

**Staff Report Attachment 6**

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL COAST REGION**

**MONITORING AND REPORTING PROGRAM NO. R3-2005-0124**

**CONCERNING**

**312 AND 320 NORTH NOPAL STREET  
TECKNIT & TUBE HOLDING SITES  
SANTA BARBARA, CA  
SANTA BARBARA COUNTY**

This Monitoring and Reporting Program supercedes and replaces Monitoring and Reporting Program No. 94-49.

**CHEMICAL OXIDATION MONITORING**

Chemical oxidation involves injection of sodium permanganate to accelerate natural degradation of chlorinated solvent compounds. Tecknit, Inc. and Tube Holding Company, Inc. (a subsidiary of Raytheon Company, Inc.) shall monitor the chemical oxidation process in groundwater as follows:

Groundwater samples shall be collected from wells according to the following schedule:

<b>Sampling Event</b>	<b>Analysis Type</b>	<b>Analyte Group/ Parameter</b>
One week After Injection	Field	Sodium Permanganate <sup>1</sup> , Dissolved Oxygen (DO), Oxygen Reduction Potential (ORP), pH, conductivity, temperature
	Laboratory	Potassium, chloride, sodium, manganese
Periodic Sampling After Injection (monthly for six months then quarterly thereafter)	Field	Sodium Permanganate <sup>1</sup> , DO, ORP, pH, conductivity, temperature
	Laboratory	Volatile Organic Compounds (VOCs) <sup>2</sup> General Minerals and Metals

Notes: Any new wells shall be sampled then added to the monitoring and sampling schedule above.

<sup>1</sup> using the colorimetry method

<sup>2</sup> At a minimum, laboratory results shall report tetrachloroethene, trichloroethene, trichloroethane, dichloroethane, cis 1,2-dichloroethene, trans 1,2- dichloroethene, 1,1-dichloroethene, and vinyl chloride concentrations using USEPA 8260B. The detection limit for individual VOCs shall not exceed 0.5 micrograms per liter (µg/L).

All analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services or at laboratories approved by the Executive Officer. Unless otherwise noted, all sampling, sample preservation, and analyses shall be performed in accordance with the latest edition of *Test Methods for Evaluating Solid Waste*, SW-846, United States Environmental Protection Agency, and analyzed as specified herein by the above analytical methods and detection limits indicated.

Depth to groundwater (to 0.01 feet accuracy) shall be measured in each monitoring well before it is purged and sampled. Before sampling, each well shall be properly purged until measurements of the following parameters have stabilized; temperature, pH, specific conductance, turbidity, and dissolved oxygen. After purging, groundwater samples shall be collected and analyzed as listed above.

### GROUNDWATER EXTRACTION SYSTEM MONITORING

During the chemical oxidation insitu treatment, the groundwater extraction system is not expected to be in operation. However, if the groundwater extraction system is restarted and is in operation, representative samples of the influent, midpoint(s) and effluent\* shall be collected and analyzed as follows:

Parameter	Units	Sample Type	Minimum Frequency of Analysis
Volume	Gallons	Measured	Monthly <sup>1</sup>
VOCs using USEPA Method 8260B	ug/l	Grad	Monthly <sup>1</sup>

Notes:

1. The sampling frequency should be consistent with the City of Santa Barbara's Industrial Waste Discharge Permit requirements for the discharge to the sanitary sewer. Upon approval of the Executive Officer, this sampling frequency of analysis may be reduced.
2. The groundwater extraction system may be re-started to contain sodium permanganate-bearing groundwater from offsite migration, if needed.

### REPORTING SCHEDULE

Technit and Tube Holding shall submit two chemical oxidation monitoring and groundwater sampling reports quarterly, by the 30th day of the month following the end of the quarter (January, April, July, and October). The reports shall include the following:

1. Results of field and laboratory sampling required by this program in tabular form.
2. A table with well-completion information, including total depths and screened intervals of each well.
3. Scaled maps showing the site and the locations of all monitoring wells.
4. Maps showing calculated potentiometric surfaces for each water-bearing zone.
5. All previous data in tabular form to allow comparison of historic data.
6. An evaluation and interpretation of all available data.
7. A detailed discussion of the performance of the chemical oxidation treatment and groundwater extraction and treatment system (if operational), including any recommended modifications.
8. Maps showing analyte concentrations.
9. Sampling protocols and field sampling logs.
10. Certified laboratory analytical reports for current data.

The Executive Officer may revise or rescind this MRP as additional information becomes available.

These requests are made pursuant to the provisions of Section 13267 of the California Water Code. Pursuant to Section 13268 of the Water Code, a violation of a request made pursuant to Water Code Section 13267 may subject you to civil liability of up to \$1,000 per day.

Ordered By:

\_\_\_\_\_  
Roger W. Briggs  
Executive Officer

\_\_\_\_\_  
Date