

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 87-8

SITE CLEANUP REQUIREMENTS FOR:

HEWLETT-PACKARD COMPANY
974 E. ARQUES AVENUE FACILITY
SUNNYVALE, SANTA CLARA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board) finds that:

1. Hewlett-Packard Company (hereinafter called the discharger) manufactures computer products at a facility located at 974 E. Arques Avenue, Sunnyvale. The current Hewlett-Packard has operated the site from 1972 to present.
2. Studies by the discharger show that groundwater beneath the site have been polluted by organic solvents such as trichloroethylene (TCE), 1,1,1-trichloroethane (TCA), 1,1-dichloroethane, trans-1,2-dichloroethylene, 1,1-dichloroethene, freon, xylenes, ethylbenzene, benzene, toluene, carbon tetrachloride, methylene chloride, styrene, chloroform, acetone, perchloroethylene, and chlorobenzene. Pollutant concentrations in many upgradient monitoring wells indicated migration of TCE, TCA, 1,1 DCE, and Tran-1,2 DCE onto their property. However, there is an evidence of one isolated source on the property.
3. The discharger has undertaken investigations to define the extent of pollution and implement remedial measures. Onsite remedial measures implemented to date include soil excavation, installation of onsite groundwater extraction wells and removal of underground tanks and sumps which have stored hazardous materials.
4. As of September 30, 1986, the discharger has installed approximately 45 monitoring wells and soil borings to evaluate the lateral and vertical extent of groundwater contamination. The most recent chemical data indicates that the highest concentrations of contaminants exist in the vicinity of the suspected source area adjacent to the monitoring wells M11, and pollutants have migrated approximately 300 feet downgradient and extend vertically downward to a depth of more than 25 feet. the discharger is in the process of finalizing a recommended plan for interim remedial cleanup measures.

5. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay region (Basin Plan) on July 21, 1982. The Basin Plan contains water quality objectives and beneficial uses for South San Francisco Bay and contiguous surface and groundwaters.
6. The existing and potential beneficial uses of the groundwater underlying and adjacent to the facility include:
 - a. Industrial process water supply
 - b. Industrial service supply
 - c. Municipal and Domestic supply
 - d. Agricultural supply
7. The discharger has caused or permitted, and threatens to cause or permit waste to be discharged or deposited where it is or probably will be discharged to waters of the State and creates or threatens to create a condition of pollution or nuisance.
8. This action is an order to enforce the laws and regulations administered by the Board. This action is categorically exempt from the provisions of the CEQA pursuant to Section 15321 of the Resources Agency Guidelines.
9. The Board has notified the dischargers and interested agencies and persons of its intent under California Water Code Section 13304 to prescribe Site Cleanup Requirements for the discharge and has provided them with the opportunity for a public hearing and an opportunity to submit their written views and recommendations.
10. Onsite and offsite interim containment and cleanup measures need to be implemented to alleviate the substantial threat to the environment posed by the continued migration of pollutants and to provide a substantive technical basis for designing and evaluating the effectiveness of final cleanup alternatives.
10. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that the discharger shall cleanup and abate the effects described in the above findings as follows:

A. PROHIBITIONS

1. The discharge of wastes or hazardous materials in a manner which will degrade water quality or adversely affect the beneficial uses of the waters of the State is prohibited.

2. Further significant migration of pollutants through subsurface transport to waters of the State is prohibited.
3. Activities associated with the subsurface investigation and cleanup which will cause significant adverse migration of pollutants are prohibited.

B. SPECIFICATIONS

1. The storage, handling, treatment or disposal of polluted soil or groundwater shall not create a nuisance as defined in Section 13050(m) of the California Water Code.
2. The discharger shall conduct monitoring activities as needed to define the current local hydrogeologic conditions, and the lateral and vertical extent of soil and groundwater pollution. Should monitoring results show evidence of pollutant migration, additional characterization of pollutant extent may be required.

C. PROVISIONS

1. The discharger shall submit to the Board acceptable technical reports on self-monitoring work performed according to a program prescribed by the Board's Executive Officer.
2. The discharger shall comply with Prohibitions A.1., A.2., and A.3., and Specifications B.1. and B.2. above, in accordance with the following time schedule and tasks:

COMPLETION DATE/TASK:

- a. COMPLETION DATE: February 28, 1987

TASK: Submit a technical report satisfactory to the Executive Officer which contains a recommended interim remedial action plan with a discussion of alternative plans considered in the development of the recommended plan. This report shall include consideration of the removal and/or cleanup of polluted soils, and an implementation time schedule, if the plan includes such removal or cleanup. This report shall also consider any necessary hydraulic control systems to contain and cleanup polluted groundwater onsite and should include a completed NPDES application to discharge to surface waters, if such discharge is an element of the plan.

b. COMPLETION DATE: May 15, 1987

TASK: Submit a technical report satisfactory to the Executive Officer documenting completion of the installation and commencement of operations of necessary hydraulic control and/or treatment facilities of adequate design to contain and cleanup the onsite pollutant plume.

