

PC005



PHILIPS

Philips Semiconductors

October 27, 2005

Philips Semiconductors, Inc.
9201 Pan American Freeway NE
Albuquerque, NM 87111

Mr. James P. Bearzi
Bureau Chief
New Mexico Environment Department Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303



Regarding: Request for a Class 3 Modification under 20.4.1.900 NMAC Incorporating 40 CFR 270.42 (c) To The Hazardous Waste Permit for Philips Semiconductors, Inc. (NMD000709782)

1. Philips Semiconductors, Inc. (Philips) is formally petitioning for a Class 3 Permit Modification per Section 20.4.1.900 of the New Mexico Administrative Code (NMAC) incorporating 40 CFR 270.42 (c) to advance the Solid Waste Management Unit (SWMU) #8, Former Coronado Municipal Landfill, to No Further Action (NFA) status. Since SWMU #8 is the only SWMU on the Hazardous and Solid Waste Amendments (HSWA) Corrective Action module of the Philips Semiconductors Resource Conservation and Recovery Act (RCRA) Hazardous Waste Management Facility Permit, advancing SWMU #8 to NFA status will also lead to termination of this permit.
2. This SWMU has met one of the criteria for NFA as defined in *HSWA/CA-Related Permit Modification Requests, No Further Action Proposals* (March 3, 1998). This NFA proposal is based upon the New Mexico Environment Department's (NMED) NFA Criterion 5: The SWMU has been characterized or remediated in accordance with current applicable State or Federal regulations, and the available data indicate that contaminants at SWMU #8, Former Coronado Municipal Landfill, pose an acceptable level of risk under current and projected future land use. Applicable information required by 20.4.1.900 NMAC incorporating 40 CFR 270.13 through 270.21, 40 CFR 270.62 and 40 CFR 270.63 is included in the approved Philips Semiconductors' RCRA Part B Permit.
3. Formal Notification was received from the New Mexico Environment Department (NMED) in a letter dated July 20, 2005 that SWMU #8, Former Coronado Municipal Landfill, may be suitable for NFA status. A copy of the notification letter is provided in Attachment 1 to this Request.

Philips Permit Modification Request Letter

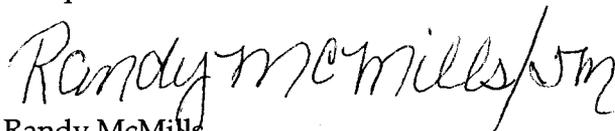
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4. Provided in Attachment 2 of this Request is the Draft Statement of Basis for the SWMU, which summarizes the history, investigative, and remedial actions that have been performed, and the results of the risk screening assessment.
5. A Public Notice of the Permit Modification will be published in the legal section of the *Albuquerque Journal* on October 27, 2005.
6. Copies of this request and supporting documents are available for public reading at the Cherry Hills Library, 6901 Barstow NE, Albuquerque, NM, 87113, (505) 857-8321 and the Taylor Ranch Library, 5700 Bogart NW, Albuquerque, NM 87120, (505) 897-8816. The 60-day public comment period begins on October 28, 2005 and ends on December 26, 2005.
7. Philips is required to hold a public meeting no later than 15 days before the close of the 60-day public comment period. A public presentation is scheduled for November 16, 2005 from 6:30 to 8:30 p.m. and will be held at TVI Workforce Training Center, Room 103, 5600 Eagle Rock Avenue NE, Albuquerque, New Mexico.

Please contact Bob Hamilton at (408) 474-9988 or Bob Sanders at (505) 822-7115 if you have questions regarding this request.

