

South Carolina Department of Health and Environmental Control

C. Earl Hunter, Commissioner

**Hazardous Waste Contingency Fund Annual Report** 

Fiscal Year 2010: July 1, 2009 through June 30, 2010





Bureau of Land and Waste Management Division of Site Assessment, Remediation and Revitalization

The Hazardous Waste Contingency Fund Annual Report is submitted by the SC Department of Health and Environmental Control in compliance with S.C. Code Section 44-56-180. Additionally, Act 119 of 2005 mandates that agencies provide all reports to the General Assembly in an electronic format.
Photographs on the cover were taken during the November 2009 removal action at the SCE&G Fleet Maintenance Site in Columbia, SC. The excavation consisted of the removal of gas holders, tar vats, brick foundations, underground storage tanks, and contaminated soil down to approximately 20-38 feet below ground surface. Over 130,000 tons of contaminated soil and debris were removed during the excavation and sent offsite for proper disposal. The removal was completed on March 2010. The Responsible Party performed the cleanup and reimbursed the Department's costs of overseeing these response activities pursuant to a Voluntary Cleanup Contract.

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#### I. THE STATE SUPERFUND PROGRAM: INTRODUCTION

This Annual Report is submitted to the South Carolina General Assembly as required by S.C. Code Ann. Section 44-56-180(b) of the South Carolina Hazardous Waste Management Act (HWMA). The HWMA mandates the South Carolina Department of Health & Environmental Control (DHEC or the Department) to annually report on the activities and response actions that have been carried out under the auspices of the Hazardous Waste Contingency Fund (HWCF or State Superfund). The State Superfund Program further publishes this report to provide outreach and education to a wide variety of audiences, including other elected officials, financial and real estate communities, businesses, consultants, local governments, redevelopment authorities, and the general public.

This report highlights some of the many accomplishments of DHEC's State Superfund Program during Fiscal Year 2010 (FY10). The State Superfund Program's purpose is to protect public health and the environment by requiring investigation and cleanup of abandoned and uncontrolled hazardous waste sites and by taking short-term actions to mitigate immediate threats to human health and the environment. DHEC focuses its attention and financial resources on the sites that pose the greatest risk to human health.

During FY10, staff directed response actions at over 200 uncontrolled or abandoned sites, including removal actions and emergency response actions to address immediate threats, long-term remedial actions, Brownfields, and criminal investigations. While some of these sites are being addressed by responsible parties (RPs) or non-responsible parties (NRPs), many response actions, as well as DHEC's oversight activities, are funded totally or partially by the HWCF.

In FY10, DHEC expended approximately \$2.1 million from the HWCF. The HWCF continued to fund or support numerous activities, including the feasibility study at the Philip Services Site in Rock Hill; sampling of private wells, provision of bottled water, and installation of a new water main to provide a permanent source of drinking water near the Town of Lexington; and the implementation and performance evaluation of a groundwater treatment system at the Stoller Site in Charleston County.

In addition to performing investigation and cleanup activities, the Department continued to pursue recovery of its past response costs. During FY10, staff expended much effort in gathering and compiling information for a major upcoming cost recovery effort. The Department also entered into contracts with private parties to pay for or perform response actions with Departmental oversight.

In FY09, in an effort to streamline DHEC's cleanup programs and to ensure consistency, the Office of Environmental Quality Control (EQC) reorganized and transferred six staff and several hundred sites from the Bureau of Water to the Bureau of Land and Waste Management's State Superfund Program. During FY10, the State Superfund Program began a focused effort to integrate these sites and staff into the Superfund Program.

While we recognize many past successes in dealing with uncontrolled sites, we remain mindful of our need to quickly and efficiently address the many other threats to public health and the environment that are posed by remaining uncontrolled waste sites in South Carolina. Currently, there are approximately 1115 sites that have been identified as being known or potentially contaminated. DHEC consistently attempts to direct private parties to assess and/or cleanup contamination where appropriate. Nonetheless, each site represents a potential liability to the HWCF if the RP(s) is unknown, unwilling, or unable to conduct the necessary activities. In light of that and prior fund expenditures to date, the known number of contaminated sites represents a potential liability to the HWCF in excess of \$60 million. Staff typically work 100-200 sites per year, but work is not always continuous and most sites require several years of attention before they are ready for reuse as residential or commercial properties.

The intent of this report is to provide the reader with an idea of the magnitude of work that has already been performed on uncontrolled sites as well as an understanding of the challenges that lie ahead in addressing the hundreds of other sites in our inventory.

#### II. HAZARDOUS WASTE CONTINGENCY FUND AND STATE SUPERFUND PROGRAM

### A. Brief History of Hazardous Waste Contingency Fund and the State Superfund Program

The South Carolina Hazardous Waste Contingency Fund was created in 1980 when the General Assembly amended the South Carolina Hazardous Waste Management Act (HWMA) to impose a fee of \$1.50 per ton on the disposal of hazardous waste at the former GSX Services landfill facility (later operated by Laidlaw and Safety-Kleen) at Pinewood. Through the years, various amendments to the HWMA modified the fee structure to include non-hazardous wastes and to increase the per ton rates on waste disposal.

Historically, the HWCF has been segregated into distinct and separate funds: the Permitted Sites Fund which ensures the availability of funds for response actions at permitted waste landfills, and the Uncontrolled Sites Fund which is used to defray the costs of governmental response actions at uncontrolled hazardous waste sites and from accidents in the transportation of hazardous materials.

In 1980, Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or federal Superfund law) to identify and manage the nation's worst abandoned and uncontrolled hazardous waste sites. In the early 1980s, the South Carolina General Assembly amended the HWMA and authorized DHEC to implement and enforce CERCLA. The HWMA was also amended to specifically incorporate the liability provisions of Section 107 of CERCLA, which created a liability scheme that encourages RPs to perform cleanups and provided a mechanism for recovering costs from recalcitrant parties.

The Uncontrolled Sites Fund (of the HWCF) is used to address abandoned and uncontrolled waste sites that do not qualify for federal assistance. The primary uses of the HWCF are to oversee the cleanup of contaminated sites, to cleanup those sites where other funds are not available, and to conduct emergency response activities. The HWCF is also used to conduct criminal investigations, to support the Voluntary Cleanup Program, to provide the State's cost share (10% up to 50% match) for federal dollars spent on remedial actions at Federal Superfund Sites, and to conduct the Waste Minimization and Reduction Program. The following paragraphs provide a brief discussion of the major uses of the HWCF. More detail is provided in Appendices A through E.

#### B. Hazardous Waste Contingency Fund Uses

### 1. State Lead Response Actions (Appendices A, B, and C)

The primary purpose of the HWCF is to provide funds for contractual services to perform state-funded investigation and cleanup activities at sites where other funds are not available. The State Superfund Program evaluates and sets priorities for sites in order to address the worst cases first. In FY06 and FY07, DHEC staff developed a new process for "tiering" sites (i.e., assigning a priority based on available information) to help ensure that the worst sites are addressed first. Unless the Department deems an imminent threat exists or a criminal investigation is necessary, state-funded response actions are generally

conducted only after the Department initiates the appropriate administrative procedures to secure alternative funding. Considerable time and effort are expended to ensure that all available funds from the RPs and other sources are utilized before drawing on funds from the HWCF.

In most cases, the Department attempts to negotiate settlements with RPs and NRPs prior to using the HWCF. Various styles of settlements with responsible and non-responsible parties require settling parties to perform investigations to determine the source, nature, and extent of contamination and/or cleanup contaminated sites, to fund these response activities themselves, or, alternatively, to reimburse the Department's response costs when the Department performs cleanups of sites. Appendix A includes information on each site relating to the type of settlements, RP and NRP contracts, cost recovery and settlement agreements, and/or judicial consent orders where a party may be performing and/or funding response activities. In many cases, multiple funding sources are used to investigate and/or cleanup sites. With many of these settlements, the Department provides bargaining tools, such as covenants not to sue for the work performed by the RP or NRP to the Department's satisfaction, and/or state contribution protection from other RPs which may seek reimbursement of all or a portion of costs of responding to environmental conditions at a site.

Even though a RP or NRP enters into an agreement or voluntary cleanup contract with the Department to pay for or perform response activities, DHEC staff must review and approve all environmental reports, sampling data, and other activities associated with the cleanup of contaminated sites to assure that public health and the environment are protected. Under these contracts and agreements, parties are required to reimburse DHEC's costs for oversight activities. The authority of DHEC to use the HWCF and to seek cost recovery provides the leverage that encourages RPs to come forward voluntarily. Further, DHEC performs public participation/community involvement activities pursuant to CERCLA and the National Contingency Plan (NCP) to ensure that affected communities have input into the cleanup. Appendix C details these activities.

There has been considerable progress in the State Superfund Program's efforts to address uncontrolled hazardous waste sites in spite of the complex process involved in resolving problems that have taken decades to develop. For example, many sites have been abandoned by bankrupt firms or are the product of "midnight" dumping and thus, the contamination remains unknown and undiscovered for years. This situation provides multiple challenges of identifying the materials involved, the persons responsible, defining the true extent of the problem and its associated risk, and notifying the community of findings and keeping them informed and involved in the cleanup efforts. Even though information on the chemicals used at a facility is often available, information on wastes may not be, and identifying the source and nature of the contamination is often very difficult. Considerable resources must be invested to properly sample and analyze materials, which are likely to be volatile, reactive, explosive, corrosive, and/or toxic.

