

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**

ORDER No. R2-2015-0051

**RESCISSION OF SITE CLEANUP REQUIREMENTS (ORDER Nos. 96-037 and 97-064)
for:**

PHILIPS ELECTRONICS NORTH AMERICAN CORPORATION

for the property located at:

740 KIFER ROAD
SUNNYVALE, SANTA CLARA COUNTY

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

1. **Regional Water Board Orders:** The Regional Water Board adopted site cleanup requirements (SCR) for the site at 740 Kifer Road, Sunnyvale (Site) on March 20, 1996 (Order No. 96-037) and amended the SCR on May 21, 1997 (Order No. 97-064). Both orders name Philips Electronics North American Corporation (Philips) as the discharger. Philips had previously acquired Signetics Corporation (Signetics) and assumed responsibility for its environmental cleanups.
2. **Compliance with Regional Water Board Orders:** These orders required the discharger to define the extent of pollution at the Site and implement a remedial action plan. The discharger has completed these tasks.
3. **Basis for Rescission:** Rescission of Order Nos. 96-037 and 97-064 is appropriate for the reasons discussed below:
 - a. **Pollutant sources are identified and evaluated.** The primary pollutant sources were an underground waste solvent storage tank and a wastewater neutralization system used in Signetics' semiconductor operations at the Site from 1970 to 1982.
 - b. **The Site is adequately characterized.** The Site was characterized through a series of soil, soil gas, and groundwater investigations. Thirty monitoring and extraction wells were installed starting in 1983 and adequately defined the lateral and vertical extent of the plume of volatile organic compounds (VOCs) in groundwater. Aquifers A, B1, and B2 were investigated. The primary chemicals of concern are perchloroethene (PCE), trichloroethene (TCE), and cis-1,2-dichloroethene (DCE). VOCs have not been detected in aquifer B2.
 - c. **Exposure pathways, receptors, and potential risks, threats, and other environmental concerns are identified and assessed.** The Site and the downgradient area are zoned for industrial use. The Site has been redeveloped with the construction of a one-story commercial building and paved parking areas. The

shallow groundwater beneath the Site is not currently used for drinking water. The VOC plume does not threaten deeper groundwater aquifers that are used for drinking water due to the presence of an extensive regional aquitard separating the shallow and deeper aquifers. The nearest water supply well is located three-quarters of a mile upgradient of the Site. Vapor intrusion is discussed in finding 3.e.

- d. **Pollutant sources are remediated to the extent feasible.** The waste solvent storage tank and adjacent VOC-impacted soils were removed in 1982. The wastewater neutralization system was removed in 1987. A groundwater extraction and treatment system operated at the Site from 1983 to 2009 to control and remediate the impacts to the groundwater in aquifers A and B1. The treatment system removed a total of over 115 pounds of VOCs. The system was shut down because its removal efficiency had decreased considerably.
- e. **Unacceptable risks to human health, ecological health, and sensitive receptors, considering current and future land and water uses, are mitigated.** Based on sampling conducted in 2014, TCE concentrations in groundwater are equal to the residential environmental screening level (ESL) for vapor intrusion, and TCE concentrations in soil gas are less than the residential ESL for vapor intrusion. Therefore, vapor intrusion in a residential land use is not a concern. Based on sampling conducted in 1982, total VOC concentrations in soil are less than the Site's 1 milligram per kilogram cleanup level for soil and less than the residential ESL for direct exposure to soil. Therefore, direct exposure to soil in a residential land use is not a concern.
- f. **Unacceptable threats to groundwater and surface water resources, considering existing and potential beneficial uses, are mitigated.** The shallow groundwater plume is not impacting any surface water bodies or drinking water wells. All onsite and offsite groundwater monitoring wells associated with the Site will be properly destroyed. As discussed in finding 3.c, shallow groundwater beneath the Site is not currently used for drinking water and an extensive regional aquitard separates the shallow, affected aquifer from the deeper, water supply aquifer.
- g. **Groundwater plume is decreasing.** The remediation has greatly reduced groundwater VOC concentrations. Monitoring results over 32 years indicate that the groundwater plume has been shrinking steadily in size. Onsite TCE concentrations in groundwater have decreased from 840 micrograms per liter (ug/L) in 1982 to 44 ug/L in 2014. Onsite TCE concentrations in groundwater ranged between 11 ug/L and 44 ug/L in 2014. Offsite TCE concentrations in groundwater ranged between 1.7 ug/L and 130 ug/L in 2014. Offsite TCE concentrations in groundwater have decreased from 35 ug/L in 1986 to 1.7 ug/L in 2014 in the furthest distal monitoring well (S110A) located approximately 700 feet downgradient of the Site's northern property boundary.
- h. **Cleanup levels can be met in a reasonable time frame.** Natural attenuation is expected to reduce remaining Site-related contaminant concentrations in shallow

groundwater to below drinking water standards before the shallow groundwater will be used as a source of drinking water.

- i. **Risk management measures are not needed.** The shallow groundwater exceeds drinking water standards for TCE (130 ug/L vs 5 ug/L). A deed restriction is not needed because shallow groundwater beneath the Site is not currently used as a source of drinking water and is not expected to be used in the foreseeable future, the exceedences above the drinking water standard are not substantial, and there are no other pathways of concern. Natural attenuation is expected to reduce concentrations to below drinking water standards. In the event the Site is ever re-zoned residential, it is standard practice for a redeveloper of a site with a history of contamination to perform a current soil gas survey, which would inform the developer of any remaining concentrations.
4. **Next Steps Prior to Case Closure:** The former groundwater treatment system and monitoring wells owned by the discharger need to be properly removed before this case is closed by the Regional Water Board, to eliminate vertical conduits for potential future groundwater contamination.
5. **California Safe Drinking Water Policy:** It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy because maximum contaminant levels designed to protect human health and ensure that water is safe for domestic use are and will continue to be met in existing and future supply wells. The extent of contamination from the Site does not reach any water supply wells and is not expected to migrate to any water supply wells.
6. **CEQA:** This action rescinds an order to enforce the laws and regulations administered by the Regional Water Board. Rescission of the order is not a project as defined in the California Environmental Quality Act (CEQA). There is no possibility that the activity in question may have a significant effect on the environment. (Cal. Code Regs., tit. 14 §§ 15378 and 15061, subd. (b) (3).)
7. **Notification:** The Regional Water Board has notified the discharger and all interested agencies and persons of its intent under Water Code section 13304 to rescind site cleanup requirements for the discharge, and has provided them with an opportunity to submit their written comments.

IT IS HEREBY ORDERED, pursuant to sections 13304 and 13267 of the Water Code, that Orders No. 96-037 and 97-064 are rescinded.

IT IS FURTHER ORDERED that the discharger shall properly close all monitoring and extraction wells consistent with applicable local agency requirements and shall document such closure in a technical report to be submitted to the Regional Water Board within 30 days following the completion of closure activities.

I, Bruce H. Wolfe, 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 December 18, 2015.

Bruce H. Wolfe
Executive Officer

FAILURE TO COMPLY WITH THE REQUIREMENTS OF THIS ORDER MAY SUBJECT YOU TO ENFORCEMENT ACTION, INCLUDING BUT NOT LIMITED TO: IMPOSITION OF ADMINISTRATIVE CIVIL LIABILITY UNDER WATER CODE SECTIONS 13268 OR 13350, OR REFERRAL TO THE ATTORNEY GENERAL FOR INJUNCTIVE RELIEF OR CIVIL OR CRIMINAL LIABILITY
