

South Carolina Department of Health and Environmental Control State Superfund Program

# AVX Corporation Site

801 17th Avenue South, Myrtle Beach, SC

Remedial Investigation
Fact Sheet & Announcements
of Availability Sessions
& Administrative Record

December 3, 2007

# **DHEC** Activities

The South Carolina Department of Health and Environmental Control (DHEC or the Department) is investigating the release of hazardous substances from the AVX Corporation's Myrtle Beach Plant at 801 17<sup>th</sup> Avenue South, Myrtle Beach, South Carolina (the Site). The results of the Department's ongoing investigation indicate that soil and groundwater is contaminated at the AVX facility, and that groundwater has migrated to other properties around the AVX facility.

This Fact Sheet is provided to assist the public in understanding what is occurring in their community and to provide accurate background information regarding the site.

# Announcement of Availability Sessions

When: December 13, 2007
Times: 1:00pm until 4:00pm
5:00pm until 7:00pm

Where: Myrtle Beach Fire Dept.-Station #3
2108 S. Kings Hwy.

Myrtle Beach, SC

During the Availability Sessions, the Department will provide information regarding:

- Recent and historic environmental investigations, and
- Upcoming investigation activities at the AVX facility and surrounding areas.

The Department will also respond to the public's questions and gather additional information from the public. The Department will seek information as to how the public would like to be informed about future environmental activities at the Site. It is the Department's goal to keep the residents informed and provide opportunities for public input with the cleanup activities at the Site.

The Department may provide interpreters if requested in advance of the Availability Sessions. Please call: Pat Vincent: 803-896-4074

• For our Spanish-speaking Community: Se Habla: 866-300-9327

For our Hearing-Impaired Community: 800-984-4357

## DHEC-BL&WM

2600 Bull Street Columbia, SC 29206

> DHEC's Site Contact Persons:

#### Carol Minsk

Lead Project Manager Superfund Hydrogeology 803-896-4046

#### J. Lucas Berresford

State Remediation Section 803-896-4071

### R. Gary Stewart

Section Manager State Remediation 803-896-4054

### Van Keisler

Section Manager Superfund Hydrogeology 803-896-4014

#### Pat Vincent

Community Information Coordinator 803-896-4074

 Can assist with any special needs of the public for the availability sessions

#### **DHEC-ECQ Region 6**

927 Shine Avenue Myrtle Beach, SC

#### Matt Maxwell

Environmental Health Manager DHEC-EQC Region 6 843-238-4378

### Larry Ragsdale

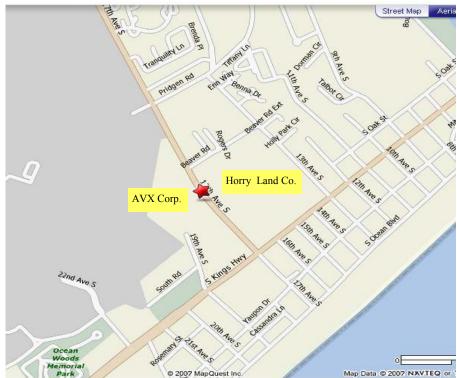
Regional Director DHEC-EQC Region 6 843-238-4378

# **Brief Site History**

#### **AVX Activities Prior to DHEC's Involvement**

AVX began operations at the facility in 1953. Since that time, AVX has produced a variety of ceramic capacitors and electronic components. Chlorinated solvents, including trichloroethylene (TCE) and 1,1,1-trichloroethane (1,1,1-TCA), were used at various times by the facility operators until 1993. TCE and 1,1,1-TCA are colorless liquids that were used by AVX as solvents for cleaning metal parts. According to AVX records, chlorinated agents and cleaning chemicals have not been purchased or used on-site since May 1993.

In approximately 1981, AVX began conducting assessment and remediation of contaminated soil and groundwater without DHEC's knowledge. These activities included the installation of groundwater monitoring wells; excavation, land farming and offsite disposal of liquid wastes and contaminated soils; installation of a groundwater injection system for in-situ bioremediation; and the excavation and removal of underground storage tanks (USTs) containing virgin and spent volatile organic compounds (VOCs). Since approximately 1985, AVX has pumped contaminated groundwater from a depth of 45 feet below ground surface. The contaminated groundwater was pumped into cooling towers and used as noncontact cooling water prior to being discharged into the municipal sewer for treatment.



# **DHEC Regulatory History**

Early On-Site Remedial Investigation (RI)

In June 1995, AVX notified the Department of the existence of soil and groundwater contamination at the facility. In 1996, the Department issued a consent order (96-43-HW, DWP) that, among other things, required AVX to submit a work plan for an investigation and remediation of soil and groundwater. From 1997 until 1999, a number of soil and groundwater samples were collected around the facility as part of the Remedial Investigation (RI). Sampling results indicated that TCE and other chlorinated chemicals were present in soil and groundwater and that the majority of the contamination was on the AVX facility property. Since that time, Groundwater Monitoring Reports have been submitted and reviewed by the Department on a routine basis. Based on these reports, the Department requested

that AVX conduct additional investigative activities to find the sources of contamination and extent of contamination off-site.

# **Ongoing Pump and Treat System Upgrades**

The consent order issued by the Department in 1996 also required AVX to upgrade the existing groundwater treatment system. AVX upgraded the treatment system in February 1997. Since that time, the Department has reviewed the groundwater monitoring reports and requested additional modifications to the existing groundwater pump and treat system be considered by AVX to determine the extent of the system's effectiveness.