Historically, DHEC has mobilized and responded after emergency orders were issued to close operating facilities such as Tin Products in Lexington County, Cardinal Chemical in Richland County, and Starmet in Barnwell County. The U.S. Environmental Protection Agency (EPA) has also assisted with cleaning up these facilities; however, their actions have generally been limited to short-term surficial cleanup. Long-term cleanup of the contaminated groundwater will likely be funded by the HWCF. The S.C. Hazardous Waste Management Act requires that DHEC pursue RPs to recover costs associated with the investigation and cleanup. DHEC often finds that the RPs are bankrupt and costs cannot be recovered.

### 2. Emergency Response (Appendix D)

DHEC's Emergency Response Program responds to accidental spills and other problems associated with the transportation of hazardous materials as well as other incidents where hazardous materials are spilled, illegally dumped, or otherwise abandoned on public property. The Emergency Response Program administers the Emergency Response Contract, which is used to secure, sample, and properly dispose of wastes. These activities are funded by the HWCF.

In FY10, the Emergency Response Program expended approximately \$34,362.49 responding to nine incidents. The Emergency Response Program has sought reimbursement of \$25,729.66 from the National Pollution Funds Center and approval is still pending. The amount of reimbursement money varies from year to year depending on the number and types of incidents that occur. All reimbursements are returned to the HWCF. Appendix D lists emergency response actions during FY10 and includes a brief description of each response.

#### 3. Administrative Costs/Salaries

DHEC uses some of the HWCF monies for administration. The HWCF currently funds approximately 15 FTEs (full-time equivalent positions) that perform site prioritization activities, project management, technical reviews and field oversight, cost recovery activities, public participation activities, and other administrative activities in support of the Program. During FY10, the HWCF provided approximately \$832,494.43 for salaries and fringe benefits, agency administrative assessments, and other non-site-specific costs. These costs are included in DHEC's cost recovery efforts against potentially responsible parties.

#### 4. Criminal Investigations

The State Superfund Program also assists DHEC's Office of Criminal Investigations in providing technical assistance and contractual services for gathering evidence for environmental crime cases. During FY10, the HWCF supported criminal investigation activities at five sites. After the initial criminal investigation activities were completed, DHEC performed additional cleanup activities using its civil authorities and the HWCF. On these five sites, DHEC spent approximately \$23,096.12 in supporting environmental criminal investigations and resulting civil cleanup actions. These matters are considered enforcement confidential until the criminal investigations are completed.

### 5. National Priorities List Sites (Appendix E)

The NPL is a list of sites that the United States Environmental Protection Agency (EPA) has identified for investigation and potential long-term remediation under the authority of the Federal Superfund Program. There are currently 41 NPL sites in South Carolina (two of which are Fund-lead), five sites that have been deleted from the NPL, 12 sites that are being addressed as "NPL-equivalent" sites, and six Federal-lead removal sites that are being addressed under the Support Agency Cooperative Agreement. DHEC staff provides technical and administrative assistance to EPA on these sites. Cleanup activities on most of these sites are being funded by private parties and most of DHEC's day to day costs are funded through a cooperative agreement with EPA; however, DHEC is "potentially" liable for a state cost share of 10% to 50% for long-term remedial action costs at sites being funded by EPA. In November 2009, DHEC assumed responsibility for 100% of the operation and maintenance costs for the existing groundwater pump and treat

system at the Elmore Waste Disposal Site in Greer (these costs are expected to be approximately \$150,000 per year). DHEC has also assumed responsibility for operation and maintenance costs at the Palmetto Wood Preserving Site in FY10. Costs for this site are expected to be relatively low, as only routine monitoring is expected to occur. DHEC may also incur costs for activities such as natural resource damage assessments and other activities that are outside the scope of the cooperative agreement. In FY10, DHEC expended approximately \$99,856.79 from the HWCF for activities at NPL and other Federal-lead sites. Additional information on South Carolina's NPL sites is included in Appendix E.

### C. Hazardous Waste Contingency Fund – Uncontrolled Sites Fund Status and Financial Sheets

#### 1. Fund Status

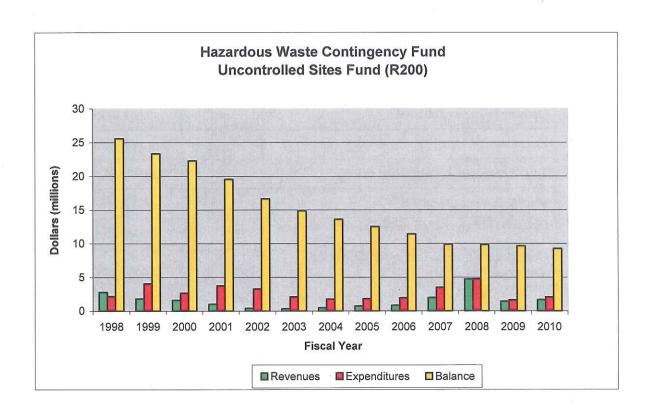
Just as CERCLA provides federal funding to address certain uncontrolled hazardous waste sites, the HWMA provides state funding to investigate and cleanup uncontrolled sites that do not qualify for federal assistance. From its beginning in 1980, the Uncontrolled Sites Fund portion of the HWCF grew to a balance of approximately \$11 million at the close of FY90.

Through the 1990s, revenues for the Uncontrolled Sites Fund averaged approximately \$2-3 million annually and the Fund balance grew and briefly exceeded \$25 million in 1998 (see Figure 1). However, in 2000, Safety-Kleen filed for bankruptcy protection and shortly thereafter stopped receiving waste at the Pinewood landfill. At that time, the Uncontrolled Sites Fund had a balance of approximately \$22 million. With the exception of monies from cost recovery efforts and the billing of private parties for DHEC's oversight of work performed under consent agreements and voluntary cleanup contracts, there were no new revenues for the HWCF. From FY98 through FY07, expenditures greatly exceeded revenues and the HWCF balance steadily declined. The closing balance for FY09 was approximately \$9,683.613.66. During FY10, revenues were \$1,689,587.07 and expenditures were \$2,097,544.52. The Uncontrolled Sites Fund closed FY10 with a balance of \$9,275,656.21, most of which is committed to future assessment and remediation activities.

Beginning in 2000, establishing a continued funding source for the HWCF was a budget priority for the Department. Budget Proviso 9.45, which was passed in 2006, allowed the HWCF to retain the interest on the fund balance. In FY08, Budget Proviso 9.54 authorized DHEC to assess an annual fee on hazardous waste generators and to levy a per ton fee on hazardous waste generated with the proceeds to be deposited into the HWCF. Specifically, large quantity generators, as determined by R.61-79.262 (South Carolina Hazardous Waste Regulations) producing greater than 100 tons of hazardous waste per year are assessed an annual base fee of \$1,000 per facility and a \$1.50 per ton fee for all hazardous waste the company generates. Large quantity generators producing 100 tons or less of hazardous waste are assessed an annual fee of \$1,000. Small quantity generators are assessed an annual fee of \$500. Fees collected under this provision shall not exceed an annual cap of \$15,000 per generator. Companies subject to fees required by S.C. Code Ann. Section 44-56-170(F)(1)(1976) are exempt from fees established by this provision. It is anticipated that these two provisos will authorize the annual collection of approximately \$1.5 to 2 million.

### 2. Financial Sheets

The chart below and table on page 8 show the Uncontrolled Sites Fund balances, revenues, and expenditures for FY10. Revenues were approximately \$1,689,587, expenditures were \$2,097,544, and the closing balance was \$9,275,656.



# Hazardous Waste Contingency Fund Balance for FY10

The FY10 year-end financial snapshot is listed below.

UNCONTROLLED SITES FUND			
Opening Balance (07/01/09)	9,683,613.66		
Revenues	1,689,587.00		
Total Expenditures FY10 (chart below)	(2,097,544.52)		
Closing Balance (06/30/10)	9,275,656.14		
Obligated as State Match for National Priorities List Sites.	(194,000.00)		
Obligated in Purchase Orders for Response Activities, Etc. (chart on page 9)	(4,093,874.33)		
Obligated for Supplies, Equipment, Travel, Etc.	(47,500.00)		
Obligated for Administrative Expenses for FY11 (Salaries, Fringe Benefits, and Agency Assessment)	(844,609.00)		
Un-obligated Balance for Uncontrolled Sites Fund (06/30/10)	4,095,672.81		

BREAKDOWN OF TOTAL FY09 EXPENDITURES		
Uncontrolled Sites	1,168,945.30	
Emergency Response	63,868.26	
Salaries, Fringe Benefits, Agency Administrative Assessment	864,730.96	
Total Expenditures	2,097,544.52	

### Obligations in Purchase Orders for Response Actions, Legal Activities, Etc. as of June 30, 2010

This table shows current site-specific obligations (approximately \$4.0 million) that are already assigned to a state contractor or which are planned to be committed in the near future. These sites represent a very small portion of DHEC's site inventory. Based on recent and historical averages, it is estimated that the existing inventory of sites may present a \$60 million liability to the HWCF.

OBLIGATION	DESCRIPTION	AMOUNT
Coastal Lumber—Marion Sawmill	Sampling	1,005.00
Congaree River Sediment	Sampling	10,000.00
Elmore Waste Disposal	Operation & Maintenance	138,634.00
Gun-O-Field Road	Drum Removal	4,057.18
Hebron Drive/Consolidated Freightways	Groundwater/Source Investigation	15,350.00
Hollis Road	Groundwater Treatment	2,600,000.00
Horton Sales Development	Chemical Tote Removal/Cost Recovery Support	4,412.47
J & H Smith Manufacturing	Sampling	17,134.25
Philip Services Corp.	Remedial Investigation & Feasibility Study; Pump & Treat System	168,129.50
RM Engineered	Sampling	1770.00
Springs Industries—Indian Land Service Center	Investigation	24,374.47
Springsteen Mill	Removal Action	5,449.75
Suffolk Chemical Company	Operation & Maintenance; Groundwater Pump and Treat System	46,056.39
US Finishing/Cone Mills	Sampling	100.00
Original Contractor Commitments	Various Sites/Activities	952,901.32
Miscellaneous	Legal Services, Etc.	104,500.00
Total Obligation through June 30,	2010 ***	4,093,874.33

<sup>\*\*\*</sup> This figure does not include any additional planned future assessment or cleanup activities that have not yet been assigned to a contractor. Sites that have a Record of Decision and previously had funds committed include the Columbia Organic Chemicals Site and Adams (Pete) Hasell Site.