Philips Semiconductors



Randy McMills
Vice President
Regional Executive
North American Businesses

Att. 1: Official Notification that SWMU #8 is appropriate for NFA Petition

Att. 2: Draft Statement of Basis

Cc:

Bob Hamilton, Director of Health, Safety, and Security
Bob Sanders, Director of Security, Albuquerque Facility
Sharon Minchak, CH2M HILL



BILL RICHARDSON
GOVERNOR

State of New Mexico
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
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RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

July 20, 2005

Robert T. Sanders
Manager Security Department
Philips Semiconductor
9201 Pan American Freeway, NE, M/S 19
Albuquerque, NM 87113

**RE: RESPONSE TO NEW MEXICO ENVIRONMENT DEPARTMENT (SECOND)
REQUEST FOR SUPPLEMENTAL INFORMATION DATED SEPTEMBER 24,
2004 FOR RCRA FACILITY INVESTIGATION REPORT FOR CORRECTIVE
ACTION UNIT #8 (FORMER CORONADO MUNICIPAL LANDFILL)
(DATED FEBRUARY 2005) DATED MARCH 2005
PHILIPS SEMICONDUCTORS EPA ID #NMD00070982
TASK #HWB-PSC-03-001**

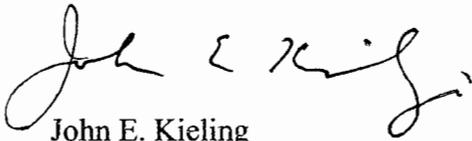
Dear Mr. Sanders:

The New Mexico Environment Department (NMED) has reviewed the subject report. Based on staff review, Philips Semiconductor (PSC) Corrective Action Unit #8 appears to be suitable for No Further Action petition. PSC must formally submit a petition requesting a Class 3 modification to its RCRA Permit. Class 3 modifications are those that substantially alter the facility or its operation thus, require public participation (40 CFR 270.42(d)(2)(iii)). The modification request must list the exact changes to be made to the permit, and must address all of the requirements of 40 CFR 270.42(c) as incorporated at 20.4.1.900 NMAC. Please note that there are public notice and public meeting requirements pursuant to these regulations.

Mr. Robert Sanders
July 20, 2005
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Should you have any questions please contact me, at (505) 428-2535, or William McDonald at (505) 284-5409.

Sincerely,



John E. Kieling
Manager
Permits Management Program

JEK:wsm

cc: J. Bearzi, NMED HWB
W. Moats, NMED HWB
W. McDonald, NMED HWB
L. King, EPA Region 6 (6PD-N)

File: Reading, PSC, HSWA; 05

Draft Statement of Basis

Philips Semiconductors Request for Approval of No Further Action for Solid Waste Management Unit #8, Former Coronado Municipal Landfill

(RCRA Permit No. NMD000709782)

October 2005

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ACRONYMS AND ABBREVIATIONS

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CML	Coronado Municipal Landfill
EPA	U.S. Environmental Protection Agency
ft	feet
HSWA	Hazardous and Solid Waste Amendments
MCL	Maximum Contaminant Level
µg/L	microgram per liter
NCLF	Nazareth/Coronado Landfill
NFA	no further action
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NMEID	New Mexico Environmental Improvement Division
PCE	tetrachloroethene
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
SSL	soil screening level
SVOC	semivolatile organic compound
SWMU	solid waste management unit
UST	underground storage tank
VOC	volatile organic compound

SWMU #8, Former Coronado Municipal Landfill, Albuquerque, NM

Location and Current Land Use

SWMU #8, Former Coronado Municipal Landfill (CML) is comprised of a former municipal landfill area. Figure 1 presents a site map and shows the SWMU location. The disturbed area associated with the CML covered approximately 60 acres in Township 11 North, Range 3 East, Section 12 of the Alameda Quadrangle and is bordered on the east by Interstate 25, to the north by Balloon Fiesta Parkway, to the south by Modesto Avenue, and to the west by San Mateo Boulevard.

The land was leased by the City of Albuquerque and operated as a municipal landfill that received solid waste from 1963 to 1965. The SWMU is located in the northeast portion of Albuquerque, NM on land that was purchased by the predecessor-in-interest corporation to Philips Semiconductors (Signetics Corporation) in 1981.

Projected Future Land Use

The land use in the immediate vicinity of SWMU #8 is urban/industrial. There is a residential area to the southwest of the site. The Philips Semiconductors production plant ceased operations in 2004 and will not re-open. Future use of the land will be dependant on the sale of the building and the nature of the future owner/occupants, although it is reasonable to expect that the land use will remain industrial/commercial. However, with regard to risk-based screening assessments that were conducted as part of the RCRA Facility Investigation (RFI) at the site, a residential land use scenario was used to consider the most restrictive possible land use.

