

## **Region 3 GPRA Baseline RCRA Corrective Action Facility**

# **E.I. duPont de Nemours & Co., Inc**

**U.S. Highway 1 and Cogbill Road  
Richmond, VA 23261  
Congressional District 7  
EPA ID#: VAD009305137  
Last Updated: 12/15/2008**

## **Current Progress at the Site**

---

The DuPont Spruance facility is located in Chesterfield County, VA along the southern border of the city of Richmond.

DuPont has completed extensive investigations, both onsite and adjacent to the facility, of the sources, fate and transport of releases. Extensive remedial measures have been completed at the facility under the oversight of the Virginia Water Board and VA Department of Environmental Quality. These investigations and remedial measures represent over ten years of effort with a cost over \$ 20 million dollars. Reports submitted to the agencies by DuPont have included four phases of groundwater investigation studies, a concept design report for a Groundwater Extraction and Treatment System and routine groundwater and surface water monitoring reports.

Remedial measures implemented to date include the cessation of ongoing releases from the Tyvek spin cells (1987), capping of contaminated soil in the former Kevlar manufacturing areas (1990) and installation of a Groundwater Extraction & Treatment System (installed in 1994), and an upgrade to the extraction system in 2001. The Groundwater Extraction & Treatment System consists of pumping wells, both along the site perimeter and adjacent to major source areas, and a centralized treatment facility.

In October 1998, EPA issued the Corrective Action portion (i.e., HSWA permit) of their site RCRA Part B Permit (VAD009305137, 3/29/1996) to the DuPont Spruance facility, that requires conducting investigations and determining if additional corrective measures of on-site solid waste management units (SWMUs) are necessary.

Under EPA direction, DuPont prepared a RCRA Release Assessment Report for the site, a Current and Future Anticipated Land Use Report for the site and an Interim Measures Report for the Groundwater Extraction & Treatment System.

- The Release Assessment Report evaluated the need for further action at 18 Solid Waste Management Units (SWMUs) located on facility property.
- The Land Use Report documents the comprehensive review of information pertinent to future land use patterns on and around the Site to confirm that land use will continue to be classified as industrial.
- The Interim Measures (IM) Report describes the groundwater conditions and the groundwater extraction and treatment system which was put into operation in 1994.

The next steps for the site includes the development of a RCRA Facility Investigation (RFI) Plan for those SWMUs that the EPA determines require further investigation and a continued monitoring plan for those SWMUs being addressed through the groundwater extraction and treatment system interim measure.

- The RFI Plan will propose collection of site-specific information and environmental sampling/analytical data to determine the appropriate remedial action, if any, for the impacted media.
- The monitoring plan will propose a site wide program to evaluate the effectiveness of the groundwater extraction and treatment system in managing the impact of releases from the SWMUs.

In May 2006, Dupont submitted a workplan to EPA and VDEQ for groundwater and surface water sampling for PFOA. The workplan was later revised and resubmitted in late July. EPA approved the workplan in early August 2006. The Workplan calls for 27 monitoring wells to be sampled as well as 20 surface water samples. The sampling was conducted during the last two weeks of August. EPA and VDEQ provided oversight during the sampling event and also split - selected samples with Dupont.

On November 1, 2006, DuPont submitted the results of the groundwater and surface water. The highest concentration of PFOA in groundwater was 7.5 ppb. While the sampling results indicate low concentrations of PFOA, a second phase was conducted in 2007 to further define PFOA in groundwater. In addition to groundwater, four drinking water fountains were tested near the former Teflon production area. The second round results were submitted by DuPont in July 2007. Results indicate no PFOA detections in the five drinking water locations tested. Further groundwater testing near the landfill revealed that the landfill is the likely source of PFOA.

In October 2007, DuPont submitted an RCRA Facility Investigation and Corrective Measures Study Workplan to gather information such as; groundwater, surface water geophysical and geotechnical information around the landfill. EPA approved the workplan on October 5, 2007. Work has continued at the site in characterizing the landfill and the site geology thru 2008.

## **Site Description**

---

The Spruance Facility is located in Chesterfield County, Virginia, along the southern border of the City of Richmond. The Spruance property is approximately 525 acres in area. It is bordered on the west by Jefferson Davis Highway and on the east by the James River.

The site has had continuous operations since 1929 as a manufacturing plant for textile fibers and sheet products. In the nearly 70 years of operation, DuPont has significantly expanded its operations and intends to continue operations at the Spruance Facility in the future. There are no plans to use any portion of the property for non-industrial purposes. The properties immediately surrounding the Spruance Facility are entirely industrial and commercial in nature.

## **Site Responsibility**

---

RCRA Corrective Action activities at the DuPont facility are being conducted under the direction of EPA. The investigation and any necessary clean up activities are being implemented in accordance with a federal Corrective Action Permit.

## **Contaminants**

---

DuPont has collected groundwater samples from approximately two hundred fifty (250) monitoring wells located on and adjacent to the facility. Samples from these wells have

been analyzed for a broad range of potential constituents. The results of these analyses have identified Trichloroflouromethane (TCFM), Chloroform and Hexamethylphosphoramide (HMPA) as the primary constituents present in groundwater.

## Community Interaction

---

The groundwater issues at the site have been the focus of several newspaper articles since 1978.

The site has held discussions with an existing Community Advisory Panel in January 1993 concerning the groundwater conditions and in the fall of 1998, providing an overview of the Corrective Action process.

## Institutional Controls

---

No institutional controls are currently in place.

## Government Contacts

---

EPA Project Manager  
Mr. Michael Jacobi - 3LC20  
U.S. Environmental Protection Agency - Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029  
Phone: (215) 814-3435  
Email: [jacobi.mike@epa.gov](mailto:jacobi.mike@epa.gov)

Richard Criqui  
Virginia Department of Environmental Quality  
P.O. Box 10009  
Richmond, VA 23240-0009  
Email: [rjcriqui@deq.virginia.gov](mailto:rjcriqui@deq.virginia.gov)

For more information about EPA's corrective action webpage, including Environmental Indicators, please visit our site at: [www.epa.gov/reg3wcmd/correctiveaction.htm](http://www.epa.gov/reg3wcmd/correctiveaction.htm)

To learn more about DuPont facilities in Virginia, please visit their website at: [www.virginia.dupont.com](http://www.virginia.dupont.com) (exit EPA)

## Facility Contact

---

Mr. Kevin Garon  
Project Director, DuPont Corporate Remediation Group  
6324 Fairview Road  
Charlotte, NC. 28210  
Phone: (704) 362-6635  
Email: [Kevin.P.Garon@usa.DuPont.com](mailto:Kevin.P.Garon@usa.DuPont.com)