

**STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
320 West 4th Street, Suite 200, Los Angeles, California 90013**

**FACT SHEET
WASTE DISCHARGE REQUIREMENTS
FOR
FORMER PNEUMO ABEX FACILITY, OXNARD
HYDROGEN RELEASE COMPOUND INJECTION**

**ORDER NO. R4-2005-0030 (SERIES NO. 030)
CI-8984, FILE NO. 02-150**

FACILITY ADDRESS

3151 5TH Street
Oxnard, CA 93035

FACILITY MAILING ADDRESS

38 East 63rd Street
New York, NY, 10021

PROJECT DESCRIPTION:

The land is owned by F & A Airport Commerce Center, Ltd., and was formerly leased to the Pneumo Abex Corporation (Figures 1 and 2). The main building is currently divided into several subleases and is occupied by a paper products warehouse, a bottled beverage warehouse, a “grocery” warehouse, and several offices. There is also a used car repair and resale facility on the north side of the property. Previously, Pneumo Abex manufactured hydraulic pumps, servo valves, and hydraulic systems. In 1989, “strong gaseous odors” were noted during geotechnical drilling at the north side of the building. The odors were from a contaminant release associated with two underground storage tanks which were near the northern portion of the property, adjacent to the building, and a fenced chemical storage area also north of the building. The tanks were removed in 1986. At that time, one tank contained gasoline and the other contained a mixture of waste oil and solvents. Soil samples were not collected. In November 1989, four soil borings were drilled in the area around the raw product storage building north of the main building. This was in the vicinity of the “strong gaseous odors” detected during geotechnical testing. Shallow soil was sampled and analyzed, groundwater was not. Volatile organic compounds (VOCs) were detected. Soil contained trichloroethene (TCE), 1,1-dichloroethane (1,1-DCA), trans-1,2-dichloroethene (trans-1,2-DCE), 1,1,1-trichloroethane (1,1,1-TCA), perchloroethene (PCE), toluene, and total petroleum hydrocarbons (TPH). The highest concentrations were TCE. In April 1990, four soil borings were drilled on the north side of the main building and two were converted to monitoring wells. VOCs were detected in soil. In June 1991, a soil gas survey was conducted at the site, eight shallow hand auger borings were drilled and sampled, and groundwater samples were collected at five locations with a cone penetrometer. Later in June 1991, four soil borings were drilled and sampled, and three were converted to groundwater monitoring wells. Soil vapor samples from the north side of the building, between the raw products storage area and the Oxnard Airport fence, contained the highest VOC concentrations. In January 1994, soil samples were collected at five cone penetrometer and four hand-auger locations. VOCs were detected in soil and groundwater. From March 24 through June 8, 1994, soil and groundwater samples were collected from 27 locations with a cone penetrometer and Hydropunch. Following the cone penetrometer work, soil and groundwater were sampled at 19 more locations with a Geoprobe and Hydropunch. VOCs were detected in soil and groundwater. Five groundwater monitoring wells, two piezometers, and one

groundwater extraction well were then installed. The hydrostratigraphic data indicate that three aquifer zones (shallow to deep, "A", "B", and "C") exist beneath the site, with VOCs present, primarily, in the "A" and "B" zones. Quarterly groundwater monitoring has taken place since 1994.

In 1995, approximately 11,000 cubic yards of source area soil were excavated. The excavation had a maximum depth of 20 feet. Nine horizontal vapor extraction wells were installed in trenches at the base of the excavation to further remediate the source area. The horizontal wells are below groundwater and have not been used for vapor extraction. Initially groundwater was to be pumped and the groundwater level lowered below the horizontal vapor extraction wells. Then, vapor extraction was to be used to remove the remaining contamination in the source area. An evaluation of soil engineering characteristics indicated that foundation damage would occur if dewatering took place. It has not been possible to use the horizontal vapor extraction wells for vapor extraction.

As of January 2005, the detectable TCE plume was more than 2,000 feet long and 1,000 feet wide. Groundwater occurs approximately 10 feet below grade. When pumping wells are not operating, the groundwater gradient is to the southwest at approximately 0.002 foot/foot (Figure 3). As of October 2005, PW-01 and PW-06 were operating as extraction wells. The groundwater is treated and discharged to the storm drain under National Pollutant Discharge Elimination System Permit Number CA0063894 (File No. 02-150, Order No. R4-2005-0045).

VOLUME AND DESCRIPTION OF INJECTION:

Hydrogen releasing compound (HRC) is to be injected into the contaminant plumes in groundwater. HRC is capable of supporting reductive (anaerobic) dechlorination when the proper microbes are present in the subsurface. Existing site data and the results of a recent HRC pilot test indicate that HRC may be useful for VOC removal.

Approximately 95,500 pounds of HRC will be injected at 394 locations. The injection areas are shown in figures 2 and 3. At some locations the injection will occur over the interval of 10 feet to 28 feet below ground surface at other locations the interval will be from 10 feet to 33 feet below the surface. The interval for injection was selected based in the distribution of VOCs at the specific location. The injection process will be completed in approximately 5 weeks. Remediation is expected to take several years. Any potential adverse water quality impacts that may result will be localized, of short-term duration, and will not impact any existing or prospective uses of groundwater. Groundwater quality will be monitored to verify that there are no long-term adverse impact to water quality.