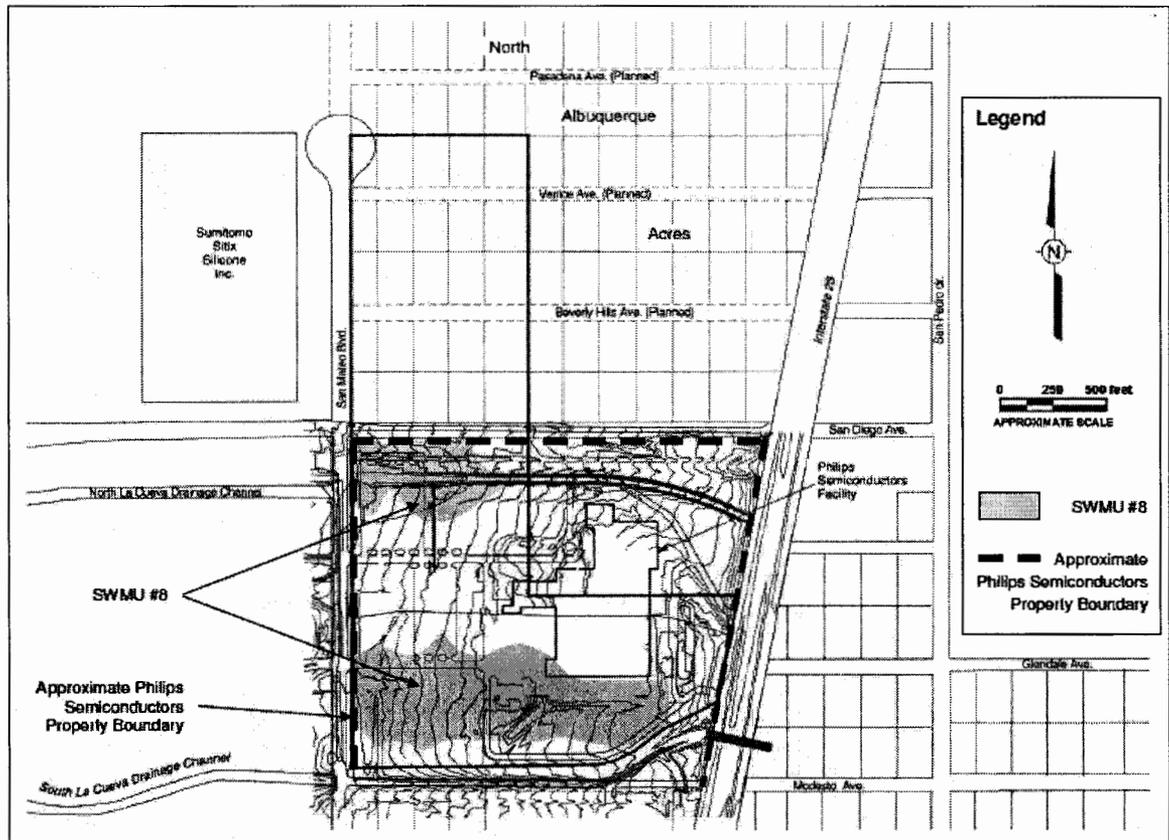
History

The former CML area was leased and operated by the City of Albuquerque as a municipal landfill between 1963 and 1965 (EMCON Associates, 1987). In 1980, the predecessor-in-interest corporation to Philips Semiconductors bought the property south of San Diego Avenue. Philips Semiconductors built and operated an industrial manufacturing facility on the property but never utilized or operated the former landfill area in any manner. In 1981, prior to constructing the manufacturing facility, material, including landfill waste, was excavated in preparation for the placing the facility foundation. The estimated volume of landfill material removed was 74,000 cubic yards (PRC, 1992). Philips Semiconductors closed the manufacturing facility in 2004 and no longer conducts any operations at the site. The manufacturing facility is currently for sale by Philips Semiconductors.

