

Executive Summary

Two nearby Superfund sites in southeast Florida – the BMI-Extron and Trans Circuits, Inc. sites – are now models of environmental protection and reuse. Parts manufacturing for electronic circuit boards left both areas contaminated, underused and in need of restoration. To make cleanup and reuse happen, the U.S. Environmental Protection Agency (EPA) and the Florida Department of Environmental Protection (FDEP) worked with site owners, a responsible party and interested businesses. Project priorities included making sure site businesses could remain open during cleanup, designing remedies compatible with ongoing and potential future site uses, and addressing liability concerns.

Today, new and long-time commercial and light industrial facilities are open for business at both sites. Businesses include a cabinet and countertop manufacturer, cleaning, carpentry, electrical, flooring, and heating and cooling companies, and a custom fireplace sales and construction firm. Florida Aero Precision, a manufacturer of aircraft engine and turbine parts, also operates facilities on both sites. This case study explores the cleanup, continued use and reuse of both areas, illustrating the opportunities and beneficial effects of Superfund redevelopment in action.

Beneficial Effects

- Site businesses employ over 90 people, providing annual employment income of about \$4.8 million to the local community.
- Eight commercial and light industrial businesses are currently active at the sites.
- In 2013, site properties generated over \$87,000 in tax revenues and have an estimated value of \$2.6 million.
- In 2013, on-site business sales reached \$11.6 million.

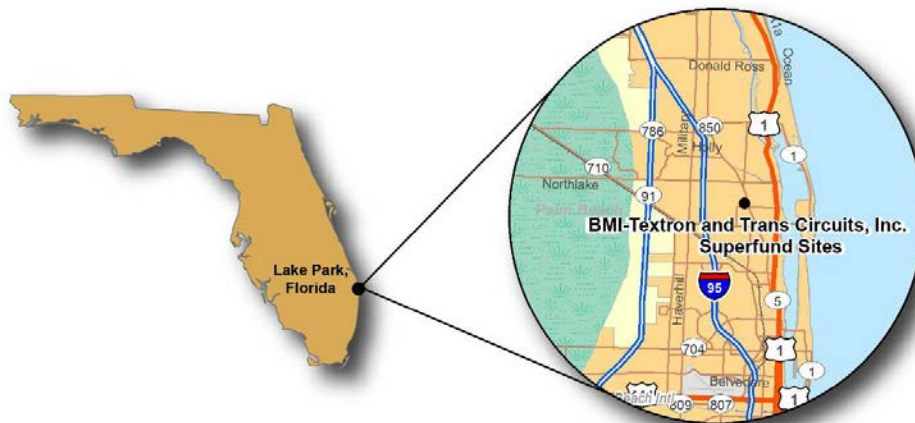


Figure 1: The sites' location in Lake Park, Palm Beach County, Florida.

Introduction

When a Superfund site is returned to productive use, it can revitalize a local economy with jobs, new businesses, tax revenues and spending. This case study captures the beneficial effects of the new and continued use of both the BMI-Textron and Trans Circuits, Inc. Superfund sites, both on-site and in the community.

The two sites are located across the street from each other in the Tri-City Industrial Park in Lake Park, Florida, just north of West Palm Beach (Figure 1). The 1.2-acre Trans Circuits, Inc. site is just north of the 3.1-acre BMI- Textron site. Newman Road separates the two properties. Commercial and light industrial facilities surround the sites to the north and west. A residential area is located to the south. An automotive salvage yard, repair shops, warehouses and industrial facilities border the sites to the west (Figure 6). According to 2012 Census data estimates, about 8,314 people live in Lake Park.

Site History

While BMI-Textron and Trans Circuits, Inc. are separate sites, they share a similar industrial history. Basic Microelectronics, Inc. (BMI) began manufacturing operations in Lake Park in 1969. Textron Inc. acquired BMI in January 1981 and began operating at the site as BMI- Textron. The business made chromium-backed glass plates used in the production of electronic components. Liquid waste containing cyanide was disposed of through percolation ponds and drain fields, resulting in the contamination of soil and ground water with arsenic, sodium, cyanide and fluoride. The business closed in early 1986.