# Appendix A

# **Summaries of State - Lead Sites**

The following summaries describe some of the State-lead sites at which Department personnel oversaw response activities during Fiscal Year 2010 (FY10). The funding for these activities came from Responsible Parties (RP), Non-Responsible Parties (NRP), or the Hazardous Waste Contingency Fund. The primary source of the funding for each site is designated in each site summary.

#### 3M GREENVILLE PLANT

Location: PERIMETER RD/DONALDSON CENTER GREENVILLE, SC

**Description:** Waste treatment plant lagoon has been closed out. Sludge removed and disposed of by landspreading. FY09, site transferred from BoW to SARR.

Lead Designation: Responsible Party

Funds Expended in FY10: \$ 176.00 Total Site Expenditures: \$176.00

Actions Taken in FY10: The RP is in the process of placing a deed restriction on the facility property. Emulsified Zero-Valent Iron (EZVI) was injected into the source area in late FY09. The Department granted the RP an extension to submit a monitoring report outlining the performance evaluation of the EZVI and future actions; and the Department anticipates the submission of the report in early FY11.

#### A-CHEM CORPORATION

Location: 5205 S MAIN ST (U.S HWY 29) COWPENS, SC

**Description:** Facility formerly manufactured dyes and resins for the textile industry and had a permitted wastewater treatment system that discharged to the public sewer. FY09, site transferred from BoW to SARR.

Lead Designation: Responsible Party Funded Consent Agreement 93-46-HW 08/30/1993

Funds Expended in FY10: \$ 1,360.00 Total Site Expenditures: \$76,632.00

Actions Taken in FY10: The interim remedial action, which includes pumping groundwater from the contaminated bedrock aquifer, treating the water by air stripping, and discharging the treated water to the Spartanburg Sanitary Sewer District, continued to operate. Monthly monitoring reports indicate the recovery and treatment of volatile organic compounds (VOCs) is continuing. Since system startup in April 2000, approximately 56.7 million gallons of groundwater have been treated and the total VOC mass removed estimated at 218 kg.

# ALLIED AMPHENOL PRODUCTS (BENDIX)

Location: 10106 TWO NOTCH RD COLUMBIA, SC

**Description:** Solvents have been found in a nearby lake and groundwater. FY09, site transferred from

BoW to SARR.

Lead Designation: Responsible Party

Funds Expended in FY10: \$ 591.00 Total Site Expenditures: \$3,748.00

Actions Taken in FY10: The Department met with the RP to advise that more effective remedial options need to be employed. The RP suggested the injection of a substance containing carbon and iron that may be effective in remediating the levels of VOCs that remain in the groundwater. More information and a formal proposal/underground injection control (UIC) request will be submitted. Semi-annual monitoring will continue and present remediation system will stay in operation.

### ARVIN MERITOR FACILITY

Location: 144 TRANQUIL CHURCH RD MULLINS, SC

Description: VOCs & metals in soils. Transfer project from BOW.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 05-5626-RP

Funds Expended in FY10: \$ 924.00 Total Site Expenditures: \$12,354.00

**Actions Taken in FY10:** On March 9, 2010, the RP submitted a Focused Feasibility Study (FFS) that evaluated appropriate response actions for addressing soil and groundwater impacts. The Department expects the FFS to be finalized in FY11.

### ASHEPOO PHOSPHATE/FERTILIZER WORKS

Location: BRASWELL ST CHARLESTON, SC

**Description:** A phosphate fertilizer granulation plant operated at this location. Lead and arsenic are present in the soil and groundwater. Groundwater has low pH. Charleston Container Co. is a portion of this site and is being worked on in the NRP-VCP.

Lead Designation: Federal-lead

State Funded (NRDs)

Voluntary Cleanup Contract 03-5290-NRP

Funds Expended in FY10: \$ 1,077.00 Total Site Expenditures: \$7,232.00

**Actions Taken in FY10:** This site's cleanup is being addressed under the Federal Superfund Program. The HWCF supported the Department's participation in several conferences with the Natural Resource Trustees and Conoco/Phillips regarding natural resource damages.

### ATLANTIC PHOSPHATE WORKS/SCE&G HAGOOD ST

Location: 2200 HAGOOD RD CHARLESTON, SC, SC

Description: From 1900 - 1943, the 30-acre site was used for phosphate fertilizer manufacturing from

1900 to 1943. In 1946, a power plant was built on the site.

Lead Designation: Federal-lead

State funded (NRDs)

Funds Expended in FY10: \$ 2,053.00 Total Site Expenditures: \$10,413.00

**Actions Taken in FY10:** This site is being addressed under the Federal Superfund Program. The HWCF supported the Department's participation in several conferences with the Natural Resource Trustees and ExxonMobil Corporation regarding natural resource damages.

The site is not listed on the National Priorities List (NPL), but is considered to be an NPL-caliber site and is being addressed through the Superfund Alternative Approach. This approach uses the same investigation and cleanup process and standards that are used for sites listed on the NPL.

### AUTOMATIC SWITCH COMPANY

Location: 1561 COLUMBIA HWY N AIKEN, SC

Description: Electronics manufacturer with groundwater contaminated with chlorinated solvents.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 02-5455-RP

Funds Expended in FY10: \$ 10,969.00 Total Site Expenditures: \$57,736.00

Actions Taken in FY10: The Record of Decision (ROD) was finalized on July 31, 2009. The Department selected a combination of alternatives to address both the soil and groundwater contamination. The final cleanup remedy consists of a Soil Vapor Extraction (SVE) system installed in the former PCE storage area to address the remaining VOC-contaminated soils, and a groundwater extraction and treatment system to pump and treat contaminated groundwater both on and off the facility property. Details and specifications of the system are described in the Groundwater Remedial Design/Remedial Action Report, which is currently under review by the Department. Quarterly sampling of nearby private wells will continue as part of the long-term groundwater monitoring plan. Also on December 22, 2009, the Department successfully negotiated an amendment to the Voluntary Cleanup Contract 02-5455-RP, which required the RP to implement the remedial action as selected in the ROD.

#### AVM OF SC

Location: US HWY 76 E MARION, SC

**Description:** Drums of potassium chloride and zinc plating sludge were stored in drums on-site. The materials are still on-site.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 05-5626-RP

Funds Expended in FY10: \$ 47.00 Total Site Expenditures: \$2,134.00

Actions Taken in FY10: The Department reviewed the semi-annual groundwater VOC plume data. The RP attempted to sample three monitoring wells for VOCs twice during FY10. During the first monitoring event conducted on October 9, 2009, there was not enough water present in the wells to get samples. The second sampling event, on April 10, was conducted and the results were within historical ranges. The site remains active because low levels of VOCs remain present in concentrations just above Drinking Water Standards in one on-site monitoring well. Groundwater monitoring is required until all detected concentrations of VOCs remain below Drinking Water Standards.

### AVX - AMERICAN GEAR & PINION CO

Location: HWY 501 CONWAY, SC

**Description:** An electronic components manufacturing facility has two unlined lagoons with metal plating waste and is located adjacent to the Intracoastal Waterway. Contamination is attributed to the former operator, American Gear & Pinion Company.

Lead Designation: Responsible Party Funded Consent Agreement 86-51-SW (9/29/1986) &

Responsible Party Funded, Administrative Order 97-36-SW 10/23/1997

Funds Expended in FY10: \$ 642.00 Total Site Expenditures: \$43,145.00

Actions Taken in FY10: The Department reviewed the Annual Groundwater Monitoring Report and requested additional groundwater assessment to assure that groundwater contamination is not migrating offsite.

### AVX CORPORATION MYRTLE BEACH

Location: 17TH AVE S MYRTLE BEACH, SC

**Description:** AVX acquired the property from the former Myrtle Beach Air Force Base and currently manufactures electronic components. From 1980 until 1996, groundwater contamination was monitored and treated by AVX without the Department's knowledge or approval.

Lead Designation: Responsible Party Funded Consent Order 96-43-HW, DWP 12/19/1996

Funds Expended in FY10: \$ 15,723.00 Total Site Expenditures: \$131,233.00

Actions Taken in FY10: The pilot study to test the effectiveness of Enhanced Reductive Dechlorination (ERD) as an effective alternative for groundwater remediation continued through FY10. Modifications to the pilot study injection system were proposed and approved by the Department. A final report of the pilot study is expected in FY11. Additionally, AVX began the process of removing some of the buildings from the facility property. The Department reviewed work plans for the investigation of soils beneath these buildings and reports of the soil data collected during the removal process. Other upgrades to the facility included the installation of a new air stripper used in the treatment of groundwater pumped from the on-site primary recovery well.

AVX also petitioned the Department to discontinue the use of two shallow extraction wells once the new air stripper was installed. The Department approved this request and required AVX to submit an updated groundwater monitoring network for the next round of annual groundwater sampling.