Evaluation of Relevant Information

Investigation History

During the excavation activities in 1981 to place the foundation for the Philips Semiconductors facility, landfill materials were encountered and removed. The reported contents of the landfill included typical domestic waste such as trees and grass clippings, bottles, cans, cardboard, newspapers, wood, brick debris, rags, and organic household garbage. Pockets of tires and numerous household water heaters were found as well as some gypsum board and concrete. No specific containers or materials that would be considered hazardous wastes were observed (ERCO, 1981).



**Philips Semiconductors Property Boundary
and Topography and Boundaries of SWMU #8
Philips Semiconductors Facility**

(Figure 1)

In 1987, EMCON Associates (EMCON) conducted a baseline investigation of groundwater underlying the Philips facility. The primary objective of this investigation was to establish the hydraulic gradient and direction of groundwater flow beneath the site, and evaluate the potential impact of fluids migrating from the landfill waste into the groundwater. Four monitoring wells were installed in and around the former CML areas located on the Philips Semiconductors' property (EMCON, 1987). During baseline sampling the primary compound of concern that was identified in the groundwater was the volatile organic compound (VOC) tetrachloroethene (PCE), detected in wells MW-1, MW-2, and MW-4. Concentrations of PCE continued to be reported in these same wells in subsequent sampling events. The compound PCE was not ever used by the Philips Semiconductors manufacturing facility or processes.

In 1992 the EPA Region 6 conducted a site inspection of the former CML and collected surface soil samples and groundwater samples. Four surface soil samples were collected from the portions of the former CML located on the Philips Semiconductors property (Fluor Daniel, 1993). No concentrations of PCE were detected in the soil samples. Concentrations of some semivolatile organic compounds (SVOCs) and pesticides were apparently detected at concentrations that would exceed current regulatory screening levels. However, it appears the sample locations and collection methods may not have provided representative samples. To address this issue, additional confirmatory samples

were collected in 2002. All sample results from the confirmatory sampling were below applicable screening levels.

In April 1996, Philips Semiconductors began collecting quarterly groundwater samples from MW-1, MW-2, MW-3, and MW-4 to fulfill the requirement of its RCRA Permit. As required by the permit, groundwater samples were initially analyzed for a very large suite of compounds referred to as the Appendix IX list of constituents. Philips continued to sample the monitoring wells quarterly for the full Appendix IX list until 1999 when the NMED authorized Philips to reduce the sampling to VOCs only and to reduce the sampling to an annual frequency.

During 1997, the City of Albuquerque began its own investigation of the former municipal landfills in the vicinity of the Philips Semiconductors site. The City of Albuquerque views its investigation as addressing both the Former Nazareth and Former Coronado Municipal Landfills. As part of that ongoing simultaneous investigation, the City installed a series of monitoring wells designated the Nazareth/Coronado Landfill (NCLF) wells. Most of the NCLF monitoring wells (NCLF-2 through -9) are installed on adjacent properties in the vicinity of the Philips site and have provided data applicable to the investigation of the former CML portions located on the Philips facility. Wells NCLF-2 through -6 were installed in October 1996, NCLF-7 and -8 were installed during the summer of 1999, and NCLF-9 was installed in September 1999. Some of the City of Albuquerque monitoring wells that have been installed are hydraulically upgradient of the Philips site relative to the groundwater flow direction. These wells contain detectable concentrations of PCE and indicate that the PCE seen in the monitoring wells on the Philips site is probably flowing onto the site from an upstream source.

Two additional groundwater monitoring wells were installed at the site by Philips Semiconductors in 2001 in an attempt to further delineate PCE concentrations in the groundwater contamination. Monitoring well MW-5 was installed adjacent to existing well MW-1 and was installed at a greater depth to assess the vertical extent of PCE concentrations that had been observed in well MW-1 since it was installed in 1987. Monitoring well MW-6 was installed to replace MW-3, which had gone dry. Soil sampling was conducted during drilling and no compounds of concern were detected in any samples. All investigation data were reported in the 2002 RFI report (CH2M HILL, 2002).

In December 1999, a soil vapor survey was conducted at the Philips site. A predetermined sampling grid was laid out overlying suspected areas of buried landfill material on portions of the Philips property and some of the other privately owned properties to the north. A total of 91 soil vapor samples were collected and analyzed. The soil vapor sample results did not reveal the presence of areas with substantial concentrations of VOCs in the soil vapor. These results suggested that there was not a large source of PCE in the remaining landfill materials buried on the property. All investigation data were reported in the 2002 RFI report (CH2M HILL, 2002).