Figure 2. Former location of the wastewater pond at the Trans Circuits, Inc. site.

An electroplating business operated at what is now known as the Trans Circuits, Inc. site from 1976 until 1978, when Trans Circuits, Inc. purchased the property. Facility operations included metals stripping, etching, metals plating and component manufacturing for electronic circuit boards. The business used solvents and stripping solutions containing lead, tin, copper, nickel, fluoride and cyanide. In June 1985, the company closed down and dismantled its facility. The company disposed of liquid waste in a wastewater pond and stored waste drums on site, resulting in contamination of soil and ground water with polycyclic aromatic hydrocarbons (PAHs) and volatile organic compounds (VOCs).

After investigations confirmed the contamination, EPA placed each site on the Superfund program's National Priorities List (NPL). EPA listed the BMI- Textron site on the NPL in August 1990 and the Trans Circuits, Inc. site on the NPL in February 2000.

Site Cleanup

BMI-Textron

Cooperation and open communication among EPA, BMI-Textron, the site's potentially responsible party (PRP), and other site business owners allowed on-site businesses to remain open during cleanup. BMI-Textron started cleaning up soil contamination in 1984 and 1990. These early efforts included digging up contaminated soil, filling in an excavated area with clean soil and capping the area with asphalt. EPA and FDEP provided oversight.

The site's location in an established industrial area began attracting businesses to the site. Following the closure of BMI-Textron operations in early 1986, Florida Aero Precision, an aerospace parts and turbine components manufacturer, purchased a half-acre parcel located in the northeastern corner of the site. Florida Aero Precision began production operations at the site in late 1986. Two other businesses, Fireside Distributors and Global Electric, opened facilities on site in 1987.

Carefully considering current and potential future site uses, EPA selected a cleanup plan to address remaining contamination in 1994. EPA chose monitored natural attenuation to address contaminated ground water. Cleanup also included securing the site with a fence and locked gate, and maintaining water use restrictions to protect the public from exposure to contaminated ground water. BMI-Textron finished all required cleanup activities by August 1994, when EPA issued the site's closeout report marking the successful completion of the site's cleanup. EPA deleted the site from the NPL in 2002.

EPA, BMI-Textron and the other property owners worked together to make sure cleanup would protect public health and the environment. On-site businesses granted BMI-Textron, the PRP, access to all site monitoring wells for sampling and well maintenance as needed. They also agreed to abide by ground water use restrictions and maintain locking gates around their properties to restrict access to wells and the capped area. EPA also worked closely with BMI-Textron, other site property owners and the community throughout the cleanup to share information and make sure all reuse ideas were on the table.

Trans Circuits, Inc.

After placing the site on the NPL in 2000, EPA began investigating the site and evaluating cleanup options. Over time, high demand for developable land in the area began to draw attention to the property for its reuse potential. In an area with limited land available for commercial and industrial development, the site's location in an established business park made it attractive to developers and business owners looking for expansion opportunities. The National Land Company purchased the site in 2000. EPA developed a Prospective Purchaser Agreement (PPA) and a Covenant Not to Sue to address the company's liability concerns. The covenant states that owners will use the property appropriately, in ways that ensure the protectiveness of the remedy. With these documents in place, the stage was set for redevelopment. The site was first home to Concept Eco, Inc., a marketer of recycled-content clothing and other products. The company started leasing the existing building on the site property in 2001 and purchased it in mid-2004.



Figure 3. Replacement of the public water supply well at the Trans Circuits, Inc. site.

Unable to identify a responsible party for the contamination, EPA led investigation and cleanup activities in cooperation with FDEP. EPA selected a cleanup plan to address contamination at the site in 2001 and revised it in 2010. The plan included removal of contaminated surface soil, ground water treatment, restriction of land and ground water uses, and replacement of a public well. Soil cleanup began in September 2002 and finished in May 2004. Ground water monitoring is ongoing.

