



GARY E. JOHNSON
GOVERNOR

PSC 99
State of New Mexico
ENVIRONMENT DEPARTMENT
Hazardous and Radioactive Materials Bureau
2044 A Galisteo, P.O. Box 26110
Santa Fe, New Mexico 87502-6110
Telephone (505) 827-1567
Fax (505) 827-1544



PETER MAGGIORE
SECRETARY

PAUL R. RITZMA
DEPUTY SECRETARY

MEMORANDUM

TO: Greg Lewis, Division Director

FROM: Kirby Olson, Environmental Specialist
Hazardous and Radioactive Materials Bureau

RE: **Permit Modification for Groundwater Monitoring for Philips Semiconductor**

DATE: November 10, 1999

Since 1988 Philips Semiconductor has performed a quarterly analysis for all Appendix IX RCRA constituents on a series of groundwater monitoring wells located around their facility in north Albuquerque. These wells were installed to determine if hazardous constituents were migrating in groundwater from an old City of Albuquerque landfill that was in place on the property prior to the construction of the Philips facility. The landfill on the site was closed, covered, and vegetated in the mid-1960s.

When monitoring was initiated, tetrachloroethene was found in the groundwater at 30 ppb; six times the EPA MCL of 5 ppb. Since 1996, levels in the wells on-site have remained fairly constant at 7-10 ppb depending on the well. There has been very little variability in the readings for individual wells since that time. The only other constituents detected in these wells have been the occasional detection of low levels of barium, silver, and freon, all at levels well below any regulatory concern. In addition, Philips has submitted data demonstrating that there is no seasonal fluctuation in groundwater levels at this site.

The HSWA module of the RCRA permit for Philips Semiconductor allows the facility to request a modification of their groundwater sampling requirements after collecting 8 quarters of monitoring data. The facility has requested that their monitoring requirements for these wells be reduced so that they can take samples less frequently and analyze the samples only for VOCs (this group would include tetrachloroethene and its potential breakdown products).

RFI Work Plan, I believe the change in monitoring requirements is appropriate for the following reasons:

- Monitoring wells have shown similar levels for 12 quarters of monitoring
- There is no seasonal variation in groundwater elevation in these wells
- There has been no detection of PCE in water from the municipal production wells 1.5 miles downgradient of the facility
- Only PCE has been detected as exceeding standards in these wells
- Additional new wells (subject to quarterly monitoring) are being installed between the facility and downgradient wells
- Two wells extending deeper into the aquifer show similar levels to surface wells
- The facility is will be conducting a soil gas survey to determine if a source exists on-site

New wells installed downgradient from the have only been sampled once to date, but show levels of tetrachloroethene at less than one half the EPA MCL of 5 ppb.

Cc: