

# **FACT SHEET / 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)**

**December 29, 2005**

---

## TABLE OF CONTENTS

A. Facility Description.....	1
B. History of Investigation .....	1
C. Administrative Record.....	2
D. No Further Action Criteria.....	3
E. Public Participation.....	4
F. Next Steps .....	5
G. Contact Person for Additional Information .....	5
H. Description of SWMU Proposed for NFA.....	5
SWMU #8, Former Coronado Municipal Landfill, Albuquerque, NM .....	5
Location and Current Land Use.....	5
Projected Future Land Use .....	5
History .....	6
Evaluation of Relevant Information .....	6
Basis for Determination.....	9
<b>References .....</b>	<b>9</b>

## LIST OF FIGURES

<b>Figure</b>	<b>Page</b>
1      Property Boundary and Topography of SWMU #8, Philips Semiconductors Facility..	2

## 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
HWMF	Hazardous Waste Management Facility
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
PSC	Philips Semiconductors
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

## **FACT SHEET/STATEMENT OF BASIS**

### **Proposal for No Further Action For Solid Waste Management Unit #8**

**(RCRA Permit No. NMD000709782)**

Under authority of the New Mexico Hazardous Waste Act (Section 74-4-1 et seq., NMSA 1978, as amended, 1992) and the New Mexico Hazardous Waste Management Regulations (20.4.1 NMAC), the New Mexico Environment Department (NMED) intends, pending public input, to approve a October 27, 2005, permit modification request to grant No Further Action (NFA) status for solid waste management unit (SWMU) #8 currently listed on the Hazardous and Solid Waste Amendments (HSWA) Corrective Action module of the Philips Semiconductors' (PSC's) *Resource Conservation and Recovery Act* (RCRA) Hazardous Waste Management Facility (HWMF) Permit (NMD000709782) issued to PSC on March 18, 1996. PSC ceased operations in 2004 and terminated its RCRA permit except for the HSWA Corrective Actions module which requires investigation of groundwater contamination and groundwater remediation, if necessary.

If approved, the proposed modification would grant NFA status for SWMU #8. SWMU #8 is the only SWMU listed on HSWA Corrective Action module of PSC's RCRA Permit. Therefore, the Class 3 Permit Modification, if approved, will also result in the termination of the HSWA Corrective Action module of PSC's RCRA Permit.

#### **A. Facility Description**

Philips Semiconductors is located in Albuquerque, Bernalillo County, New Mexico (Figure 1). The facility covers 62 acres on a high, arid mesa approximately 3 miles east of the Rio Grande. Much of the facility sits atop the former Coronado Municipal Landfill, a sanitary landfill operated by the City of Albuquerque from 1963 until 1965 for which landfill disposal records were not kept. PSC purchased the site in 1980, obtained a HWMF Permit in 1986, and manufactured computer chips until operations ceased in 2004.

