



UNITES STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION III

STATEMENT OF BASIS

FORMER ALLEGRO MICROSYSTEMS, INC.
WILLOW GROVE, PENNSYLVANIA
EPA ID #: PAD00765800

Table of Contents

Section 1: Introduction.....	2
Section 2: Facility Background.....	2
Section 3: Summary of Environmental Investigation	3
Section 4: Environmental Indicators	4
Section 5: Public Participation.....	4
Index to Administrative Record.....	6
Attachment A: Figure 1-2, Facility Map	

List of Acronyms

AR	Administrative Record
AST	Aboveground Storage Tank
COC	Contaminant of Concern
EI	Environmental Indicator
EPA	Environmental Protection Agency
MCL	Maximum Contaminant Level
PADEP	Pennsylvania Department of Environmental Protection
PAH	Polycyclic aromatic hydrocarbon
RCRA	Resource Conservation and Recovery Act
SB	Statement of Basis
SWMU	Solid Waste Management Unit
SHS	Statewide Health Standard
WWTP	Wastewater Treatment Plant
UST	Underground Storage Tank

Section 1: Introduction

The United States Environmental Protection Agency (EPA) has prepared this Statement of Basis (SB) in accordance with the Corrective Action Program to solicit public comment on its proposed decision for the former Allegro Microsystems, Inc. (Allegro) facility located at 3900 Welsh Road, Willow Grove, Pennsylvania (Facility). EPA's review of available information indicates that there are no unaddressed releases of hazardous waste or hazardous constituents from the Facility. Based on that assessment, EPA is proposing no further corrective action and land use controls are necessary at this time at the Facility. EPA has determined that its proposed decision is protective of human health and the environment. This SB highlights key information relied upon by EPA in making its proposed decision.

The Facility is subject to EPA's Corrective Action Program under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, and the Hazardous and Solid Waste Amendments (HSWA) of 1984, 42 U.S.C. §§ 6901 et seq. (Corrective Action Program). The Corrective Action Program is designed to ensure that certain facilities subject to RCRA have investigated and cleaned up any releases of hazardous waste and hazardous constituents that have occurred at their property. The Commonwealth of Pennsylvania (the Commonwealth) is not authorized for the Corrective Action program under Section 3006 of RCRA. Therefore, EPA retains primary authority in the Commonwealth for the Corrective Action Program.

The Administrative Record (AR) for the Facility contains all documents on which EPA's proposed decision is based. The Index to the AR is found at the end of the SB. See Section 5, Public Participation, for information on how you may review the documents contained in the AR and submit any comments you may have concerning EPA's proposed decision for the Facility. Information on the Corrective Action Program as well as a fact sheet for the Facility can be found by navigating through the EPA website <http://www.epa.gov/reg3wcmd/correctiveaction.htm>.

Section 2: Facility Background

The former Allegro facility occupied approximately 30 acres located in Willow Grove, PA. Much of the former property (approximately 60%) was open landscape and asphalt-paved areas that included parking lots and access roadways. Approximately 40% of the former property was used for manufacturing and product distribution. The operations structures consisted of a large single-story building, a pump house, the wastewater treatment plant (WWTP) and a small stone shed. A detailed layout of the former Allegro facility is presented in Figure 1.

From 1990-2001, Allegro manufactured large-scale integrated circuits used in various applications such as automobile ABS systems, smoke detectors, computer memories, space and telecommunications hardware, oil exploration, and battery operated devices. The circuits were processed on the surfaces of polished silicon wafers. The wafers were mass-produced using photolithography techniques, high temperature heat treatments, and chemical etching.

In October 2001, Allegro discontinued operations and commenced decommissioning of the facility. In September 2002, Allegro sold the property to a commercial developer who redeveloped the former facility into its current usage as a shopping center that includes a Walmart Supercenter and several big box retailers.

Section 3: Summary of Environmental Investigation

From 2003 to 2005 and under the supervision of the Pennsylvania Department of Environmental Protection (PADEP), Allegro completed the investigation and remediation of the property in accordance with the PADEP Land Recycling and Environmental Remediation Standards Act (Act 2), which provides environmental cleanup liability protection to current and future owners of the property. The Pennsylvania Statewide Health Standards (SHS), which are equivalent to the EPA residential standards and deemed protective of public health, were applied to the investigation and remediation.