Subsequently, AVX conducted an additional study of the treatment system and determined the downgradient monitoring well across Highway 17 South was slightly above Maximum Contaminant Levels (MCLs or drinking water standards) and had not decreased over time. MCLs is the maximum amount of a chemical that is allowed in a public drinking water supply under State and Federal regulations. The MCLs for TCE and 1,1,1-TCA are 5 parts per billion and 7 parts per billion, respectively.

Again, the Department requested that AVX conduct additional assessment. The Groundwater Monitoring Reports and Treatment System Studies have indicated that the existing groundwater treatment system has made some progress in cleaning up groundwater; however, additional measures are needed to more effectively address the contamination.

# **Current Site Cleanup Recent Offsite Investigations**

On July 17, 2006, the environmental consultant for Horry Land Company, Inc. (HLC, Inc.) requested approval to install five temporary groundwater monitoring wells on the HLC's property across from the AVX Site. On August 7, 2006, the Department received a report of the sampling results, which indicated that two of the monitoring wells contained volatile organic compounds (VOCs) in the groundwater exceeding drinking water standards. As a result on August 31, 2006, the Department requested that AVX submit a work plan to further investigate potential groundwater contamination beyond the AVX facility's existing monitoring wells.

AVX's work plan for Phase 1 groundwater investigation was submitted on October 13, 2006, and approved on October 30, 2006. On January 19, 2007, AVX began collecting 32 groundwater samples at the Site. On February 6, 2007, AVX submitted the Phase I results to the Department, which indicated off-site groundwater contamination, to the Department along with the Phase II Work Plan. Figure 1 shows concentrations of TCE at each sampling location.

The Department approved the Phase II Work Plan on February 7, 2007. Eighteen groundwater samples were then collected. As with Phase I, the Phase II results indicated additional offsite groundwater contamination. <u>Figure 1</u> shows concentrations of TCE at each sampling location.

The Department approved AVX's plan for Phase III assessment on March 1, 2007. Field work was conducted during the week of March 5<sup>th</sup>. These samples indicated additional offsite concentrations of TCE above drinking water standards. (Figure 1). The Department and AVX met on May 22, 2007 to discuss AVX's May 21 Investigation Report and to discuss the future work to be performed regarding off-site groundwater investigation.

The Department approved AVX's work plan for Phase IV assessment on October 22, 2007, and the work plan was implemented in November 2007. This work plan included the installation of two permanent monitoring wells in the shallow aquifer and three permanent wells in the deep aquifer, thirteen surface water samples from the stream that leads to Withers Swash and the stormwater runoff pond, and four additional borings to determine the extent of contamination at the Site. Figure 2 shows these sampling locations.

### **Upcoming Site Work**

Plans are underway to install additional monitoring wells and to collect soil gas samples to determine if the contamination within the groundwater is migrating to the surface where it could potentially affect indoor air quality. Groundwater samples collected to date indicate that contamination in groundwater is in the 20 to 40-foot depth range. A number of the samples indicate that contamination may be greater near the 40-foot depth than at the 20-foot depth. Some of the new wells to be installed will be at even greater depths to determine how far down the contamination has migrated.

Based on the results of the soil gas and additional groundwater sampling, the Department will determine what additional investigation activities, if any, will be required. AVX continues to operate the groundwater treatment system to contamination on-site. Upon completion of the investigation, AVX will be required to evaluate appropriate alternatives for addressing the contamination. Once a complete understanding of the extent of contamination exists and appropriate alternatives are evaluated, a remedy will be selected for cleanup of the Site.

## **Common Questions**

# 1. Is my drinking water safe?

The area that is affected by the contaminated groundwater is serviced by city water. Government regulations require periodic sampling of city water to ensure its safety. Based on these results, the Department does not believe that the city water has been impacted by the contamination at the Site. If you are located within the area shown in Figure 1 and use a well for drinking water or irrigation, please contact Carol Minsk at 803-896-4032 or Lucas Berresford at 803-896-4071.

## 2. What about indoor air quality?

The Department is currently working with AVX to address any potential air issues that could result from contamination present at the Site. The majority of the high levels of contamination are located under vacant wooded property. Upcoming investigation activities will focus on determining if any indoor air issues exist. A detailed plan is being compiled to collect samples from areas that had the highest concentrations near the residential areas around the Site. Once the data is collected, the Department will make that information available to the public.

### 3. Can the presently vacant property be developed in the future?

Provided that city water is used for drinking water and proper engineering controls are used during construction, there is no apparent environmental reason to restrict development.

# **Community Involvement**

DHEC is committed to early, direct, and meaningful public involvement in the Site Assessment and Remediation process

### **Administrative Record**

By December 14, 2007, the Department will have placed the Administrative Record (AR) at:

Horry County Memorial Library—Socastee BranchHours:Monday -Thursday:10:00am—8:00pm141 SC Hwy 707-Connector, Myrtle Beach, SCFriday:10:00am—6:00pmMyrtle Beach, South CarolinaSaturday:10:00am—3:00pm

The AR contains, among other things, documents that the Department relies upon in making its technical decisions at the Site. The Department urges the public to review these documents.

#### **Mailing List**

If you have received this Fact Sheet via U.S. Mail, you are on DHEC's mailing list for this Site. If you would like to be included on the mailing list for this Site, please forward your name, address, telephone, and email address to the address below.

Pat L. Vincent SCDHEC-BL&WM 2600 Bull Street Columbia, SC 29201-1701 Direct Telephone: 803-896-4074

Email: vincenpl@dhec.sc.gov