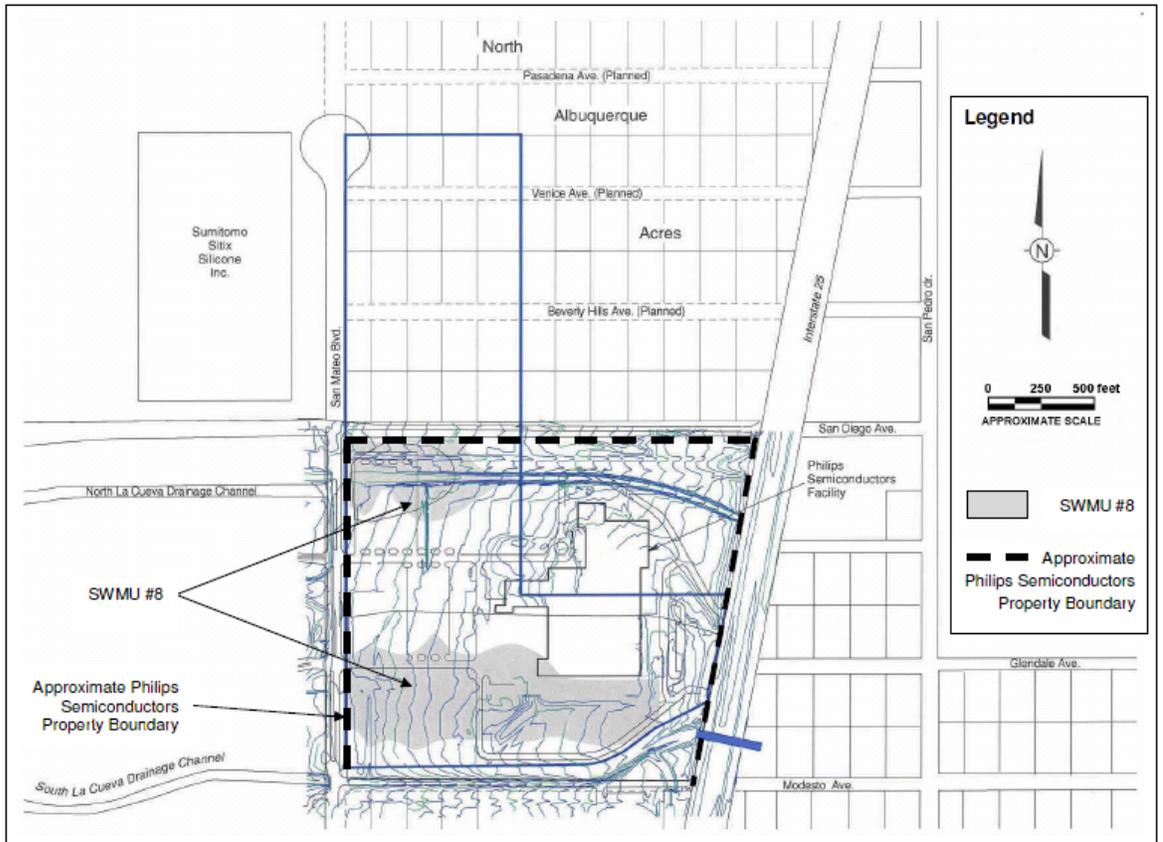
#### **B. History of Investigation**

The U.S. Environmental Protection Agency (EPA) and New Mexico Environmental Improvement Division (NMEID -- now known as the New Mexico Environment Department [NMED]) jointly issued PSC's Hazardous Waste Permit in April 1986. The permit was renewed and reissued again in March 1996. The HSWA Module requires PSC to determine whether or not there have been any releases of hazardous waste from any SWMU and to take appropriate corrective measures for any such releases. On January 2, 1996, the NMED

PSC Statement of Basis

received authorization from the EPA for corrective action under the HSWA and became the administrative authority for this action.

This Statement of Basis describes the SWMU that was identified as “appearing to be suitable for No Further Action.” If PSC’s request for a permit modification is approved by NMED, SWMU #8, former Coronado Municipal Landfill, will be approved for no further action and PSC’s HSWA Module will be terminated.



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

Figure 1. Philips Semiconductors Facility

**C. Administrative Record**

The Administrative Record for this proposed action consists of the PSC Permit Modification Request, the Fact Sheet / Statement of Basis, the Public Notice, and the referenced supporting documentation for SWMU #8. The complete Administrative Record may be reviewed at the following location during the public comment period:

NMED – Hazardous Waste Bureau

PSC Statement of Basis  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303  
(505) 428-2500  
Monday - Friday from 8:00 a.m. to 5:00 p.m.

The PSC Permit Modification Request, the Fact Sheet / Statement of Basis, and the Public Notice may be reviewed at the following locations during the public comment period:

NMED District 1 Albuquerque Office  
5500 San Antonio NE  
Albuquerque, NM 87109  
(505) 222-9500  
*Monday-Friday 8:00 a.m. to 5:00 p.m.*

Government Information Department  
Zimmerman Library  
University of New Mexico  
Albuquerque, NM 87131  
(505) 277-5441

A copy of the Fact Sheet / Statement of Basis and the Public Notice are also available on the NMED website at: [www.nmenv.state.nm.us/HWB/pscperm.html](http://www.nmenv.state.nm.us/HWB/pscperm.html). To obtain a copy of the Administrative Record or a portion thereof, in addition to further information please contact Ms. Pam Allen at (505) 428-2531, or at the address given above. NMED will provide copies, or portions thereof, of the administrative record at a cost to the requestor.

#### **D. No Further Action Criteria**

The NFA determination has been based upon one of the five NFA Criteria provided by NMED (Section II.B.4.a (4)(b), Page 1, 3 March 1998). These criteria are:

1. The SWMU cannot be located, does not exist, or is a duplicate SWMU.
2. The SWMU has never been used for the management (i.e., generation, treatment, storage, and/or disposal) of RCRA solid waste or hazardous wastes and/or constituents or other Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) hazardous substances.
3. No release to the environment has occurred or is likely to occur in the future from the SWMU.
4. A release from the SWMU to the environment occurred, but the SWMU was characterized and/or remediated under another authority (such as the NMED's Underground Storage Tank [UST] or Groundwater Quality Bureaus), which adequately addressed RCRA corrective action and documentation, such as a closure letter, is available.
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.

Section I below briefly describes the location, history, evaluations of relevant information, and the basis for determination for SWMU #8 being proposed for NFA.

#### **E. Public Participation**

#### PSC Statement of Basis

PSC issued a Public Notice on October 27, 2005, informing the public that a petition has been submitted to NMED requesting no further action status for SWMU #8, former Coronado Municipal Landfill. The Public Notice specified that PSC will accept comments on the petition during the 60-day comment period, ending December 26, 2005. The Notice also stated that information on the SWMU would be presented in a public meeting on November 16, 2005.

Six people representing PSC and NMED attended a public meeting arranged by PSC on November 16, 2005, at the TVI Workforce Training Center. No members of the public or other government agencies attended. Prior to or subsequent to the meeting, no written comments were submitted to the NMED.