In a continuing effort to ensure effective communications, several DHEC program areas continued to hold joint meetings with AVX representatives. DHEC's public relations experts also continued to offer advice on keeping the public informed of site progress. AVX also submitted monthly progress reports, which are posted to the Department's website for public access.

### **B&K TRUCKING**

Location: 2194 THORNWELL RD LANCASTER, SC

**Description:** 21 acres of property with thousands of waste tires and evidence of burned tires. Eighty 55-

gallon drums containing what appear to be waste oil, several leaking/spilling contents.

Lead Designation: State funded

Funds Expended in FY10: \$ 3,931.00 Total Site Expenditures: \$3,931.00

Actions Taken in FY10: DHEC collected samples of suspected waste materials.

### BAHAN MACHINE & FOUNDRY CO INC

Location: 200 W WAREHOUSE CT TAYLORS, SC

Description: Former textile machinery manufacturing facility with possible PCB contamination.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 00-5403-RP

Non-Responsible Party Funded, Voluntary Cleanup Contract 00-5403-NRP

Funds Expended in FY10: \$ 330.00 Total Site Expenditures: \$14,789.00

Actions Taken in FY10: The results from five Free Phase Product Recovery events were reviewed. The thickness of the free product has been reduced as a result of the aggressive fluid recovery events, but free phase product still remains. The Department expects the Free Phase Product Recovery Report to be submitted in FY11.

#### BASF/SHAW INDUSTRIES

Location: 441 MASTERS BLVD ANDERSON, SC

Description: Nylon fiber manufacturing facility with wastewater treatment lagoons on site. FY09, site

transferred from BoW to SARR.

Lead Designation: Responsible Party Funded

Funds Expended in FY10: \$ 234.00 Total Site Expenditures: \$234.00

Actions Taken in FY10: The Department reviewed annual monitoring results of four wells which had elevated detections of VOCs.

### BEST GOLF CARTS/DUMP/WOOD PRESERVATION

Location: HWY 701 IN HOMEWOOD 2 MILES N OF CONWAY CONWAY, SC

Description: Former wood treating operation with copper, chromium and arsenic contamination.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 01-5103-RP

Responsible Party Funded Consent Agreement 95-17-HW 08/02/1995

Funds Expended in FY10: \$ 27.00 Total Site Expenditures: \$28,362.00

Actions Taken in FY10: On April 21, 2009, the Department requested the RP continue groundwater sampling in accordance with the schedule outlined in the Five-Year Review Report. The Department reviewed the groundwater results for the October 27, 2009 sampling event; which indicated the groundwater conditions have improved over the last three years. Only one monitoring well sample reported arsenic above Maximum Contaminant Levels (MCLs), yet the 0.389 mg/L concentration is less than one-half that observed during an October 2008 sampling event (0.807 mg/L). The Department expects the next Groundwater Report in FY11.

### BLACKBERRY VALLEY LANDFILL

Location: GROCE RD1.5 MI.FROM INT S-199 & S-132 GREENVILLE, SC

Description: A Greenville County permitted landfill that accepted domestic and industrial waste.

Lead Designation: Responsible Party Funded Administrative Consent Order 92-08-HW & Consent

Agreement 02-21-HW (10/04/2002) & 11 Cost Recovery Settlement Agmts

03/06/1992

Funds Expended in FY10: \$ 2,036.00 Total Site Expenditures: \$184,910.00

Actions Taken in FY10: DHEC reviewed the July 7, 2009 and January 8, 2010 methane monitoring reports, which document the amount of methane gas detected in various monitoring wells. An additional methane extraction well was added to the recovery system in March 2010. Also in March, a local resident requested information on the sampling of private water wells near the site; the private well survey/sampling results for the area were forwarded. Further, DHEC reviewed the July 29, 2009 and the January 6, 2010 monitoring reports which summarized data on the VOCs in groundwater around the landfill and in the surface water aeration system, and which provided information on the methane recovery system. DHEC responded to these reports on October 6, 2009 and January 12, 2010.

### BLAIR MILLS

Location: 115 BELTON ST ANDERSON, SC

**Description:** Former mill with one hydraulic oil plume and one VOC plume. FY09, site transferred from BoW to SARR.

Lead Designation: Responsible Party funded

Funds Expended in FY10: \$ 47.00 Total Site Expenditures: \$47.00

Actions Taken in FY10: The hydraulic oil is being recovered from the ground sporadically by pneumatic pumps and absorbent socks and the plume is being monitored semi-annually. The facility is for sale and the RP is looking to remove the facility building in order to do a removal of the hydraulic oil area. The VOC plume is being monitored semi-annually.

### BLALOCK TEXTILE MILL

Location: 200 MILTON RD JOANNA, SC

Description: Groundwater VOC plume onsite. FY09, site transferred from BoW to SARR.

Lead Designation: Responsible Party funded

Funds Expended in FY10: \$ 132.00 Total Site Expenditures: \$132.00

Actions Taken in FY10: The RP performed an assessment of the vertical and horizontal extent of the groundwater VOC plume and additional groundwater monitoring wells were installed.

### BRASWELL SITE

Location: 6268 BUSH RIVER RD NEWBERRY, SC

**Description:** Mobile home destroyed by fire and explosion related to the manufacturing of methamphetamine. Surrounded by pastureland and a large pond. Fire/Explosion took place Nov 17, 2008. DHEC and its contractor responded to the site to investigate the possibility of environmental contamination.

Lead Designation: State Funded

Funds Expended in FY10: \$ 558.00 Total Site Expenditures: \$10,062.00

Actions Taken in FY10: The Department updated its information on known RPs and continues to seek recovery of its response costs.

#### BROCKMAN CHRYSLER-PLYMOUTH SUZUKI

Location: 2750 LAURENS RD GREENVILLE, SC

**Description:** An auto dealership with groundwater contaminated with organics from an onsite paint/body shop.

Lead Designation: Responsible Party Funded Consent Agreement 94-08-HW 03/29/1994

Funds Expended in FY10: \$ 256.00 Total Site Expenditures: \$17,181.00

Actions Taken in FY10: All remediation has been completed. The site remains active because low levels of VOCs remain present in small concentrations slightly above Drinking Water Standards in one on-site monitoring well. Annual groundwater monitoring is required until all detected concentrations of VOCs in the groundwater are below and remain below Drinking Water Standards.

### **BUS TRANSFER STATION**

Location: 100 N LIBERTY ST SPARTANBURG, SC

Description: PCE, TCE, 1,2-DCA, cis-1,2-DCE. FY09, this site transferred from BoW to SARR.

Lead Designation: Responsible Party

Funds Expended in FY10: \$ 144.00 Total Site Expenditures: \$144.00

Actions Taken in FY10: In December 2009, the Department reviewed the 2009 Annual Corrective Action Effectiveness Report, which documents the concentrations of VOCs. As the down gradient monitoring well was destroyed, the Department recommended that the well be replaced. The injection of soybean oil appears to have stimulated the reductive dechlorination of Perchloroethylene (PCE) and Trichloroethene (TCE) in the groundwater plume. The Department has requested that an alternative remedial strategy plan be submitted because the concentrations for 1,2-Dichloroethane (1,2-DCA) and cis-1,2-Dichloroethene (cis-1,2-DCE) are no longer resulting in reduced concentrations.

### CALHOUN PARK AREA SITE

Location: CALHOUN @ CONCORD ST S CHARLESTON, SC

Description: A former manufactured gas plant and Ausonborough Homes, a public housing unit.

Lead Designation: Federal-lead

State funded

Funds Expended in FY10: \$ 499.00 Total Site Expenditures: \$37,722.00

Actions Taken in FY10: This site is being addressed under the Federal Superfund Program. The HWCF supported the Department's participation in several conferences with the Natural Resource Trustees and SCANA regarding natural resource damages. The Resource Compensation and Determination Plan were performed during FY10.

#### CARDINAL CHEMICAL CO

Location: 0.1 MI E OF INT OF SHOP RD & S BELTLINE COLUMBIA, SC

**Description:** Operating facility became unable to discharge to Publicly-Owned Treatment Works and exhausted onsite capacity for storage of processed waste and storm water.

Lead Designation: State & Federal Funded

Non-Responsible Party Voluntary Cleanup Contract 07-4740-NRP Non-Responsible Party Voluntary Cleanup Contract 09-5800-NRP Non-Responsible Party Voluntary Cleanup Contract 10-5800-NRP

Funds Expended in FY10: \$ 275.00 Total Site Expenditures: \$210,335.00

Actions Taken in FY10: The Department prepared for an upcoming meeting with an NRP interested in entering into the Voluntary Cleanup Program. The Department verified security was maintained with site visits, and confirmed storm water was not accumulating to the point of discharging onto the adjacent property.

### CAROLINA GRAVURE

Location: 1 MI ON COMMERCIAL DR FRM INT OF SC 6 LEXINGTON, SC

**Description:** A rotogravure printing facility from 1969-1990. The rotogravure process included the use of solvents and metal-based inks. From 1997-2001, the site was leased to Michelin for use as a tire warehouse.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 05-4707-RP

Funds Expended in FY10: \$ 1,697.00 Total Site Expenditures: \$4,821.00

Actions Taken in FY10: The Department provided comments to the Environmental Assessment Report and requested that the vertical and horizontal extent of contamination be defined in the soil due to the elevated concentrations of lead in the former septic system area. Additional groundwater assessment was required to aid in determining groundwater flow and to further delineate the extent of groundwater contamination. On July 15, 2009, Department approved the Work Plan. The additional environmental assessment consisted of six soil borings around the location of the former septic system and a previous soil sample location. All of the soil samples were analyzed for lead and reported below the EPA Region 9 Screening Levels for Residential and Industrial Standards. Three permanent groundwater wells were installed. Groundwater samples were analyzed for metals and results were below Maximum Contaminant Levels (MCLs). In December 2009, the Department requested re-sampling of the groundwater monitoring wells. The samples were to be analyzed for Volatile Organic Compounds (VOCs) and Target Analyte List metals (TALs). The January 7, 2010 Groundwater Sampling Report indicated no VOCs or metals were reported above MCLs. A Restrictive Covenant of the facility property was filed with the County of Lexington on June 30, 2010, which will restrict the future use of the property to industrial use only. The Department expects to close out the site in FY11.

