periodic revisions. Monitoring requirements may be modified or revised by the Executive Officer based on review of monitoring data submitted pursuant to this Order. Monitoring frequencies may be adjusted to a less frequent basis or parameters and locations dropped by the Executive Officer if the Discharger makes a request and the request is backed by statistical trends of monitoring data submitted.

V. CERTIFICATION STATEMENT

Each report shall contain the following completed 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)

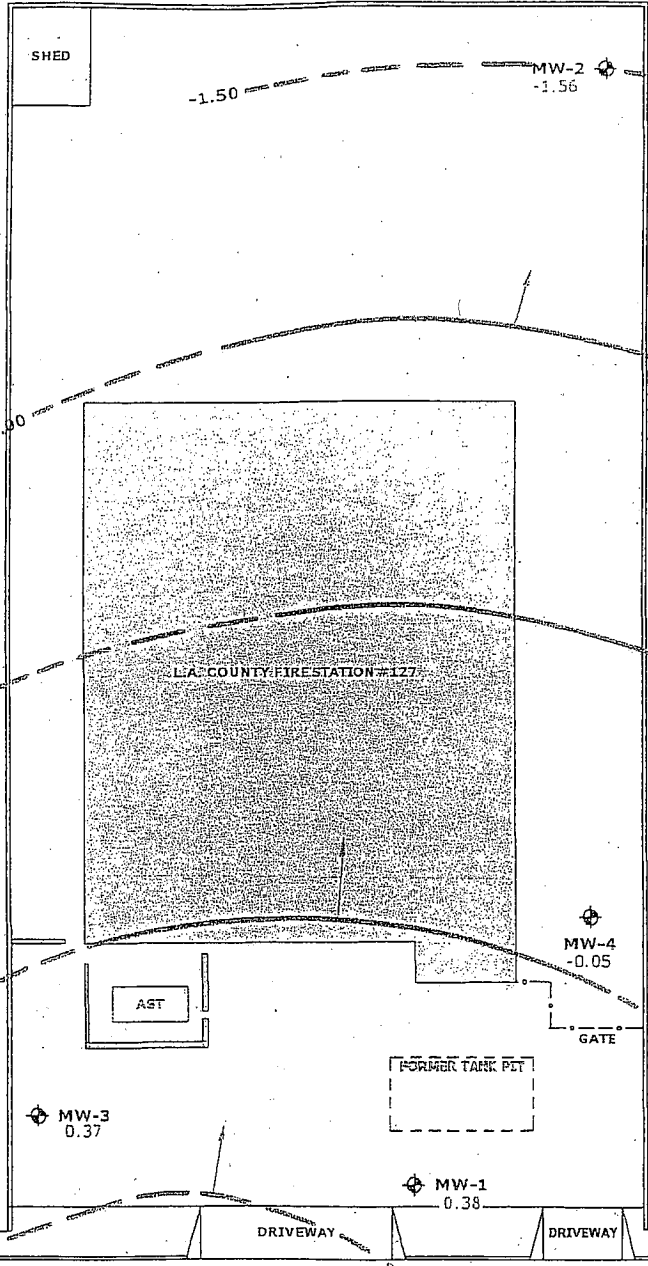
\_\_\_\_\_  
(Title)"

All records and reports submitted in compliance with this Order are public documents and will be made available for inspection during business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region, upon request by interested parties. Only proprietary information, and only at the request of the Discharger, will be treated as confidential.