On June 16, 2002, five confirmatory surface soil locations were collected at the Philips Semiconductors site to address the soil sample detections that had been found during the 1992 EPA site inspection. The soil samples were collected from holes that were hand dug to 8 inches in depth using a decontaminated stainless steel trowel. Soil from the 0- to 8-inch interval was collected and placed into sample containers. Samples were analyzed for pesticides and SVOCs to further evaluate the apparent detections indicated by the 1992 EPA site investigation. All investigation data were reported in the 2002 RFI report (CH2M HILL, 2002).

Investigation Conclusions

The investigations at SWMU #8, Former CML, located on the Philips Semiconductors site have determined that there has not been a significant release of compounds of concern from this SWMU to

the surface or subsurface soils. Based on the 2005 evaluation of the soil data from SWMU #8 the following conclusions can be made regarding the site soils:

- Soil investigations and investigation of landfill materials within the Former CML areas located on the Philips Semiconductors property have not indicated the presence of PCE and all detected compounds of concern in the soil have been compared to the appropriate NMED soil screening levels (SSLs) and do not pose unacceptable risk.
- Sampling that has been performed has addressed the expected compounds of concern at the site and adequately delineated the horizontal and vertical extent of these compounds.
- Using the NMED screening guidelines, the residential human health-based site screening has indicated compounds at the site do not pose an unacceptable risk to human health or the environment.
- Likewise there is no significant source of landfill gases or landfill waste that pose an unacceptable risk to human health or the environment.

As part of the RFI phases that have been performed by Philips Semiconductors, the presence of elevated PCE levels in the regional groundwater have been investigated and evaluated. Concentrations of PCE in the groundwater in excess of the EPA maximum contaminant level (MCL) of 5 micrograms per liter ($\mu\text{g/L}$) have been identified and continue to be detected in monitoring wells at the Philips site and in the City of Albuquerque monitoring wells located on properties in the area of the Philips site. However, based on the site investigations the following conclusions can be made:

- Philips Semiconductors' industrial operations never utilized PCE.
- Concentrations of PCE occur in the regional aquifer in monitoring wells located on the hydraulically upgradient side of the Philips' property and are found in other, farther upgradient wells located north of the Philips property.
- Based on the lack of an onsite source for PCE and the presence of PCE in upgradient wells it appears that the PCE present in the regional groundwater is associated with a separate upgradient source and is not related to SWMU #8 on the Philips property.

The NMED has concurred that the elevated PCE concentrations in the regional groundwater beneath and in the areas surrounding the Philips Semiconductors property are not related to Philips Semiconductors' operations or the portions of the Former CML that are located on the Philips' property.

Basis for Determination

In a letter dated July 20, 2005, the NMED's Hazardous Waste Bureau agreed that SWMU #8, Former Coronado Municipal Landfill is appropriate for No Further Action. This NFA proposal is based upon NMED's NFA Criterion 5: The SWMU has been characterized or remediated in accordance with current applicable State or Federal regulations, and the available data indicate that contaminants pose an acceptable level of risk under current and projected future land use.

References

CH2M HILL, 2002. *RCRA Facility Investigation Report, Corrective Action Unit #8*, CH2M HILL, Albuquerque, New Mexico.

EMCON Associates (EMCON), 1987. *Baseline Ground-Water Investigation, Signetics Corporation, Albuquerque, New Mexico*, EMCON Associates, San Jose, California.

Energy Resources Company (ERCO), 1981. *Detailed Evaluation of the Waste Fill, Albuquerque, New Mexico*, Energy Resources Company, Walnut Creek, California.

Fluor Daniel, 1993. *Revised Site Inspection Report for Coronado Landfill Site NMD980622708, WA # 25-6JZZ*, Fluor Daniel ARCS Team, Dallas, Texas.

PRC Environmental Management, Inc. (PRC), 1992. *RCRA Facility Assessment Report, Signetics Corporation, Albuquerque, New Mexico, NMD000709782*, PRC Environmental Management, Inc., Dallas, Texas.