#### CASTLEBRIDGE PROPERTIES

Location: 200 & 280 NATIONAL AVE SPARTANBURG, SC

**Description:** Pre-buy assessment found PCE, TCE in groundwater. Site consists of two buildings previously used for warehousing and manufacturing. Metal plating operation in one building. Both buildings contained industrial drycleaning processes.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 07-5712-RP

Funds Expended in FY10: \$ 340.00 Total Site Expenditures: \$6,373.00

Actions Taken in FY10: DHEC reviewed the June 29 and August 19, 2009 Remedial Investigation (RI), which summarized work performed during the first phase of the investigation. DHEC approved the RI Report on August 28, 2009. A December 2009 report on the installation of groundwater monitoring wells and other sampling activities was reviewed and DHEC recommended additional assessment to better determine the extent of VOCs in groundwater.

#### CLINTON MILLS-PLANTS 1 AND 2

Location: 600 ACADEMY ST CLINTON, SC

**Description:** Textile plant used 1,1,1-trichloroethane for a cleaning solvent and approximately 1531 gallons of waste 1,1,1-trichloroethane were used around railroad tracks and fence for weed control.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 02-5327-RP (Terminated:

RP bankruptcy)

Responsible Party Funded, Voluntary Cleanup Contract 05-5327-RP

Funds Expended in FY10: \$ 1,256.00 Total Site Expenditures: \$7,566.00

Actions Taken in FY10: A comprehensive Work Plan, which outlined the details of the RP's proposal to resample all groundwater, was approved by the Department and the implementation began on October 20, 2009. Sampling began in November 2009, and results indicated concentrations of 1,1-Trichloroethane

(TCA) and 1, 1- dichloroethylene (DCE) in two monitoring wells above Maximum Contaminant Levels (MCLs). Also, free product of Petroleum Hydrocarbon was observed in one monitoring well at a measurement of 0.02 feet of thickness. The Department anticipates receipt of a Work Plan to address the extent of contamination found in the two affected monitoring wells areas in FY11.

#### CMC RECYCLING

Location: 2308 TWO NOTCH RD LEXINGTON, SC

Description: Car grinding facility - VOCs in gw, mixing zone in place. FY09, site transferred from BoW

to SARR.

Lead Designation: Responsible Party funded

Consent/Mixing Zone Agreement (2003)

Funds Expended in FY10: \$ 1,186.00 Total Site Expenditures: \$1,186.00

Actions Taken in FY10: Due to an off-site pumping production supply well, the plume has been migrating. Supply well sampling was increased to monthly and a new receptor survey has been submitted to the Department. Currently, the RP is evaluating methods to regain hydraulic control of the plume due to the off-site pumping well. The Department has conducted several meetings with the RP.

### COASTAL LUMBER CO - CARMICHAEL TRACT

Location: 800 HULL RD MARION, SC

**Description:** Disposal site for Coastal Lumber Marion Sawmill. Demolition and CCA-treated wood were disposed. Arsenic and chromium was detected in soil and groundwater.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 04-5539-RP

Funds Expended in FY10: \$ 1,290.00 Total Site Expenditures: \$3,679.00

Actions Taken in FY10: The results of the June 4, 2009 groundwater sampling event indicated elevated detections of arsenic and lead in one monitoring well and lead in another well; all of which exceeded the Maximum Contaminant Levels (MCLs). On August 13, 2009, the Department requested additional assessment of the groundwater. The RP submitted a Work Plan on September 17, 2009, proposing the installation of four additional groundwater monitoring wells within and down gradient of the contaminant plume. The findings of the groundwater assessment indicated that arsenic and lead impacts to groundwater remain above MCLs in two monitoring wells. The RP requested that impacted soils be removed from any potential source areas before evaluating the site for Monitored Natural Attenuation (MNA) parameters. The Department approved such removal plans on January 6, 2010, of which activities are expected to take place in FY11.

#### COASTAL LUMBER CO - MARION SAWMILL SITE

Location: SC HWY 41 ALT & EAST ST MARION, SC

**Description:** Former pine sawmill with CCA wood treatment operation. Possible arsenic and chromium in soil & groundwater.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 04-5538-RP

Funds Expended in FY10: \$ 1,360.00 Total Site Expenditures: \$3,841.00

Actions Taken in FY10: On October 26, 2009, the Department approved the implementation of the submitted Work Plan to further define the horizontal and vertical extent of soil and groundwater impacts. The RP's proposal consisted of the installation of 25 soil borings in areas within and around the area of chromium impacted soils and the installation of five additional groundwater monitoring wells. The Department expects the submittal of a Remedial Investigation/Feasibility Study (RI/FS) Report in FY11.

### COLONIAL HEIGHTS PACKAGING

Location: EXIT 68 INTERCHANGE OF I-85 SPARTANBURG, SC

Description: Chlorinated solvents. Transfer from BOW.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 07-5647-RP

Funds Expended in FY10: \$ 463.00 Total Site Expenditures: \$2,266.00

Actions Taken in FY10: The Department reviewed the May 2009 and April 2010 Groundwater Monitoring Reports. All remediation has been completed and the site remains active because low levels of VOCs remain present in small concentrations slightly above Drinking Water Standards in one on-site monitoring well. Routine groundwater monitoring is required until all detected concentrations of VOCs in groundwater are below and remain below Drinking Water Standards.

### **COLUMBIA NITROGEN**

Location: W END OF MILFORD ST RT 26 CHARLESTON, SC

**Description:** The approx. 43-acre site was used for phosphate fertilizer manufacturing.

Lead Designation: Federal Lead

State-funded (NRDs)

Funds Expended in FY10: \$ 115.00 Total Site Expenditures: \$738.00

Actions Taken in FY10: This site is being addressed under the Federal Superfund Program. The HWCF supported the Department's participation in several conferences with the Natural Resource Trustees and Ashley II regarding natural resource damages and finalization of cleanup activities.

The site is not listed on the National Priorities List (NPL), but is considered to be an NPL-caliber site and is being addressed through the Superfund Alternative Approach. This approach uses the same investigation and cleanup process and standards that are used for sites listed on the NPL.

#### COLUMBIA ORGANIC CHEMICALS INC

Location: 1 BLK FRM INT OF TRUE ST & DRAKE AVE COLUMBIA, SC

**Description:** A closed specialty chemical manufacturer whose processes led to soil and groundwater contamination. Delineation of groundwater contamination is ongoing, while the remedy for addressing soil contamination, a protective cap, is currently being designed.

Lead Designation: State Funded

Responsible Party Funded Consent Agreement 91-10-SW, Incomplete 02/27/1991

Funds Expended in FY10: \$ 484.00 Total Site Expenditures: \$3,675,356.00

Actions Taken in FY10: The Department received a request to abandon a groundwater monitoring well located on property adjacent to the former facility, which was being cleared in anticipation of residential development, and the well in question was installed years ago by the Department to assess groundwater conditions surrounding the site. Based on data collected from both historical and recent sampling events, the Department determined the monitoring well is not located within the groundwater plume migrating from the site and the request to abandon the well was approved.

### **COLUMBIA WOOD PRESERVING**

Location: 2001 SHOP RD COLUMBIA, SC

**Description:** Site used by a wood treating/preserving company from 1949-1978. Owned by Norfolk Southern Railroad.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 10-5825-RP

Funds Expended in FY10: \$ 922.00 Total Site Expenditures: \$922.00

Actions Taken in FY10: DHEC's Site Assessment Section collected environmental data for submission to EPA. The Department negotiated with an RP, who had expressed an interest in entering into the Voluntary Cleanup Program. The Department performed an extensive site file review as to what future response investigation and onsite activities would be included in the contract's technical obligations for the RP and performed a Potentially Responsible Party search.

#### CONE MILLS CORP/UNION BLEACHERY PLANT

Location: 3335 OLD BUNCOMBE RD GREENVILLE, SC

**Description:** Former textile dyeing and finishing plant with hexavalent chromium, PCBs, and other metals in groundwater, sediment, surface water, and soil.

Lead Designation: State Funded

Funds Expended in FY10: \$ 48,723.00 Total Site Expenditures: \$693,122.00

Actions Taken in FY10: A July 2009 environmental sampling report summarizing the results of the sampling efforts was approved by DHEC on September 1, 2009. Preliminary work for the implementation of an asbestos survey was initiated in October 2009 and continued in May 2010. DHEC met with Greenville County officials on September 15, 2009; and on October 8, 2009, DHEC submitted a letter of support for Greenville County's application to EPA for a Brownfields Assessment Grant. DHEC and other Greenville County officials toured the site with a prospective purchaser on March 22, 2010.

### CONSO PRODUCTS

Location: 513 N DUNCAN BYPASS UNION, SC

**Description:** A VOC plume was discovered during routine pre-buy assessment in 2007. FY09, site transferred from BoW to SARR.

Lead Designation: Responsible Party funded, Mixing Zone Agreement

Funds Expended in FY10: \$ 132.00 Total Site Expenditures: \$132.00

Actions Taken in FY10: The RP initiated activities to delineate the plume prior to this review period. The facility property was then sold for development and the wells were abandoned for construction activities. During FY10, the RP installed four additional monitoring wells and surface water samples were collected. Semi-annual monitoring will continue.

