

DEQ SITE ASSESSMENT SECTION - STRATEGY RECOMMENDATION

Site Name: Intel Corporation - Aloha Campus
Site CERCLIS Number: ORD060591963
DEQ ECSI Number: 124 # 1131
Site Address: 3585 SW 198th Avenue
Aloha, Oregon 97007
Recommendation By: Daniel Hafley, Hydrogeologist *DH*
Approved By: Michael *M20* Downs, Environmental Cleanup
Division Manager
Date: October 26, 1992

Background:

A federal Site Inspection (SI) was completed for the Intel Corporation, Aloha Campus site by EPA's contractor, Ecology and Environment, Inc. (E & E), in July 1991. Based on the SI, it was determined that no further investigation was anticipated for the site under CERCLA; EPA did find it appropriate to refer the site to Oregon DEQ for further consideration. DEQ's Site Assessment Section has reviewed the Intel SI. The following are conclusions drawn from review of this document and more recent information provided by Intel, and a recommendation for the site with regards to possible state action.

Intel Corporation, Aloha Campus is a 37.9 acre site located in Aloha, Oregon. From 1977 to present a semiconductor chip manufacturing facility has been located on the site; the site was an orchard prior to being purchased and developed by Intel. A number of different hazardous wastes are generated at Intel including chlorinated solvents, arsenic, corrosives, etc. Solvents and corrosives are used at Intel for cleaning, stripping, and etching wafers. ✓✓

In July 1982, a number of waste organic chemicals (including xylene, butyl acetate, and 1,1,1-trichloroethane) leaked from an underground solvent waste storage tank at the site. The leak was apparently discovered after the leaking fluids damaged some underground piping. According to Intel, the leaking storage tank, along with the only other underground waste solvent tank at the site, were removed shortly after the incident and the area paved. The amount of lost solvent is not known. Intel officials have been unable to determine if contaminated soils were excavated during the tank removal.

Later in 1982, six monitoring wells were installed at the site. Each of these wells have been sampled once or twice yearly since installation. Sampling of these monitor wells in 1983 showed groundwater at the site to be contaminated with a number of organic compounds including 1,1-DCE, 1,1-DCA, T-1,2-DCE, 1,1,1-TCA, TCE, xylenes, and 1,1,2-trichloro-1,2,2-trifluoroethane.

Sampling performed in June 1990 for an EPA Site Inspection showed that the concentration of contaminants in on-site wells had generally decreased over time, however significant concentrations of hazardous substances remained in three of the six on-site monitor wells.

Dichlorodifluoromethane (45 ppb), 1,1-DCE (31 ppb), and 1,1-DCA (32 ppb) were detected in monitor well AW-1. Methyl ethyl ketone (1,100 ppb) and tetrahydrofuran (180 ppb) were detected in monitor well AW-2. Both of these wells lie near the southeast perimeter of the site. 1,1-DCE (25 ppb), 1,1-DCA (83 ppb), T-1,2-DCE (31 ppb), 1,1,1-TCA (64 ppb), total xylenes (9 ppb), Freon (11 ppb), and ethyl benzene (8 ppb) were detected in monitor well AW-6, which is located near the former location of the leaking underground storage tank.

Five additional monitor wells were installed along the southeast perimeter of the site in 1992; one of the five (AW-7) was abandoned after sampling due to potential cross-contamination problems. The latest sampling of site monitor wells was in September 1992. VOCs were once again detected in a number of the on-site wells, albeit at generally lower levels. Vinyl chloride was detected above MCLs at two locations (2.0, 2.5 ppb), 1,1-DCE at four locations (15-54.5 ppb), and TCE at one location (30 ppb). Note that in the March 1992 sampling of the well AW-7, which was later abandoned, VOCs were detected as follows: vinyl chloride to 100 ppb, 1,1-DCE to 48 ppb, cis 1,2-DCE to 900 ppb, 1,1-DCA to 400 ppb, and TCE to 200 ppb. Contamination has almost certainly migrated off the Intel site and beneath a single-family residential neighborhood located adjacent to the site. The extent of off-site migration is not known.

There appear to be no active groundwater wells located within 2,000 feet downgradient of the site. Groundwater use within 4 miles of the Intel site is limited; most drinking water is supplied by the Wolf Creek Highway Water District, which obtains its water from the City of Portland (Bull Run watershed). Access to the site is restricted, and most of the site is paved. There appears to be limited potential for a release to air or surface water, or for direct contact with hazardous substances at the site.

The Intel - Aloha site has been identified as a hazardous waste generator, and is regulated under RCRA. RCRA compliance inspections have been performed for the site by both DEQ and EPA. RCRA regulators do not appear to have had any involvement with the release of hazardous substances to groundwater at the site. DEQ's Northwest Region office has had limited involvement with the site.

Recommendation/Action:

The Site Assessment Section has reviewed the SI and related documents for the Intel Corporation, Aloha Campus site. Site information has also been evaluated by a DEQ toxicologist. It is recommended that the site be proposed for DEQ's Confirmed Release List (CRL) and Inventory based on the documented release of hazardous substances at the site, and the need for either remediation or long-term institutional controls to protect present and future public health and the environment.

Referrals Within or Outside DEQ:

This site has not been referred to another division of DEQ or an outside regulatory agency.

Other:

This site is currently listed in DEQ's ECSI database, however the database does not contain information concerning the release of hazardous substances to soil and groundwater at the site in 1982, and subsequent investigative efforts. The site report will be updated accordingly.