In 2010, after Concept Eco, Inc. closed, a bank foreclosed on the property. Several years after Florida Aero Precision opened its facility on the BMI- Textron site, conditions aligned to support further reuse opportunities at the Trans Circuits, Inc. site. The company's positive experience working with EPA throughout the redevelopment of the BMI-Textron site prompted them to contact EPA about the possible use of the Trans Circuits property. With its existing operations located across the street, the company saw the site as an excellent expansion opportunity. The building on site had high ceilings well suited for Florida Aero Precision's operations. The property could also provide plenty of parking and office space to support production operations.

However, Florida Aero Precision's bank had concerns about the site's status, Superfund liability and land uses compatible with the remedy. EPA worked with the bank and Florida Aero Precision to address questions and concerns and prepare the property for reuse.

Following a Prospective Purchaser Inquiry in 2011 with the bank and Florida Aero Precision, EPA drafted a site status letter that documented cleanup efforts and stated that the property could support land uses compatible with the remedy.¹ Additionally, EPA extended the 2000 Covenant Not to Sue to help further alleviate any remaining liability concerns.

With these documents in place, and questions and concerns addressed, Florida Aero Precision purchased the property in late 2011. EPA and stakeholder cooperation not only addressed stakeholders' liability concerns, but



Figure 4. Monitoring wells at the Trans Circuits, Inc. site.

Prospective Purchasers and Superfund Liability

Prospective Purchaser Agreements (PPAs) encourage the redevelopment of Superfund sites by protecting a prospective purchaser from future liability related to site contamination. These agreements can play an important role in enabling the redevelopment of a site. Nationally, EPA has taken steps to make the acquisition and redevelopment of Superfund sites easier for prospective purchasers.

Under the Brownfields Revitalization Act, a prospective purchaser need no longer negotiate a PPA with EPA and the federal government. In lieu of a signed agreement, the purchaser can meet requirements to become a bona fide prospective purchaser (BFPP).

¹ The Prospective Purchaser Inquiry (PPI) Service provides information about specific sites, including cleanup status, liability protection/limitation and lien issues, and answers questions about the coordination of cleanup and redevelopment activities at current or former Superfund sites. See EPA Region 4's PPI Web page for additional information: <http://www.epa.gov/region4/superfund/allresource/reuse/ppiservice/ppiservice.html>.

also enabled the company to move forward quickly with its expansion plans. Following the completion of property renovations in May 2012, Florida Aero Precision began production operations in its new facility in August 2013.

Beneficial Effects

Today, eight businesses operate on the two sites; each one provides jobs and employment income. They also help generate local and state sales and property tax revenues. Together, new and long-time businesses at both sites bolster the local economy with jobs and provide valuable services to the local community. This section describes the specific beneficial effects of several businesses located at the sites.

Florida Aero Precision

Today, at both sites, Florida Aero Precision manufactures turbine components that are used internationally. The company emphasizes environmentally responsible practices, recycling metals, water and oils. The company also uses environmentally friendly coolants and relies on waste-to-energy incineration to dispose of waste liquids. Additionally, business operations remain protective of the remedies in place at both sites. At the Trans Circuits, Inc. site, the company complies with land use restrictions in the site's cleanup plan. Florida Aero Precision has agreed to not install wells on the property without permission from EPA, not allow residential development of the area and not engage in any activities that could interfere with the remedy. The company also allows EPA regular access to the site for ground water monitoring and treatment. At the BMI-Textron site, an asphalt cap covers a small area of contaminated soil left in place. Florida Aero Precision also complies with ground water restrictions required by the remedy.



Figure 5. Florida Aero Precision operations at the Trans Circuits, Inc. site.

Expansion into the 21,000-square-foot building on the Trans Circuits, Inc. site allowed the company to create an additional 15 jobs, many of which are skilled laborer positions. The new location provides additional production space and new office space. Across both sites, the company's facilities employ 45 people and contribute nearly \$3.3 million in annual income to the local community. Annual business sales in 2013 reached \$5.7 million.