### CONSOLIDATED SYSTEMS INC

Location: 650 ROSEWOOD DR COLUMBIA, SC

**Description:** A metal fabrication manufacturing facility.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 06-5671-RP

Funds Expended in FY10: \$ 963.00 Total Site Expenditures: \$7,106.00

**Actions Taken in FY10:** DHEC reviewed follow-up activities related to the Voluntary Cleanup Contract and requested additional methane and groundwater samples be obtained. On March 26, 2010, DHEC met with the property owner to locate the methane monitoring points.

### CREATEX MANUFACTURING CORP

Location: INT OF SC 9 & IRON ORE RD SPARTANBURG, SC

**Description:** Two unpermitted disposal areas at the Milliken plant contain drums, industrial waste and construction debris. Volatile Organic Compounds were found in soil and groundwater. Based on Remedial Investigation results, removal was the chosen remedy.

Lead Designation: Responsible Party Funded Consent Agreement 96-22-HW, Amended

05/07/97;05/28/1996

Funds Expended in FY10: \$ 490.00 Total Site Expenditures: \$24,924.00

Actions Taken in FY10: The Department approved the Annual Groundwater Monitoring Report and a Work Plan, which addressing additional offsite assessment to determine the extent of contamination.

#### CSX MCCORMICK TRAIN WRECK

Location: HWY 28 & STATE RD 62 MCCORMICK, SC

Description: Area of a train derailment; toluene, xylene, and benzene contamination present.

Lead Designation: Responsible Party Funded Consent Agreement 96-36-HW 10/01/1996

Funds Expended in FY10: \$ 452.00 Total Site Expenditures: \$32,255.00

Actions Taken in FY10: The Department reviewed the Annual Groundwater Monitoring Report that summarized the phytocover maintenance and the annual groundwater quality monitoring activities that occurred during December 2009. Phytosystem maintenance has resulted in a well-established ground cover and mature trees that can survive under normal precipitation rates of the Piedmont region without

irrigation. Groundwater quality data indicates the distribution of hydrocarbon constituents in shallow groundwater continues to be limited to the central portion of the area west of SC Highway 28. Toluene, ethyl benzene, and xylene (TEX) concentrations for down gradient wells remain below detection limits. Based on the data collected since the nitrate injection system shutdown, installation of the phytosystem, and site restoration activities, it is apparent that groundwater quality conditions remain stable and natural biodegradation processes are reducing hydrocarbon concentrations and controlling hydrocarbon migration in the groundwater.

#### CSX BRAMLETTE ROAD SITE

Location: 1000 W BRAMLETT RD GREENVILLE, SC

Description: Former MFG facility with an unpermitted LF. FY09, site transferred from BoW to SARR.

Lead Designation: Responsible Party Funded

Funds Expended in FY10: \$ 12.00 Total Site Expenditures: \$12.00

Actions Taken in FY10: On September 28, 2009, the Department met with the RP onsite and determined locations in the Reedy River where samples should be taken and discussed future actions with the RP. On March 9, 2010, the RP submitted a Corrective Action Plan (CAP), which outlines injecting oxygen release compound (ORC) in the area of MW-2. The groundwater and surface water continues to be monitored on a semi-annual basis.

### CUSTOM WORKS PLATING - INMAN SOUTH MAIN ST

Location: 18 S MAIN ST INMAN, SC

**Description:** Metal plating operation. Hazardous waste storage - chromic acid, nickel, zinc, and copper plating solutions, and caustic solutions.

Lead Designation: State Funded

Funds Expended in FY10: \$ 20,675.00 Total Site Expenditures: \$20,675.00

Actions Taken in FY10: The Department performed an emergency removal at this metal plating facility. The Department removed numerous containers and vats containing heavy metals and metal plating acid solutions. The Department continues to seek recovery of its costs.

#### CUSTOM WORKS PLATING-INMAN RD

Location: 511 INMAN RD LYMAN, SC

**Description:** Formerly housed a plating operation. Fire destroyed in 2000. Chromium from plating process on-site. Plating waste was dumped from a tote on a trailer to 10-12 miles of roadways near this site.

Lead Designation: State Funded

Funds Expended in FY10: \$ 1,357.00 Total Site Expenditures: \$567,453.00

Actions Taken in FY10: The Department performed an emergency removal at this metal plating facility. The Department removed numerous containers and vats containing heavy metals and metal plating acid solutions. The facility was abandoned and the property owner defaulted on her mortgage. Thereafter, the

property was sold at auction and was purchased by Federal Home Loan Mortgage Corporation (Freddie Mac); which declined DHEC's invitation to enter the Voluntary Cleanup Program to conduct additional assessment and cleanup. The Department continues to seek recovery of its costs.

### CYPRESS GROVE DEVELOPMENT SITE

Location: 501 CYPRESS GARDENS RD MONCKS CORNER, SC

**Description:** Planned residential development on property formerly used as a drag strip. Buried drums discovered when beginning construction.

Lead Designation: Responsible Party VCC 09-5820-RP

Funds Expended in FY10: \$ 1,949.00 Total Site Expenditures: \$1,949.00

Actions Taken in FY10: On December 1, 2009, the Department and AME Development Group, LLC entered into a Voluntary Cleanup Contract (VCC). DHEC reviewed several reports, pictures, surveys, and laboratory sampling results, which confirmed drums containing volatile organic wastes were buried onsite. The Work Plan that outlined the removal and assessment activities was approved by DHEC on December 4, 2009; and fieldwork also began in December 2009. DHEC visited the Site and observed some of the removal efforts on December 8, 2009.

### DALE OWEN SITE

Location: 250 WENTZKY RD ANDERSON, SC

**Description:** Dow Badische Plant (now owned by BASF Corporation) disposed of plant waste at this residential property without a permit. High concentrations of trichloroethene are in the groundwater and soil. BASF entered into an RP-VCC in 1998, but the VCC was terminated and BASF entered into a Consent Agreement in 2001.

Lead Designation: Responsible Party Funded 01-21-HW 06/26/2001

Funds Expended in FY10: \$ 112.00 Total Site Expenditures: \$211,563.00

Actions Taken in FY10: The Annual Groundwater Monitoring Report was reviewed by the Department.

### DARLINGTON COUNTY PRISON FARM

Location: 200 CAMP RD DARLINGTON, SC

**Description:** Former wood treatment operation where wood was dipped into a creosote pit. A prison is currently located on the site.

Lead Designation: Responsible Party Funded, Administrative Consent Agreement 92-43-SW

08/05/1992; Amendment 95-43-SW (07/10/95)

Funds Expended in FY10: \$ 932.00 Total Site Expenditures: \$32,727.00

Actions Taken in FY10: DHEC reviewed reports and provided comments to the RP relating to the groundwater monitoring conducted. DHEC has requested that additional sampling work be performed to mitigate residual soil contamination and eliminate the need to continue groundwater monitoring.

### **DELAVAN INCORPORATED**

Location: 1 MI S OF CITY LIMITS ON US 301 BAMBERG, SC

**Description:** RCRA permitted for storage of waste oils, naptha and perchloroethlene prior to shipment to reprocessing facility. No hazardous waste disposed on site. FY09, site transferred from BoW to SARR.

Lead Designation: Responsible Party Funded

Funds Expended in FY10: \$ 47.00 Total Site Expenditures: \$47.00

Actions Taken in FY10: Further assessment of the extent of the groundwater VOC plume was required as a newly installed private well on an adjacent property had detections of PCE contamination above Drinking Water Standards. The private well is not in use and the resident has been connected to public water.

### DETROIT BROACH COMPANY

Location: BUNCOMBE RD GREER, SC

**Description:** Company manufactures cutting tools. Groundwater beneath the site contains chlorinated solvents at levels exceeding Maximum Contaminant Levels.

Lead Designation: Responsible Party Funded Amended (11/14/96); Consent Agreement 94-55-HW

12/19/1994

Funds Expended in FY10: \$ 2,948.00 Total Site Expenditures: \$16,239.00

Actions Taken in FY10: The Department reviewed the 2009 Annual Groundwater Monitoring Report. Multiple rounds of annual groundwater sampling data collected reflected that all VOCs are now detected below Drinking Water Standards. This site has been released from further groundwater sampling and the monitoring wells have been abandoned.

### DONWAL

Location: 125 INDUSTRIAL PARK RD SUMMERVILLE, SC

**Description:** Site of former foam insulation manufacturing facility. Groundwater contaminated by chlorinated solvents.

Lead Designation: Responsible Party Funded Consent Agreement 95-28-HW 10/26/1995

Funds Expended in FY10: \$ 23,001.00 Total Site Expenditures: \$45,688.00

Actions Taken in FY10: Field investigation activities for the ongoing Remedial Investigation/Feasibility Study continued during FY10 and included monitoring well installation, groundwater monitoring and sampling, aquifer testing, leach field investigations, source area soil borings, surface water and sediment sampling, and soil gas sampling. Monthly progress reports were submitted as required by the Work Plan and by May 2010, all proposed field activities had been completed. The next submittal to the Department will be a draft Technical Memorandum, which will summarize the results of this investigation.