The investigation evaluated six areas of concern (AOCs) at the Facility that potentially posed an environmental concern. The six AOCs comprised of four solid waste management units (SWMUs), one aboveground storage tank (AST) and one underground storage tank (UST). PADEP oversaw and certified the closures of the SWMUs, AST and UST in 2003.

In addition to the closure of the aforementioned units, a site characterization was conducted to determine the potential environmental impacts within, or immediately adjacent to the property that may result from past operations. The site characterization consisted of a site-wide groundwater monitoring and surface and subsurface soil samples for the constituents of concern (COCs) that consisted of heavy metals, polycyclic aromatic hydrocarbons (PAHs), and volatile organic compounds (VOCs). The investigation concluded that the soil results for the COCs were below the SHS and do not pose an unacceptable risk to human health. Furthermore and with the exception of the element barium, groundwater results for the COCs were also below the SHS.

Allegro never used barium or its related compounds in any of their industrial processes. However, barium was detected at various levels throughout the property. Barium exceedances above the SHS of 2000 mg/L were detected in five of the twenty-four monitoring wells and twelve temporary well points. The exceedances range from 2,400 mg/L to 7,000 mg/L. The barium exceedances in groundwater are localized in the shallow aquifer and are confined within a one acre area located in the southeastern quadrant of the Facility. Groundwater flow in this area of the Facility discharges to the unnamed tributary. In utilizing a mass-balance water quality analysis model (PENTOXSD model) to evaluate diffuse groundwater discharge to surface water, PADEP determined that the barium levels in groundwater do not adversely impact the unnamed tributary. The investigation did not identify any potential sources for the barium in groundwater. Therefore, PADEP concluded that the barium detections in groundwater are naturally occurring in nature.

The former Facility has since been redeveloped into a shopping center that includes a Walmart Supercenter and several big box retailers. The property is zoned for non-residential use

and will remain non-residential for the foreseeable future. A deed restriction on the property prohibits the use of onsite groundwater for any purposes and therefore, prevents direct human exposures to barium. Historic groundwater results confirm that the elevated barium levels in groundwater are stabilized within the one acre area. The barium levels in groundwater do not adversely impact the surrounding environment.

Section 4: Environmental Indicators

EPA sets national goals to measure progress toward meeting the nation's major environmental goals. For Corrective Action, EPA evaluates two key environmental indicators for each facility: (1) current human exposures under control and (2) migration of contaminated groundwater under control. EPA has determined that the Facility met these indicators (i.e., there is no contamination problem that creates an unacceptable risk to human health nor is there any evidence of adverse groundwater contamination impact to the environment) on August 3, 2011.

Section 5: Public Participation

Before EPA makes a final decision on its proposal for the Facility, the public may participate in the decision process by reviewing this SB and documents contained in the Administrative Record (AR) for the Facility. The AR contains all information considered by EPA in reaching this proposed decision. It is available for public review during normal business hours at:

U.S. EPA Region III
1650 Arch Street
Philadelphia, PA 19103
Contact: Khai M. Dao
Phone: (215) 814-5467
Fax: (215) 814-3113
Email: dao.khai@epa.gov

Interested parties are encouraged to review the AR and comment on EPA's proposed decision. The public comment period will last thirty (30) calendar days from the date that notice is published in a local newspaper. You may submit comments by mail, fax, or e-mail to Khai M. Dao. EPA will hold a public meeting to discuss this proposed decision upon request. Requests for a public meeting should be made to Khai M. Dao.

EPA will respond to all relevant comments received during the comment period. If EPA determines that new information warrant a modification to the proposed decision, EPA will modify the proposed decision or select other alternatives based on such new information and/or public comments. EPA will announce its final decision and explain the rationale for any changes in a document entitled the Final Decision and Response to Comments (FDRTC). All persons who comment on this proposed decision will receive a copy of the FDRTC. Others may obtain a copy by contacting Khai M. Dao at the address listed above.