Additional Businesses South of Newman Road

In addition to Florida Aero Precision, seven other businesses are located at the BMI-Textron site. Some of these businesses remained open during cleanup; others have moved to the site since cleanup finished.

SERVPRO of North Palm Beach County Professionals

Located at 117 Miler Way, this business provides fire, water, mold and storm damage restoration services in West Palm Beach and surrounding areas. Available 24 hours a day, seven days a week, it serves residential and

commercial properties. It employs 15 people, contributing over \$254,000 in annual income to the local community. Estimated 2013 sales reached \$750,000.

Artv

Established in 2003, this carpentry contracting business is located at 125 Miller Way. It employs one person, contributing over \$37,000 in annual income to the local community. Estimated 2013 sales reached \$100,000.

Commercial Cooling Concepts

This heating and air conditioning service and repair business opened in 2001 and is located at 116 Reed Road. It employs eight people, contributing over \$356,000 in annual income to the local community. Estimated 2013 sales reached \$760,000.

Global Electric

This state-licensed electrical contractor serves Palm Beach County and surrounding areas. The business provides commercial and residential electrical service, repair and installation. Its 2,400-square-foot facility is located at 1129 Silver Beach Road. The business employs six people and provides an estimated \$257,000 in annual income to the local community. Estimated 2013 sales reached \$640,000.

Gorgeous Carpet

Established in 1996, this floor-covering business is located at 117 Miller Way. It employs one person, contributing an estimated \$40,000 in annual income to the local community. Estimated 2013 sales reached \$150,000.

M. Wegener

This cabinet manufacturer operates at 116 Reed Road, Suite #4. Established in 1997, it employs five people and provides an estimated \$176,000 in annual income to the local community. Estimated 2013 sales reached \$310,000.

Fireside Distributors, Inc. of Palm Beach County

This family-owned business sells fireplaces and barbecue grills, and builds custom masonry fireplaces, outdoor barbecue pits and summer kitchens. Its 9,000-square-foot facility is located at 1121 Silver Beach Road. It employs 13 people, contributing nearly \$432,000 in annual income to the local community. Estimated 2013 sales reached almost \$3.2 million.

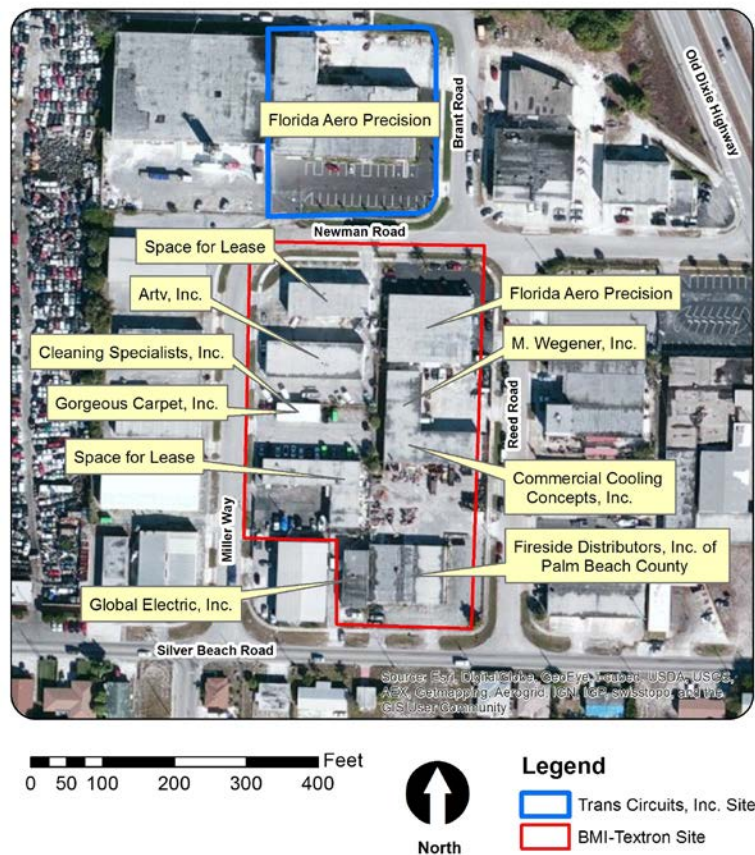


Figure 6. Site properties and businesses, 2014.