### DOWBRANDS INC

Location: 300 S MAIN ST MAULDIN, SC

**Description:** Former manufacturing facility, now warehousing. 22.46 acres. Soil contamination - PCE, TCE, Chloroform. GW contaminated with PCE, DCCE, & TCE. Possible off-site sources as well as potential on-site sources.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 09-5797-RP

Funds Expended in FY10: \$ 6,292.00 Total Site Expenditures: \$10,049.00

Actions Taken in FY10: A revised version of the Remedial Investigation (RI) Work Plan was approved. Soon after, work to implement the three phases of the plan began and several proposed modifications and amendments to the plan were approved by the Department. The RP has provided the Department with bimonthly progress reports as well as updates and data on each phase of the RI as it was completed. Adjustments and amendments to the RI have been discussed with and approved by the Department through each phase of the investigation. A final RI Report is anticipated in FY11.

### **DUCANE COMPANY**

Location: 118 W MAIN ST BLACKVILLE, SC

**Description:** Former manufacturing facility for gas grills, furnaces and air conditioners. Groundwater has VOC and petroleum contamination. FY09, site transferred from BoW to SARR.

Lead Designation: Responsible Party Funded

Funds Expended in FY10: \$ 47.00 Total Site Expenditures: \$47.00

Actions Taken in FY10: The site is presently on a semi-annual monitoring schedule. Contaminant levels are decreasing across the site with the exception of one area of which the Department has requested further assessment and anticipates the RP will be providing a Work Plan in FY11.

#### DUKE POWER - SPARTANBURG MGP SITE

Location: 684 N PINE ST SPARTANBURG, SC

**Description:** Possible tar, hydrogen sulfide, waste sludge, phenol, oil contamination. Former manufactured gas plant (MGP); currently a natural gas facility.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 01-5406-RP

Funds Expended in FY10: \$ 618.00 Total Site Expenditures: \$36,177.00

Actions Taken in FY10: The Annual Groundwater Monitoring Report was reviewed by the Department.

### **DUPONT EI DE NEMOURS & CO - BERKELEY**

Location: SC 9 E ENDS @ PLANT GATE OAKLEY, SC

**Description:** Wastewater sludge spray irrigated onto plant grounds @ 280 pounds/day. Hazardous waste disposed of at GSX in Pinewood. FY09, site transferred from BoW to SARR.

Lead Designation: Responsible Party Funded

Funds Expended in FY10: \$ 703.00 Total Site Expenditures: \$703.00

Actions Taken in FY10: The Department reviewed the 2009 Annual Sampling. Although the primary source areas have been remedied, several site-related constituents were detected in shallow groundwater above Risk-based Screening Levels. Shallow groundwater is not used on-site for potable or industrial uses nor have residential/industrial uses been identified down gradient of the site. The RP has installed a phytoremediation system designed to more aggressively attack the lingering, low-level contamination that exists in the shallow groundwater.

### **EFP PRODUCTS**

Location: 6247 CAMPBELL RD YORK, SC

Description: Site of metal plating facility where bedrock groundwater is impacted by chromium.

Lead Designation: Responsible Party Funded Consent Agreement 95-32-HW 11/30/1995; Amendment

Funds Expended in FY10: \$ 18,858.00 Total Site Expenditures: \$103,513.00

Actions Taken in FY10: After receiving the Feasibility Study Addendum, the Department completed its second evaluation of cleanup alternatives to address the chromium soil contamination. A Proposed Plan Addendum outlining the Department's preferred soil alternative was mailed to area residents and initiated a public comment period. After evaluating public comments, the Department selected a combination of insitu treatment alternatives to address both the soil and groundwater contaminated with chromium and began drafting the Record of Decision (ROD).

Also during this time, the Department continued to receive quarterly groundwater monitoring reports and began negotiating an amendment to the Consent Agreement for implementation of the remedial action and reimbursement of DHEC's past costs.

#### ELMORE (FRANK) SITE

Location: HWY 290 (609 & 613 E POINSETT ST) GREER, SC

**Description:** Drum disposal site and abandoned underground storage tank. Site has been subdivided and is now owned by two different property owners.

Lead Designation: State Funded

Funds Expended in FY10: \$ 35,754.00 Total Site Expenditures: \$989,908.00

Actions Taken in FY10: On November 30, 2009, DHEC officially took over ownership, operation, and maintenance of the groundwater pump and treat remedy. The Department became responsible in full for operating, maintaining, and monitoring the performance of the groundwater remedy in compliance with the Record of Decision and the Superfund State Contract with EPA. Without the operation of the groundwater

remedy, groundwater contamination exceeding applicable surface water standards would discharge into Wards Creek.

### ESTECH GENERAL CHEMICALS CORP

Location: SHOP RD @ RR/TRACK NEAR INT OF ASSEMBLY COLUMBIA, SC

**Description:** This company mixed pesticides between 1958-70. Between 1970-75 over 50 drums containing parathion were reportedly disposed of in an on-site landfill.

Lead Designation:

Funds Expended in FY10: \$ 599.00 Total Site Expenditures: \$4,299.00

Actions Taken in FY10: On October 14, 2009, Department assisted EPA's Science and Ecosystem Support Division (SESD) during an attempt to locate potential buried material via Ground Penetrating Radar.

#### FIBER INDUSTRIES INC

Location: INT I-85 & WOODRUFF RD GREENVILLE, SC

**Description:** Site of former textile manufacturing company that utilized on-site landfill. Landfill contained textile manufacturing waste, asbestos, construction materials, oily wastes, solvents, acid, and a waste impoundment.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 00-4782-RP

Responsible Party Funded Administrative Consent Order 90-09-SW 01/23/1990

Funds Expended in FY10: \$ 1,262.00 Total Site Expenditures: \$50,910.00

Actions Taken in FY10: Two Semi-annual Progress Reports were reviewed in July 2009 and January 2010. The groundwater pump and treat system was turned off because concentrations were reaching the site's remedial goals. Groundwater monitoring will continue until concentrations in all wells are below the groundwater standards.

#### FIBER INDUSTRIES/PALMETTO PLANT

Location: MCIVER RD 1 MI FROM INT HWY 52 DARLINGTON, SC

**Description:** Chrome sludge treatment facility (storage lagoon and drying beds). Storage facility for organic, inorganic and solvent wastes. FY09, site transferred from BoW to SARR.

Lead Designation: Responsible Party Consent Agreement 93-046-W

Funds Expended in FY10: \$ 1,522.00 Total Site Expenditures: \$2,776.00

Actions Taken in FY10: After review of the 2009 Groundwater Corrective Action Report, the Department requested a follow-up report in May 2010, to provide additional information, clarification and modifications to the corrective action. The Report proposed, and the Department concurred with the recommendation, to continuously operate several extraction wells because free product readily accumulates in the Phase II boiler area. The Department requested that additional surface water sample locations be added to the sampling schedule. Additional adjustments were made to the corrective action systems in

place for the Inner Tier Recovery System at the closed emergency spill pond and the Western Tier Recovery System to enhance performance.

### FLEXIBLE TECHNOLOGIES

Location: CARWELLYN RD ABBEVILLE, SC

**Description:** Chemical burial site as defined by industry official. Quantities & amounts are unknown. Cleaned up January 1990. FY09, site transferred from BoW to SARR.

Lead Designation: Responsible Party Funded

Funds Expended in FY10: \$ 621.00 Total Site Expenditures: \$903.00

Actions Taken in FY10: The Department met with facility representatives regarding the site's condition.

### FLORENCE MGP SITE

Location: 553 N IRBY ST FLORENCE, SC

**Description:** Site of former Manufactured Gas Plant at which soils are contaminated with tar and fuel; groundwater is contaminated with Volatile Organic Compounds and Semi-Volatile Organic Compounds.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 00-5396-RP

Funds Expended in FY10: \$ 1,517.00 Total Site Expenditures: \$32,174.00

Actions Taken in FY10: The Department reviewed the baseline Groundwater Monitoring Report following the removal action and a Groundwater Sampling and Analysis Plan. Several new monitoring wells were installed for the purpose of long-term groundwater monitoring.

#### FORMER COOPER HAND TOOLS SITE

Location: 815 STATE RD CHERAW, SC

**Description:** Company designed and manufactured small hand tools, electroplating, tinning, & wastewater treatment. VOCs in soil and groundwater, chlorinated solvents.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 04-5582-RP

Funds Expended in FY10: \$ 3,169.00 Total Site Expenditures: \$10,707.00

Actions Taken in FY10: The Supplemental Remedial Investigation Report and Investigation Near Monitoring Well 16 Work Plan were approved by the Department in October 2009. A Supplemental Investigation Report was reviewed in December 2009. Additional monitoring wells were installed in February 2010 to determine the extent of the groundwater contamination and to determine if groundwater contamination is migrating offsite.

### GEORGIA CHEMICAL WORKS

Location: HWY 17 @ EDISTO RIVER PON PON, SC

Description: Former superphosphate fertilizer producer. Elevated arsenic and lead in soil.

Lead Designation: Federal-lead

State Funded (NRDs)

Funds Expended in FY10: \$ 198.00 Total Site Expenditures: \$6,640.00

Actions Taken in FY10: This site is being addressed under the Federal Superfund Program. The HWCF supported the Department's participation in several conferences with the Natural Resource Trustees and ExxonMobil Corporation regarding natural resource damages and the need to file a resource damages claim.

### **GRACE WR & CO AG CHEM GROUP**

Location: INT OF HARMAN & ELGIN ST CHARLESTON, SC

**Description:** Superphosphate fertilizer manufacturing facility that also blended various pesticides for agricultural use. Soil, groundwater, surface water, and sediment contaminated with pesticides, metals, and Volatile Organic Compounds.

Lead Designation: Responsible Party Funded Administrative Consent Agreement 89-34-SW, S

11/13/1989

Funds Expended in FY10: \$ 482.00 Total Site Expenditures: \$93,879.00

Actions Taken in FY10: The Wetland Mitigation 2009 Annual Monitoring Report and the Groundwater and Surface Water Sampling Report were reviewed. Monitoring will continue consistent with the previously approved Monitoring Plan.

