RECORD OF DECISION
DECLARATION STATEMENT

SITE NAME AND LOCATION

Applied Materials Inc., Superfund Site
Santa Clara, California

STATEMENT OF BASIS AND PURPOSE

This decision document presents the selected remedial action for the groundwater operable unit for the Applied Materials Superfund site located in Santa Clara, California, developed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. Section 9601, (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan, 40 C.F.R. Part 300, 55 Fed. Reg. 8666 (3/9/90) (NCP). The decision is based on the administrative record for this site.

The State of California has no objections to the technical elements of the selected remedy.

ASSESSMENT OF THE SITE

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action selected in this Record of Decision (ROD), may present an imminent and substantial endangerment to the public health, welfare, or the environment.

DESCRIPTION OF THE SELECTED REMEDY

The selected remedy for the Applied Materials site addresses groundwater contamination, in which trichloroethane (TCA) is the primary contaminant detected above drinking water standards. Analytical results from January - June 1989 indicate the presence of the following contaminants in groundwater: 1,1,1-TCA at 1,100 ppb; 1,1-DCA at 120 ppb; 1,1-DCE at 50 ppb; TCE at 20 ppb; PCE at 9 ppb; 1,2-DCA at 2.3 ppb; 1,2-DCE at 0.6 ppb; 1,1,2-TCA at 1.0 ppb; Freon 113 at 170 ppb; and Freon 11 at 48 ppb.

This action represents the final remedial action to remove contaminants from groundwater. Several response measures were previously implemented at the site by Applied Materials. The major components of the selected remedy are:

a. Continue pumping from existing groundwater extraction wells until drinking water standards for TCE (5 ppb); 1,2-DCA (0.5 ppb); 1,1-DCE (6ppb); 1,1-DCA (5 ppb), cis-1,2-DCE (6 ppb); trans-1,2-DCE (10 ppb); 1,1,1-TCA (200

ppb), 1,1,2-TCA (32 ppb), Freon 113 (1200 ppb), and Freon 11 (150 ppb) chloroform (6 ppb), and vinyl chloride (0.5 ppb) are achieved;

b. Treat extracted groundwater using an existing air stripping system;

c. Continue groundwater monitoring at the site during the cleanup period;

d. Implement institutional controls, such as deed restrictions, which will control and restrict the withdrawal and use of contaminated groundwater and control and limit activities that could result in exposure to volatile organic compound (VOC) contamination. Controls and restrictions within the plume will be necessary until drinking water levels have been achieved for all VOCs.

e. Reclamation and/or reuse of 100% of the groundwater that is extracted and treated is a goal of this remedial action.

f. Discharge treated water off-site to a storm sewer system tributary of San Tomas Aquino Creek pursuant to an NPDES permit.

STATUTORY DETERMINATIONS

The selected remedy is protective of human health and the environment, complies with federal and State requirements that are legally applicable or relevant and appropriate to the remedial action and is cost-effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies to the maximum extent practicable and satisfies the statutory preference for selecting remedies that employ treatment as a principal element and that significantly and permanently reduces the toxicity, mobility, or volume of the hazardous substances.

A review of the remedial action will be conducted every five years after commencement to ensure that the remedy continues to provide protection of human health and the environment.

9.28.95
Date

John Wise
for Daniel W. McGovern
Regional Administrator
EPA Region IX