Property Values and Tax Revenue

In 2013, properties at both sites generated over \$87,000 in total tax revenues, with an estimated property value of over \$2.6 million. On-site businesses that produce retail sales and services also generate tax revenues through the collection of sales taxes, which support state and local governments.²

Future Site Use

Looking forward, EPA will continue to work with stakeholders at both sites to support protective reuses and ensure the long-term stewardship of site remedies.

Conclusion

Collaboration and cooperation among EPA, state agencies, a responsible party, and site business owners was vital to the successful cleanup and continued use and reuse of the BMI-Textron and Trans Circuits, Inc. sites. EPA's carefully designed cleanups protected public health and the environment, and also enabled businesses to remain open throughout cleanup activities. Today, at both sites, Florida Aero Precision manufactures aircraft engine and turbine parts, supporting production of green energy as well as conventional energy resources. Businesses on both sites support local economic growth, providing over 90 jobs and about \$4.8 million in annual employee income. These businesses also generate tax revenues and provide the community with a variety of commercial and industrial services. Looking to the future, the cleanups have also set the stage for additional redevelopment opportunities in the area. There are currently several commercial spaces available for lease at the BMI-Textron site.

*For more information about EPA's Superfund Redevelopment Initiative (SRI), visit:
<http://www.epa.gov/superfund/programs/recycle>.*

² The combined city sales and use tax rate in Palm Beach County is 6 percent. See the Florida Department of Revenue's website for more information: http://dor.myflorida.com/dor/taxes/sales_tax.html.



www.epa.gov

Reuse and the Benefit to Community

BMI-Extron and Trans Circuits, Inc. Superfund Sites

Technical Appendix

Employment Information for On-site Jobs

EPA obtained information on the number of employees and sales volume for on-site businesses from the Hoovers/Dun & Bradstreet (D&B) database. EPA also gathered information on businesses and corporations from [D&B](#). D&B maintains a database of over 179 million companies globally and over 53 million professional contact names using a variety of sources, including public records, trade references, telecommunication providers, newspapers and publications, and telephone interviews. The Data Universal Numbering System (DUNS) number is a unique nine-digit identification number assigned by Hoovers to each business and its location within the Hoovers database for identifying each business.

Wage and Income Information for On-site Jobs

EPA obtained wage and income information from the U.S. Bureau of Labor Statistics (BLS). The BLS is a governmental statistical agency that collects, processes, analyzes and disseminates essential statistical data to the American public, the U.S. Congress and other federal agencies in the broad field of labor economics and statistics. The data EPA obtained from the BLS has high standards of accuracy and consistently high statistical quality, and impartiality in both subject matter and presentation.

EPA used the BLS Quarterly Census of Employment and Wages database to obtain average weekly wage data for the businesses located at the BMI-Extron and Trans Circuits, Inc. Superfund sites. Average weekly wage data were identified by matching the North American Industry Classification System (NAICS) codes corresponding with each type of business with weekly wage data for corresponding businesses in Palm Beach County.

To determine the annual wages (mean annual) earned from jobs generated by the businesses located at the BMI-Extron and Trans Circuits, Inc. Superfund sites, the average weekly wage figures were multiplied by the number of weeks in a year (52) and by the number of jobs (employees) for each business.