NMED issued a public notice on **December 29, 2005**, to announce the beginning of a 45-day comment period that will end at **5:00 p.m., February 13, 2006**. Any person who wishes to comment on this action or request a public hearing should submit written or electronic mail (e-mail) comment(s) with the commenter's name and address to the respective address below. Only comments and/or requests received on or before **5:00 p.m., February 13, 2006** will be considered.

John E. Kieling, Program Manager  
NMED - Hazardous Waste Bureau  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, NM 87505-6303  
E-mail: john.kieling@state.nm.us  
Ref: PSC – NFAs (December 28, 2005)

Written comments must be based on the administrative record. Documents in the administrative record need not be re-submitted if expressly referenced by the commenter. Requests for a public hearing shall provide: (1) a clear and concise factual statement of the nature and scope of the interest of the person requesting the hearing; (2) the name and address of all persons whom the requestor represents; (3) a statement of any objections to the proposed action, including specific references; and (4) a statement of the issues which such persons proposes to raise for consideration at the hearing. Written comment and requests for Public Hearing must be filed with Mr. John Kieling on or before **5:00 p.m., February 13, 2006** at NMED Hazardous Waste Bureau, 2905 Rodeo Park Drive East, Building 1, Santa Fe, New Mexico, 87505-6303. The NMED will provide a thirty (30) day notice of a public hearing, if scheduled.

#### **F. Next Steps**

All written comments submitted on the proposed Permit modification will become part of the administrative record and will be considered in formulating a final decision. NMED will respond in writing to all significant public comment. This response will also be posted on the NMED website in addition to notifying all persons providing written comments.

## PSC Statement of Basis

The NMED will notify PSC, each person on the facility mailing list, and each person who made a public comment of the final decision. The final decision will become effective 30 days after service of the decision unless a later date is specified or a review is requested under the New Mexico Hazardous Waste Management Regulations, 20.4.1.900 New Mexico Administrative Code.

## G. Contact Person for Additional Information

For additional information, contact the following individual:

Mr. William McDonald  
New Mexico Environment Department  
c/o Sandia National Laboratories  
P. O. Box 5800/MS 1089  
Albuquerque, NM 87185  
Email: wsmcdon@sandia.gov  
Telephone: (505) 284-5409  
Fax: (505) 284-2616

Mr. John E. Kieling  
Program Manager  
NMED – Hazardous Waste Bureau  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303  
E-mail: john.kieling@state.nm.us  
Telephone: (505) 428-2500  
Fax: (505) 428-2567

## H. Description of SWMU Proposed for NFA: SWMU #8

### Location and Current Land Use

SWMU #8, Former Coronado Municipal Landfill (CML) is 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. Current land use is industrial/commercial.

### Projected Future Land Use

Land use in the immediate vicinity of SWMU #8 is urban/industrial. There is a residential area to the southwest of the site. The PSC 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 PSC (Signetics Corporation) bought the property south of San Diego Avenue. PSC 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

## PSC Statement of Basis

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). PSC closed the manufacturing facility in 2004 and no longer conducts any operations at the site. The manufacturing facility is currently for sale by PSC.

## Evaluation of Relevant Information

### *Investigation History*

During the excavation activities in 1981 to place the foundation for the PSC 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).

In 1987, EMCON Associates (EMCON) conducted a baseline investigation of groundwater underlying the PSC 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 PSC 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 PSC 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 PSC 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, PSC 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. PSC continued to sample the monitoring wells quarterly for the full Appendix IX list until 1999 when the NMED authorized PSC to reduce the sampling to VOCs only and to reduce the sampling to an annual frequency.

## PSC Statement of Basis

During 1997, the City of Albuquerque began its own investigation of the former municipal landfills in the vicinity of the PSC 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 PSC site and have provided data applicable to the investigation of the former CML portions located on the PSC 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 are hydraulically upgradient of the PSC 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 PSC site is probably flowing onto the site from an upstream source.

Two additional groundwater monitoring wells were installed at the site by PSC 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 PSC site. A predetermined sampling grid was laid out over suspected areas of buried landfill material on portions of the PSC 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. 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 PSC 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 PSC site have determined that there has not been a significant release of compounds of concern from this SWMU to

### PSC Statement of Basis

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 investigations and investigation of landfill materials within the Former CML areas located on the PSC 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 PSC, 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 PSC site and in the City of Albuquerque monitoring wells located on properties in the area of the PSC site. However, based on the site investigations the following conclusions can be made.

- PSC's industrial operations never utilized PCE.
- Concentrations of PCE occur in the regional aquifer in monitoring wells located on the hydraulically upgradient side of the PSC property and are found in other, farther upgradient wells located north of the PSC 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 PSC property. (The NMED concurs that the PCE in the regional groundwater beneath and in the areas surrounding the PSC property is not related to PSC operations or the portions of the Former CML that are located on the PSC' 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.

PSC Statement of Basis

**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.