



## Monthly Update

### AVX Corporation

801 17th Avenue South, Myrtle Beach, SC

October/November 2008

### Introduction

In an ongoing effort to inform the community near AVX in Myrtle Beach, the South Carolina Department of Health and Environmental Control (DHEC) provides this monthly update to the citizens on our mailing list who have expressed interest. The monthly update includes information from DHEC's three program areas (Air, Land & Waste, and Water), as well as other AVX news that DHEC has to share.

Along with this monthly update, DHEC has created a web page ([www.scdhec.gov/avx](http://www.scdhec.gov/avx)) where DHEC information on the AVX site, including our monthly updates, may be accessed more easily. Anyone interested in receiving these monthly updates either by U.S. mail or email may sign up on the web page to receive them.

### Bureau Updates

#### *Bureau of Air Quality (BAQ)*

The Bureau of Air Quality has asked AVX to re-calculate facility-wide emissions to determine what type of operating permit the facility will need. To better address citizens' concerns about the impacts of off-site air toxics concentrations, the BAQ has asked AVX to submit refined air dispersion modeling analysis and perform source testing (also known as "stack testing"). The September 25, 2008, [letter](#), in which DHEC makes these requests of AVX, can be read on the website. AVX has agreed to voluntarily submit test protocols, or plans, for DHEC review.

DHEC conducted a comprehensive and unannounced air quality inspection on September 2, 2008. The inspection was carried out by a team of DHEC inspectors from the Florence, Sumter and Myrtle Beach regional offices. The team conducted a complete plant walk-through to ensure compliance with current air quality regulations and standards. The team also thoroughly reviewed air emissions and air quality control device records. Based on the team's observations and findings, DHEC determined that AVX was operating in compliance with the conditions of the existing air quality permit. The [inspection report](#) can be found on the web page.

### ***Bureau of Land and Waste Management (BLWM)***

In September 2008, the BLWM granted monitoring well approvals for the fieldwork associated with the Feasibility Study (FS) approved in June 2008.

This first phase of fieldwork was – conducted by an independent environmental engineering firm – from September 15, 2008, until early October 2008. The firm collected several soil gas samples, installed more groundwater monitoring wells on the property, and measured groundwater elevations. Borings, or holes, were also drilled into the ground to further analyze the soil composition. This data will be used to design a remediation system for the contaminated groundwater. Further fieldwork will continue on and around the AVX site into the summer of 2009. DHEC will continue to review data from these investigations throughout the process and make any adjustments needed to the system design. Through this process, DHEC will determine if the injection of molasses (a thick syrup produced in refining raw sugar) is the most appropriate groundwater remediation technique for this site.

AVX submitted a Groundwater Monitoring and On-Site Monitoring Well Installation Report on September 29, 2008. This report contains groundwater data from monitoring wells on and around the site in 2008. This annual report is required by DHEC in order to track the levels of contamination in the groundwater and assess what, if any, changes are occurring over time.

Since the previous update, AVX has also submitted a plan to DHEC for the removal of a concrete pad located on the property that was once used for storage. DHEC has approved this plan. Soil samples will be taken from under and around the pad to check for contamination once the concrete has been removed and disposed of properly. The pad was removed in November 2008.

### ***Bureau of Water (BOW)***

The permit to construct the injection well discussed above was issued in September. AVX is scheduling construction of the injection well.

On September 17, 2008, DHEC regional staff performed a Compliance Evaluation Inspection (CEI) of the National Pollutant Discharge Elimination System (NPDES) permit at AVX in Myrtle Beach. Permit requirements were being met at that time. The [inspection report](#) can be found on the webpage.

AVX Corporation is permitted, by NPDES permit (SC0047953), to discharge treated wastewater and land-apply treated wastewater following groundwater remediation. The waterbody receiving the treated water is Withers Swash, which flows to the Atlantic Ocean just south of 3<sup>rd</sup> Avenue South in Myrtle Beach, SC. This permit became effective on March 1, 2007 and expires on June 30, 2011. This facility pumps contaminated groundwater to an air stripper and discharges the treated water to a series of three (3) stormwater ponds on site. Water from the first stormwater pond is used for land application over seven (7) acres of landscaped area. Land application rates are limited to 8,857 gallons per day per acre, for a total of 61,999 gallons per day. The permit does not limit flow of treated water to the onsite stormwater ponds and Withers Swash.

## **Other News**

As reported by AVX, they have conducted workplace chemical exposure testing of employees and have not detected exposure risks that exceed any Occupational Safety and Health Administration (OSHA) action limits. Also, OSHA has conducted employee exposure testing at AVX and has not detected chemical exposure in the workplace that approaches OSHA action limits.



## **Questions from your community**

### *Questions:*

Why do you have to do a pilot or feasibility study before you get to the groundwater clean-up? Why can't you go straight to the clean-up and get some progress moving on the site?

### *Response:*

DHEC will analyze all options for the clean-up of contaminated groundwater beneath and around the AVX facility. One remedy that shows great promise is bioremediation. Bioremediation uses naturally occurring microorganisms in groundwater to break down contamination and restore the groundwater to its original condition. Groundwater data from the wells at the Myrtle Beach site show that this process is already occurring naturally. We see the breakdown products of TCE in the groundwater samples collected from many of the wells on and off site. If we enhance the bioremediation process by adding a food source (molasses), for the microorganisms, we can increase their number and their effectiveness.

We have decided to do a feasibility study of the effectiveness of bioremediation to address the groundwater contamination at AVX. The study itself will begin the process of remediation. We started

with a smaller-scale investigation to make sure that we have all the details necessary to design a larger-scale system that will be as effective as possible. Once we have the details needed to design an efficient system, we will be able to expand the system and still use the injection points and monitoring points we installed for the pilot study.

We must have a very good understanding of how much food source to inject, how far apart the injection wells need to be placed and how often they will need to be injected with the food source. Gathering this information takes time, because we have to allow the food source to move into the contaminated groundwater from our injection points. Ususally, groundwater is very slow-moving, and we will need to see where the food source goes, and how quickly it gets there, before we can be sure that we are taking the right steps to eliminate the groundwater contamination.

## **Contact Information**

For other environmental questions or comments in the Myrtle Beach area, please contact Larry Ragsdale or Matt Maxwell in our local DHEC office at (843) 238-4378.

DHEC would like to continue to share information and discuss concerns about AVX in Myrtle Beach with the surrounding communities. We would also like you to tell us how we can communicate with you more effectively. DHEC typically does this through availability sessions, informal public meetings, or by updates such as this. Please feel free to share your thoughts with us.

**Where possible, we would like to send future updates by e-mail.** If you are not on our e-mail list to obtain these monthly updates but would like to continue receiving them, please:

- visit the web page (<http://www.scdhec.gov/avx>) to sign-up; or
- contact **Richelle Tolton, Coastal Community Liaison**, at (843) 953-0173, or by e-mail at: [toltonrd@dhec.sc.gov](mailto:toltonrd@dhec.sc.gov).

If you prefer to receive these updates by U.S. Mail, please let us know that as well. Comments concerning the information being provided in the monthly updates are welcome.

***Please share this update with others who may be interested!***