Table 1: BMI-Textron and Trans Circuits, Inc. Site Businesses: NAICS Code and Title, Employees, Average Weekly Wage, Annual Wage per Employee, Total Annual Wages and Total Annual Business Sales

On-site Business	NAICS Code ^a	NAICS Title	Employees ^c	Average Weekly Wage (2012) ^d	Annual Wage (Mean Annual) per Employee	Total Annual Wages ^e	Total Annual Business Sales (2013)
BMI-Textron Site							
Artv, Inc.	23813 ^b	Framing Contractors	1	\$719	\$37,388	\$37,388	\$100,000
Cleaning Specialists, Inc.	561720	Janitorial Services	15	\$326	\$16,952	\$254,280	\$750,000
Commercial Cooling Concepts, Inc.	23822 ^b	Plumbing, Heating, and Air-Conditioning Contractors	8	\$858	\$44,616	\$356,928	\$760,000
Fireside Distributors, Inc. of Palm Beach County	23814 ^b	Masonry Contractors	13	\$639	\$33,228	\$431,964	\$3,190,000
Florida Aero Precision, Inc.	336412	Aircraft Engine and Engine Parts Manufacturing	30	\$1,406	\$73,112	\$2,193,360	\$5,700,000
Global Electric Inc.	23821 ^b	Electrical Contractors and Other Wiring Installation Contractors	6	\$824	\$42,848	\$257,088	\$640,000
Gorgeous Carpet, Inc.	442210	Floor Covering Stores	1	\$766	\$39,832	\$39,832	\$150,000
M Wegener, Inc.	337110	Wood Kitchen Cabinet and Countertop Manufacturing	5	\$677	\$35,204	\$176,020	\$310,000
Trans Circuits, Inc. Site							
Florida Aero Precision, Inc.	336412	Aircraft Engine and Engine Parts Manufacturing	15 ^f	\$1,406	\$73,112	\$1,096,680	N/A
TOTALS			94			\$4,843,540	\$11,600,000
^a NAICS code is from D&B database unless otherwise noted. ^b BLS information not available for the full six-digit NAICS code. This value is the shorter NAICS code used to obtain the most accurate BLS values available. ^c Employee data is from D&B database, except where otherwise indicated. ^d Average weekly wage per employee is based on BLS Average Weekly Wage data. ^e Total annual wage figures were derived by multiplying "Employees" by "Annual Wage (Mean Annual) per Employee." ^f Employee number obtained during February 2014 site visit. NA: Not available or not applicable.							

Property Values and Local Tax Revenue Generated from Property Taxes

Property records accessible through Palm Beach County’s online property appraisal database (<http://www.pbcgov.com/papa/Asps/GeneralAdvSrch/SearchPage.aspx?f=a>). EPA obtained data on the most recently assessed values for property parcels at the BMI-Textron and Trans Circuits, Inc. Superfund sites in April 2014. EPA also used this website to obtain 2013 property tax information for property parcels at the sites.

Table 2. Property Value and Tax Summary for Taxes Payable in 2013

Parcel ID No.	Parcel Address	Total Market Value of Land and Improvements (2013)	Total Property Tax (2013)
BMI-Textron Site			
36-43-42-20-07-003-0120	116 Reed Road, Suite 1	\$291,949	\$9,764
36-43-42-20-07-003-0130	116 Reed Road, Suite 6	\$316,573	\$10,807
36-43-42-20-07-003-0010	133 Miller Way, Suite A	\$190,298	\$6,153
36-43-42-20-07-003-0011	125 Miller Way, Suite 1	\$216,543	\$7,318
36-43-42-20-07-003-0031	117 Miller Way	\$131,047	\$3,791
36-43-42-20-07-003-0040	109 Miller Way, Suite 1	\$223,225	\$7,478
36-43-42-20-07-003-0070	1129 Silver Beach Road	\$126,723	\$3,938
36-43-42-20-07-003-0080	1121 Silver Beach Road	\$336,898	\$11,040
Trans Circuits, Inc. Site			
36-43-42-20-00-000-5120	210 Newman Road, Suite A	\$814,545	\$27,397
Totals		\$2,647,801	\$87,686