

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

**ORDER No. R2-2014-0016**

**RESCISSION OF SITE CLEANUP REQUIREMENTS (ORDER No. 90-105) for:  
INTEL CORPORATION**

for the property located at:

2880 NORTHWESTERN PARKWAY  
SANTA CLARA, 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 for the site at 2880 Northwestern Parkway, Santa Clara (Site) on July 18, 1990 (Order No. 90-105). This order named Intel Corporation (Intel) as a discharger. The order set cleanup levels for groundwater and required implementation of the selected remedial action plan of groundwater extraction and treatment.
  
2. **Summary of Investigation and Remediation Activities:** Intel began operating a semiconductor testing facility at the Site in 1975 and used chlorinated solvents in its operations. Intel began investigation of soil and groundwater beneath the Site in 1982 in response to a Regional Water Board leak detection program to define the extent of leakage from underground storage tanks and pipes within the region. Groundwater beneath the Site was discovered to be polluted with solvents, primarily the volatile organic compounds (VOCs) trichloroethene (TCE), 1,1,1-trichloroethane, their breakdown products, and Freon 113. The main contaminant of concern is TCE. The maximum concentration of TCE detected in groundwater at the Site was 490 µg/L. For comparison, the groundwater cleanup level for TCE is 5 µg/L, which is the drinking water standard. Several potential sources were investigated including an acid waste neutralization system, an aboveground solvent storage tank, and pipe cleaning during building construction. No definite source and no soil source area were found. This Site was one of the early discoveries of groundwater pollution from solvent releases in Santa Clara County and was placed on U.S. EPA's National Priorities List (federal Superfund list) in 1986. Intel installed a groundwater extraction and treatment system at the Site and operated three extraction wells. By 1989, all VOC concentrations except for TCE were below the cleanup levels in all groundwater wells. By 1990, the rate of reduction of TCE in groundwater was declining. Pulsed pumping trials were implemented to determine if the efficiency of TCE removal through groundwater extraction could be improved. The conclusion of the pulsed pumping trials was that removal efficiency did not improve.

In 1992, the groundwater extraction system was shut down and a trial of monitored natural attenuation (MNA) was initiated. Under MNA, the groundwater was monitored regularly but no active remediation was performed. TCE levels continued to slowly decline over the next 15 years. Downgradient monitoring wells remained non-detect for TCE, indicating that the pollutant plume was not migrating offsite.

In 2008, Intel prepared a focused feasibility study to determine what additional steps could be taken to achieve groundwater cleanup levels. Intel voluntarily implemented chemical oxidation through injection of an oxidizing solution (RegenOx) into the subsurface to chemically destroy TCE and any other VOCs the oxidant contacted. The TCE concentrations in groundwater were not significantly reduced. In 2010, Intel evaluated the potential for vapor intrusion by sampling indoor air and found that indoor air levels were well below U.S. EPA's Regional Screening Levels.

3. **Basis for Rescission:** The Regional Water Board was the lead regulatory agency for this Site from 1982 until 2006. In 2006, the Regional Water Board transferred the Site to U.S. EPA because the Site qualified for low-threat closure pursuant to State Water Board policy but did not qualify for closure pursuant to U.S. EPA's requirements. (The Regional Water Board has designated groundwater throughout the region as having a drinking water beneficial use, and U.S. EPA cannot close this case until the groundwater cleanup level associated with that beneficial use, 5 µg/L, is met in all groundwater beneath the site.) Maximum TCE concentrations in groundwater at the time of transfer were 13 µg/L. U.S. EPA subsequently issued a record of decision amendment and unilateral administrative order for the Site, which approved a new cleanup plan of MNA and required Intel to implement the MNA plan. With these two documents in place, the Regional Water Board may now rescind its site cleanup requirements. As of 2013, the maximum concentration of TCE in shallow groundwater at the Site was 6 µg/L.
4. **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, before rescinding this Site's site cleanup requirements, the Regional Water Board has ensured adequate safeguards exist to ensure groundwater at the Site will meet maximum contaminant levels designed to protect human health and ensure that water is safe for domestic use. Those safeguards include a deed restriction prohibiting drinking-water wells at the Site until maximum contaminant levels are met; the Regional Water Board is a beneficiary and a signatory of the deed restriction.
5. **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).)
6. **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 section 13304 of the Water Code, that Order No. 90-105 is rescinded.

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Bruce H. Wolfe  
Executive Officer