c. COMPLETION DATE: October 15, 1987

TASK: Submit a technical report satisfactory to the Executive Officer which evaluates the effectiveness of the hydraulic containment system. Such an evaluation shall include, but need not be limited to, an estimation of the flow capture zone of the extraction wells, establishment of the cones of depression by field measurements, and presentation of chemical monitoring data, if extraction wells are proposed. This report shall also evaluate and document the removal and/or cleanup of polluted soils, if such removal and/or cleanup is an element of the remedial action plan. Specific modifications to the system and an implementation time schedule shall be proposed in the event that the hydraulic control system is demonstrated not to be effective in containing and cleaning up the onsite pollutant plume.

d. COMPLETION DATE: May 15, 1988

TASK: Submit a technical report satisfactory to the Executive Officer containing the remedial investigation, an evaluation of alternative final remedial measures and a recommendation on which additional measures are necessary to achieve a final cleanup objectives. The technical report shall include a projection of the cost, effectiveness, benefits, and impact on public health, welfare, and environment of each alternative measure and shall consider the guidance provided by Subpart F of the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300), Section 25356.1 (c) of the California Health and Safety Code, and CERCLA guidance documents.

3. If the discharger(s) is/are delayed, interrupted or prevented from meeting one or more of the completion dates specified in this Order, the discharger(s) shall promptly notify the Executive Officer.

4. Technical reports on compliance with the Prohibitions, Specifications, and Provisions of this Order shall be submitted monthly to the Board commencing on March 15, 1987 and covering the previous month. On a monthly basis thereafter, these reports shall consist of a letter report that, (1) summarizes work completed since submittal of the previous report, and work projected to be completed by the time of the next report, (2) identifies any obstacles which may threaten compliance with the schedule of this Order and what actions are being taken to overcome these obstacles, and (3) includes, in the event of noncompliance with Provision C.2. or any other Prohibition, Specification, or Provision of this Order, written notification which clarifies the reasons for non-compliance and which proposes specific measures and a schedule to achieve compliance. This written notification shall identify work not completed that was projected for completion, and shall identify the impact of non-compliance on achieving compliance with the remaining requirements of this Order.

On a quarterly basis, commencing with the 1st monthly report due on April 15, 1987, the monthly reports shall include, but need not be limited to, updated water table and piezometric contour maps, pollution concentration contour maps for all affected water bearing zones, cross-sectional geological maps describing the hydrogeological setting of the site, and appropriately scaled and detailed base maps showing the location of all monitoring wells and extraction wells, and identifying adjacent facilities and structures.

5. All hydrogeological plans, specifications, reports, and documents shall be signed by or stamped with the seal of a registered geologist, engineering geologist or professional engineer.
6. All samples shall be analyzed by State certified laboratories or laboratories accepted by the Board using approved EPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/quality control records for Board review.
7. The discharger(s) shall maintain in good working order, and operate, as efficiently as possible, any facility or control system installed to achieve compliance with the requirements of this Order.
8. Copies of all correspondence, reports, and documents pertaining to compliance with the Prohibitions, Specifications, and Provisions of this Order, shall be provided to the following agencies:

- a. Santa Clara Valley Water District
- b. Santa Clara County Health Department
- c. City of Sunnyvale
- d. State Department of Health Services/TSCD
- e. State Water Resources Control Board
- f. U. S. Environmental Protection Agency, Region IX

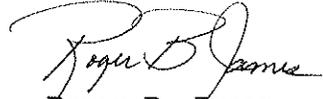
The Executive Officer may additionally require copies of correspondence, reports and documents pertaining to compliance with the Prohibitions, Specifications, and Provisions of this Order to be provided to the U.S. Environmental Protection Agency, Region IX, and to a local repository for public use.

9. The discharger(s) shall permit the Board or its authorized representative, in accordance with Section 13267(c) of the California Water Code:
 - a. Entry upon premises in which any pollution sources exist, or may potentially exist, or in which any required records are kept, which are relevant to this Order.
 - b. Access to copy any records required to be kept under the terms and conditions of this Order.
 - c. Inspection of any monitoring equipment or methodology implemented in response to this Order.
 - d. Sampling of any groundwater or soil which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the discharger.
10. The discharger(s) shall file a report on any changes in site occupancy and ownership associated with the facility described in this Order.
11. The discharger shall report any newly discovered spill of oil or other hazardous material. Spills shall be reported to this Regional Board, at (415) 464-1255 on weekdays during officer hours from 8 a.m. to 5 p.m., and to the Office of Emergency Services at (800) 852-7550 during non-office hours, and the U.S. Coast Guard at (415) 556-3741 by telephone immediately after discovery of occurrence. A written report shall be filed with the Regional within five (5) working days and shall contain information relative to: the nature of waste or pollutant, quantity involved, duration of incident, cause of spill, Spill Prevention and

Containment Plan (SPCC) in effect, if any, estimated size of affected area, nature of effects, corrective measures that have been taken or planned, and a schedule of these activities, and persons notified.

12. The Board will review this Order periodically and may revise the requirements when necessary.

I, Roger B. James, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on February 18, 1987.


Roger B. James
Executive Officer