Ordered by:

  
\_\_\_\_\_  
Tracy J. Egosoue  
Executive Officer

Date: February 19, 2009



EAST 223RD STREET

**LEGEND**



GROUNDWATER MONITORING WELL



CONTOUR OF EQUAL GROUNDWATER ELEVATION  
IN FEET ABOVE MEAN SEA LEVEL (FT/MSL)

0' 30'  
 PAPER SIZE = 8.5" x 11"  
 SCALE = 1" = 30'

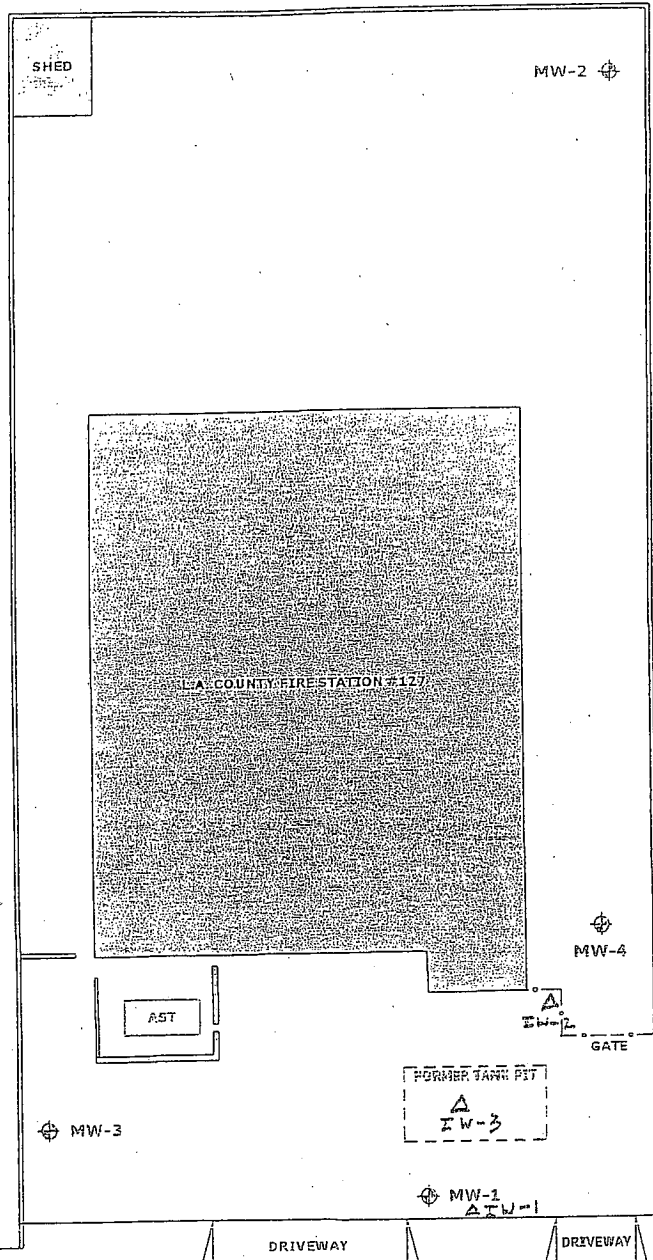
**Applied Environmental Technologies, Inc.**  
 4561 Market Street, Suite B • Ventura, California 93003  
 Phone (805) 650-1400 Fax (805) 650-1576

**GROUNDWATER ELEVATION CONTOUR MAP**  
 JULY, 2007  
 2049 EAST 223RD STREET  
 CARSON, CALIFORNIA  
 FILE NUMBER 0404-05\_Q3

**PROJECT**  
 0404-05  
**PLATE**  
 3

SEPTEMBER 12, 2007





EAST 223RD STREET

- LEGEND
- ⊕ GROUNDWATER MONITORING WELL
  - △ PROPOSED INJECTION WELL FOR FENTON'S REAGENT

0' 30'  
 PAPER SIZE = 8.5" x 11"  
 SCALE - 1" = 30'

**Applied Environmental Technologies, Inc.**

4561 Market Street, Suite B • Ventura, California 93003  
 Phone (805)650-1400 Fax (805)650-1576

**SITE PLAN**  
 2049 EAST 223RD STREET  
 CARSON, CALIFORNIA

FILE NUMBER 0404-05\_Q2 MARCH 7, 2008

**PROJECT**  
 0404-05

**PLATE**  
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