7.30.13

Date



John A. Armstead, Director
Land and Chemicals Division
US EPA, Region III

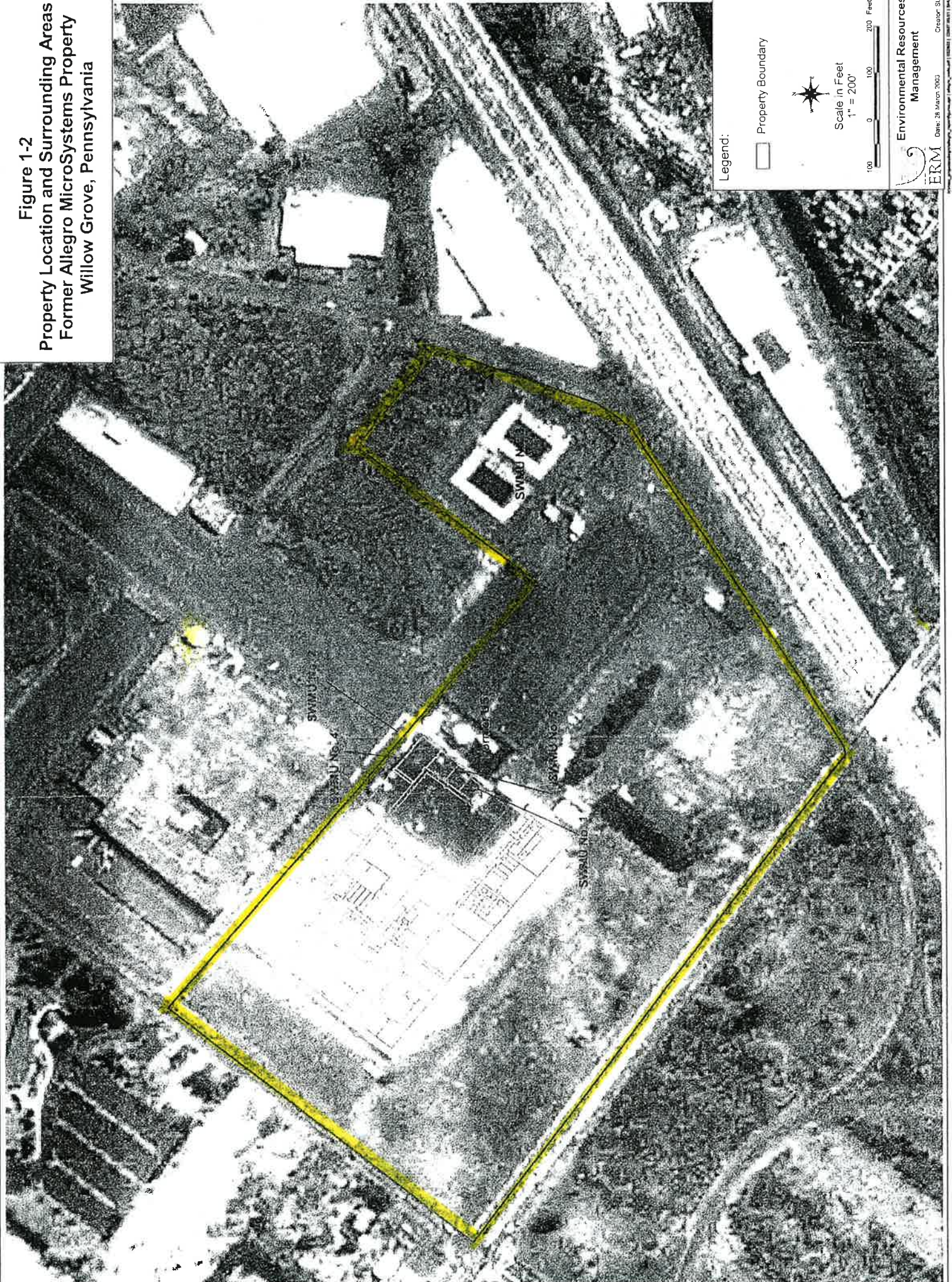
Index to Administrative Record

Act 2 Site Characterization/Final Report, Allegro Microsystems, Inc., Willow Grove, PA prepared by Environmental Resource Management, September 2003.

Act 2 Streamlined Remedial Investigation/Final Report, Allegro Microsystems, Inc., Willow Grove, PA prepared by Environmental Resource Management, December 2004.

Act 2 Remedial Investigation/Final Report, Allegro Microsystems, Inc., Willow Grove, PA prepared by Environmental Resource Management, January 2005.

Figure 1-2
Property Location and Surrounding Areas
Former Allegro MicroSystems Property
Willow Grove, Pennsylvania



Legend:

□ Property Boundary



Scale in Feet
1" = 200'

0 100 200 Feet

ERM
Environmental Resources
Management

Date: 28 March 2003
Cedar St.
1000