

Site Review and Update

BMI TEXTRON

LAKE PARK, PALM BEACH COUNTY, FLORIDA

CERCLIS NO. FLD052172954

MARCH 30, 1998

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Agency for Toxic Substances and Disease Registry
Division of Health Assessment and Consultation
Atlanta, Georgia 30333

Site Review and Update: A Note of Explanation

The purpose of the Site Review and Update is to discuss the current status of a hazardous waste site and to identify future ATSDR activities planned for the site. The SRU is generally reserved to update activities for those sites for which public health assessments have been previously prepared (it is not intended to be an addendum to a public health assessment). The SRU, in conjunction with the ATSDR Site Ranking Scheme, will be used to determine relative priorities for future ATSDR public health actions.

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Prepared by:

Bureau of Environmental Toxicology
The Florida Department of Health
Under a Cooperative Agreement with the
Agency for Toxic Substances and Disease Registry

Summary of Background and History

This Site Review and Update report summarizes site activities since the 1991 Public Health Assessment report and reevaluates the public health threat. The 3.4 acre BMI- Textron site is located at 1121 Silver Beach Road, in Lake Park, Palm Beach County, Florida (see Figure 1). Between 1969 and 1986, Basic Microelectronics Inc. (BMI) manufactured printed circuit boards. In 1981, BMI sold the site to Textron (EPA 1990). BMI-Textron disposed liquid wastes containing cyanide and other contaminants in on-site percolation ponds and drain fields (EPA 1997). Since 1984, BMI-Textron has removed contaminated soil and monitored the groundwater (EPA 1990).

The site is in an industrial area with other light industrial businesses and warehouses. The immediate area is paved or covered with buildings. A residential area is south and east of the site (Figure 2; EPA 1997). Storm water flows south and groundwater flows east-northeast from the site (EPA 1994). There are no private drinking water wells near the site. The closest drinking water well is a municipal well 3,550 feet north-northwest and hydraulically up gradient of the site. Another municipal well is 4,800 feet south and hydraulically down gradient of the site (Geraghty and Miller 1993).

In 1984, the Florida Department of Environmental Protection (DEP; formerly known as the Department of Environmental Regulation) found cyanide contaminated soil and groundwater near the percolation pond. Under a consent agreement with DEP, BMI installed groundwater monitoring wells and removed 680 cubic yards of contaminated soil (EPA 1997; EPA 1990). In 1986, DEP found cyanide and fluoride in groundwater (EPA 1990). In 1990, under a second consent agreement, BMI began to remove 206 cubic yards of chromium and cyanide contaminated soil from the percolation pond (EPA 1997).

In 1988, the Environmental Protection Agency (EPA) conducted a site screening inspection. On June 24, 1988, they proposed the site to the National Priorities List (NPL; RTK NET 1997). On August 30, 1990, the EPA listed the site on the NPL (EPA 1997).

In December 1991, the Florida Department of Health (FL DOH; formerly known as the Department of Health and Rehabilitative Services), under a cooperative agreement with the Agency for Toxic Substances and Disease Registry, completed a Public Health Assessment report. FL DOH concluded the site was an indeterminate public health hazard due to limited environmental data. The data did not show people contacted the contaminants in the past; however, the assessment concluded that ingestion, inhalation and dermal exposure to contaminated groundwater could occur in the future. FL DOH recommended additional groundwater and soil sampling near the percolation ponds, an investigation into groundwater flow and a private well survey (FL HRS 1991).

In August 1994, under a consent agreement with EPA, BMI completed the Remedial Investigation / Feasibility Study (RI/FS) and Baseline Risk Assessment (BRA). They found groundwater contaminated with arsenic, cyanide, fluoride and sodium under the site. Contamination had not migrated off site and they do not expect it to migrate off site in the future due to natural subsurface attenuation. They conducted a well survey within 1,000 feet of the site and did not find any private drinking water wells. They determined groundwater flow is northeast from the site. BMI removed subsurface soil contamination during previous cleanup activities. They did not investigate surface soil contamination because the entire site is paved. The Baseline Risk Assessment showed previous removal actions eliminated the principal threat at the site (EPA 1994).

Current Conditions

In their August 1994 Record of Decision (ROD), EPA described the remedial actions planned for the site. They recommended quarterly groundwater monitoring for arsenic, cyanide, fluoride and sodium for one year then annual groundwater monitoring for two years (EPA 1994). The on-site groundwater monitoring results, thus far, show contamination is diminishing (See Table 1; J. Keen, DEP, Personal Communication, August 3, 1997). The groundwater monitoring has not detected off-site contamination or arsenic in any monitoring wells. They will monitor groundwater at least one more time (J. Keen, DEP, Personal Communication, August 3, 1997). EPA is in the process of removing the site from the NPL (RTK NET 1997).

Table 1
Maximum Reported Levels in On-Site Groundwater (mg/L)

Date of sampling data	Cyanide	Sodium	Fluoride
January 17, 1996	1.40	200	5.9
July 30, 1996	0.52	190	3.7
January 1, 1997	0.44	160	4.7
July 1, 1997	0.37	140	4.1

mg/L = milligram contaminant per liter of water

Site Visit

On February 19, 1996, Randy Merchant and Julie Smith of Florida Department of Health, Bureau of Environmental Toxicology visited the site. They observed active industrial businesses next to the site. A locked chain link fence and grass-covered drainage swales surround the site. The Lil People Day Care center is 750 feet

northeast of site in the residential neighborhood. Another Day Care center is about 1,000 feet northeast the site. The site has not changed since the 1990 Public Health Assessment report.

Current Issues

The 1991 Public Health Assessment report recommended further sampling for the contaminated groundwater and soil, a well survey, and further investigations on groundwater flow. EPA and BMI implemented our recommendations during the RI/FS (EPA 1994). The EPA held two public meetings in 1993 and 1994 to address community concerns and answer questions about the RI/FS and ROD. The community did not have any outstanding health concerns (EPA 1994).

Cleanup activities and attenuation have reduced exposure to contaminated groundwater and soil. Present cyanide contamination is below ATSDR's screening levels for drinking water (0.5 mg/L; Intermediate Environmental Media Evaluation Guides (EMEG) for a child's exposure). An intermediate exposure screening value is appropriate since contamination has not spread off site thus eliminating potential chronic exposure. Present fluoride contamination is about the same as Florida's nonspecific water standard and EPA's Maximum Contaminant Level Goal (4.0 mg/L). Present sodium contamination is below Florida's Maximum Contaminant Level (160 mg/L).

Conclusions and Recommendations

The EPA and BMI followed our 1991 Public Health Assessment report recommendations. Site cleanup activities and attenuation reduced potential human exposure. BMI did not find any private wells near the site and groundwater contamination is contained on site. The BMI site poses no apparent threat to public health from groundwater at this time. Therefore, we recommend no further site health assessment activities (i.e., a public health assessment or health consultation). FL DOH will review any new data that becomes available in the future.

Preparer of Report

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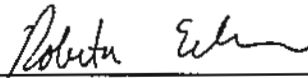
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CERTIFICATION

This Site Review and Update for BMI-Extron was prepared by the Florida Department of Health under a cooperative agreement with the Agency for Toxic Substances and Disease Registry (ATSDR). It is in accordance with approved methodology and procedures existing at the time the health consultation was begun.



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The Division of Health Assessment and Consultation, ATSDR, has reviewed this health consultation, and concurs with its findings.



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Appendix

Figure 1



Figure 2

