CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 93-92
AMENDMENT TO SITE CLEANUP REQUIREMENTS ORDER NO. 90-89

HEWLETT-PACKARD COMPANY
1501 PAGE MILL ROAD
PALO ALTO
SANTA CLARA COUNTY

STANFORD UNIVERSITY
PALO ALTO
SANTA CLARA COUNTY

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

1. Hewlett-Packard Company operates an electronics research and production facility at 1501 Page Mill Road in Palo Alto. The land has been leased by Hewlett-Packard from Stanford University since 1956. Hewlett-Packard Company is primarily responsible for this discharge and is hereinafter called a discharger for the purposes of this Order. Stanford University is secondarily responsible for purposes of this Order.

2. This site was proposed for addition to the National Priorities List (NPL) on October 15, 1984 and since that time the site has been regulated based on Comprehensive Environmental Resource Compensation Liability Act (CERCLA) and Health and Safety Code requirements. On September 12, 1989, the discharger was notified that the site was dropped from consideration as an NPL site because the site is regulated under the Resource Conservation and Recovery Act (RCRA). The Regional Board will continue to regulate the discharger's remediation consistent with CERCLA as amended.

3. The site consists of seven main buildings that primarily house research and manufacturing facilities. Recently Hewlett-Packard has been converting the facility to offices with minimal research or manufacturing. The site also contains currently used chemical storage sheds and a corporate gas station (Figure 1).

4. The Board issued Waste Discharge Requirements (Order No. 86-22) on March 19, 1986. This Order was amended on October 17, 1986 with Order No. 86-94 and consisted of schedule extensions to the original Order.

5. The Board issued Site Cleanup Requirements on May 17,1989 (Order No. 89-81) and revised them on June 20, 1990 (Order No. 90-89). The two orders requesting the completion of the Remedial Investigation, Feasibility Study, and

Remedial Action Plan. Complex hydrogeologic conditions at the site led to a delay in the submittal date of the Remedial Investigation.

6. The Remedial Investigation submitted in 1990 indicated the hydrogeology of the site consists of slightly dipping semi-continuous gravels, sands, silts and clays. However, the extent of chemicals in the groundwater and source areas of these chemicals were not fully understood. Board staff asked Hewlett-Packard to continue investigating the site to determine the full extent of the chemical distribution in groundwater.

7. This investigation found additional areas of significant contamination requiring an unknown period of time to investigate. Board staff did not recommend enforcement of original deadlines due to the unknown time required to investigate the nature of the newly discovered additional contamination. Deadlines for re submittal of a revised RI/FS were postponed until the area was better understood.

8. Hewlett-Packard submitted a revised RI/FS in mid 1992 which indicated that the extent of contamination was fairly well understood. Board staff comments at the end of 1992 and required additional investigation which is currently underway and should be complete in the next several months.

9. Now that the site is fairly well understood and the revision of the RI/FS is nearly complete, a revision of due dates in the SCR is appropriate. Hewlett-Packard will resubmit the RI/FS in the fall.

10. The site can be divided into three areas of significant contamination:

    a. The main plume area northeast of buildings 2, 4, and 6. This broad area has many different sources including many former tank locations. The primary groundwater contaminants in this area are TCE and benzene. The plumes extends to beneath the corporate building on-site and to Page Mill Road, where it merges with the Northwest plume.

    b. The area north of building 1. This area's main source is from a former underground tank near the northwest corner of building 1, as well as contributions from the main plume area. The contaminant here is TCE. The plume extends across Page Mill Road towards California Avenue.

    c. The area on the south side of buildings 1, 3, and 5. The source for this TCE contamination is most likely the tank near the northwest corner of building 1. This plume extends onto the Hewlett-Packard building 28 site which is part of the Hillview-Porter investigation under the direction of the Department of Toxic Substances Control.

11. Interim remedial measures at the site consist of soil vapor and groundwater extraction wells. The soil vapor wells have removed approximately 6400 pounds of VOCs from the vadose zone. Six groundwater wells currently extract between 2 and 9 gallons per minute of contaminated water.

12. 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.

13. The Board has notified the dischargers and all interested agencies and persons of its intent under California Water Code Section 13304 to amend Site Cleanup Requirements for the discharges and has provide them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

14. The Board, at a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that Order No. 90-089 (Site Cleanup Requirements) is amended as follows:

C.2.b Task: Submittal of revised Remedial Investigation and Feasibility Study reports.

Completion Date: **January 17, 1994.**

The discharger shall submit a technical report acceptable to the Executive Officer that: revises the Remedial Investigation to describe the vertical and lateral extent of contamination, and a revised Feasibility Study evaluating alternative final remedial measures. The submittal of technical reports evaluating interim and final remedial measures will include a projection of the cost, effectiveness, benefits and impact on public health, welfare and environment of each alternative measure. The Remedial Investigation and Feasibility Study shall be consistent with 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; CERCLA guidance documents with reference to Remedial Investigation, Feasibility Studies, and Removal Actions; and the State Water Resource Control Board's Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California.

C.2.c Task: Recommended final remedial measures and final cleanup goals

Completion Date: **January 17, 1994**

The discharger shall submit the recommended final remedial measures and final cleanup objectives. This submittal must include the tasks and time schedule necessary to implement the final remedial measures as well as the length of time to obtain final cleanup objectives.

I, Stephen R. Ritchie 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 August 18, 1993.

Steven R. Ritchie
Executive Officer