#### HB ROBINSON STEAM ELECTRIC PLANT

Location: 3512 LAKESIDE DR HARTSVILLE, SC

**Description:** A nuclear power plant and primary regulatory Agency is the Nuclear Regulatory Comm. Monitoring gwtr. FY09, site transferred from BoW to SARR.

Lead Designation:

Funds Expended in FY10: \$ 260.00 Total Site Expenditures: \$260.00

Actions Taken in FV10: The Department reviewed data, a Groundwater Monitoring Plan, Site Conceptual Model, and Receptor Survey. The Receptor Survey shows no potential receptors downgradient of the facility.

### HEALTH-TEX INC

Location: 276 FOSTER ST COWPENS, SC

**Description:** Former textile manufacturing facility. Soil and groundwater contaminated with perchloroethene. Onsite disposal area. The site was an EPA Brownfield Pilot Project and a Targeted Brownfield Assessment site.

Lead Designation: Responsible Party Funded Consent Agreement 03-24-HW 08/19/2003

Funds Expended in FY10: \$ 973.00 Total Site Expenditures: \$162,149.00

Actions Taken in FY10: The Department performed a Potentially Responsible Party (PRP) search, which includes title search activities, GIS mapping, research of PRP corporate filings and Responses to Information Requests, and site visits to confirm location and boundaries.

### **HEBRON DRIVE/CONSOLIDATED FREIGHTWAYS**

Location: 3225 SUNSET BLVD WEST COLUMBIA, SC

**Description:** Groundwater contamination. PCE in groundwater above the MCL. Source of the PCE is probably from offsite.

Lead Designation: State Funded

Funds Expended in FY10: \$ 196,156.00 Total Site Expenditures: \$203,414.00

Actions Taken in FY10: The Department performed a Potentially Responsible Party (PRP) search, which included title search activities and GIS mapping. The Department sampled several private drinking water wells along Hebron Drive to determine if there were any impacts from the up gradient source areas. A public meeting was held in June 2009 to inform the public that VOC contamination was detected in two drinking water wells above the Drinking Water Quality standards. The two affected property owners were provided bottle water until the long-term remedy could be put into place. The Department proposed to run a water line down Hebron Drive from US Highway 378 to Leaphart Road. The residents, who were not affected by the contamination, did not want to be tapped on to city water and requested that the design for the water line be altered to tap on just the affected residents, and not extend all the way to Leaphart Road. The Department prepared a design for the installation of the water lines and installation began in November 2009. The residents were notified that the lines had passed inspection and were ready to be placed into operation on March 11, 2010. In January 2010, the Department began an investigation into the source of the contaminated drinking water wells. Groundwater samples were collected from the affected residents' properties and from industrial areas immediately up gradient of the residences. Groundwater assessment activities were completed in May 2010, and a Final Report was reviewed and approved.

#### **HEWITT FARM**

Location: 0.5 MILE N OF CO RD 64 ON UNNUMBERED RD ROWESVILLE, SC

**Description:** Farm area where in-ground mixing of spent sulfuric acid and lime was conducted to produce a "fertilizer."

**Lead Designation:** Responsible Party Funded, Voluntary Cleanup Contract 10-5084-RP

Responsible Party Funded 97-32-HW 12/18/1997

Funds Expended in FY10: \$ 4,398.00 Total Site Expenditures: \$11,902.00

Actions Taken in FY10: The Department negotiated with an RP, who had expressed an interest in entering into the Voluntary Cleanup Program. In such, the Department performed an extensive site file review as to what future response investigation and onsite activities would be included in the contract's technical obligations for the RP and performed a Potentially Responsible Search. The Department anticipates a contract will be executed in FY11.

#### HITACHI ELECTRONIC DEVICES

Location: 575 MAULDIN RD GREENVILLE, SC

**Description:** Site of former television picture tube manufacturing facility. Soil and groundwater contaminated with trichloroethene due to spills and leaks.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 97-5303-RP

Funds Expended in FY10: \$ 7,703.00 Total Site Expenditures: \$44,081.00

Actions Taken in FY10: In conjunction with the Remedial Investigation Report currently under review by the Department, a July 2009 Feasibility Study was submitted. Remedial action was determined necessary in the shallow subsurface soils in the former trichloroethylene (TCE) reclamation tank area and in both onand off-site groundwater. Various alternatives were identified; however, the Department generated numerous comments and questioned sections of the study, most specifically the site's ability to attain a favorable pH required for successful implementation of several of the remedial alternatives identified. DHEC met with the RP to discuss these comments; and an additional pilot testing will be conducted to evaluate pH adjustment, injectate delivery methods, and additional in-situ treatment alternatives. The Feasibility Study will be revised after the pilot studies are completed. Also during this time, the pump and treat system along the southern property boundary continued to operate and remove volatile organic compounds (VOCs) from the groundwater. Since being placed in full operation in January 2007, the system has treated approximately 2.2 million gallons of groundwater. The estimated cumulative mass of VOCs removed by the system is 590 pounds. When considering the former soil vapor extraction system and in-situ thermal desorption processes, the estimated total amount of VOCs removed to date totals 6.75 tons. This pump and treat system as well as quarterly monitoring will continue until a final remedy is selected.

### HOECHST CELANESE / KOSA / INVISTA

Location: 1551 SHAW RD WOODRUFF, SC

**Description:** Several groundwater plumes with detections of VOCs, 1,4 Dioxane and DowTherm A. FY09, site transferred from BoW to SARR.

Lead Designation: Responsible Party Funded

Funds Expended in FY10: \$ 2,320.00 Total Site Expenditures: \$2,320.00

Actions Taken in FY10: Remediation is on-going in two areas. The Department met with the RP to discuss path forward and data gaps. An up-to-date receptor survey was conducted and further assessment was proposed.

### **HWY 521 SUMTER ASBESTOS DUMP SITE**

Location: HWY 521 S SUMTER, SC

**Description:** Asbestos dump site along Highway 521. Approximately 250 bags of asbestos waste and

small amount of soils were removed under criminal investigation.

Lead Designation: State Funded

Funds Expended in FY10: \$ 8,092.00 Total Site Expenditures: \$8,092.00

Actions Taken in FY10: The Department hired a contractor to remove and properly dispose of asbestos containing materials that were improperly disposed along the roadside.

### **I-85 DISTRIBUTION CENTER**

Location: NW INTERSTATE OF 185 AND SIGBEE RD SPARTANBURG, SC

**Description:** Former textile manufacturing facilty. Soil, groundwater, and surface water contaminated with perchloroethene (PCE).

Lead Designation: State-lead

Responsible Party Funded ,Civ Action #7:03-0805-26, Consent Decrees (2 CDs on

1/12/05, 1 CD on 3/9/05)

Funds Expended in FY10: \$ 72,055.00 Total Site Expenditures: \$2,416,031.00

Actions Taken in FY10: On December 10, 2009, the Department provided notice of a Demand For Payment to an RP, which seeks recovery of its past response costs. Operation of the stream sparging system continued during FY10. The monthly Discharge Monitoring Reports and the Annual Monitoring Report were reviewed and approved by the Department.

### INDUSTRIAL CHEMICAL CO LANDFILL

Location: OFF US 21-N 1/2 MILE FROM S-465 ON RT. CATAWBA, SC

**Description:** Permitted industrial landfill that accepted still bottoms from the companies' incinerator located in Rock Hill. Now a RCRA permitted post-closure landfill.

Lead Designation: Federal-lead

State Funded

Funds Expended in FY10: \$ 2,284.00 Total Site Expenditures: \$2,986.00

Actions Taken in FY10: Due to the poor condition of the landfill cap, EPA performed work at the site. EPA requested DHEC identify state statutes or regulations that were applicable to a removal action. DHEC responded to this request on February 25, 2010. On March 10, 2010, EPA issued an Action Memorandum, and the repair work was completed on May 18, 2010.

#### INDUSTRIAL DRIVE SITE

Location: 341 INDUSTRIAL DR LEXINGTON, SC

**Description:** Originally part of the South Lake Drive Site, but determined to be separate contamination.

Volatile Organic Compounds detected in soils and groundwater.

Lead Designation: Responsible Party Funded, Consent Agreement 00-34-HW

State Funded

Funds Expended in FY10: \$ 6,632.00 Total Site Expenditures: \$77,692.00

Actions Taken in FY10: The Additional Assessment Activities Work Plan, which the Department approved in FY09, was implemented in early FY10. An additional groundwater monitoring well was installed and all existing monitoring wells were sampled. Due to an unexpected detection of site-related groundwater contamination in an on-site background well, the Department agreed to an expanded sampling schedule. The expanded schedule included the collection of groundwater elevation data quarterly and two rounds of additional groundwater data to be collected in FY10. Reports were reviewed after each measuring and sampling event. The data from the new monitoring well did show that the extent of contamination of the groundwater plume has not migrated to that area.

#### INDUSTRIAL METAL PROCESSING/HAMPTON AVE

Location: 1326 HAMPTON AVE EXT GREENVILLE, SC

**Description:** Scrap metal yard with polychlorinated biphenyls (PCBs), arsenic, and lead in soils. Copper present in surface water at property boundary.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 99-5358-RP

Funds Expended in FY10: \$ 252.00 Total Site Expenditures: \$9,069.00

Actions Taken in FY10: On November 5, 2009, the Department reviewed an Assessment Report documenting the results of the previously approved Work Plan. Two groundwater monitoring wells were installed, sampled, and analyzed for Resource Conservation and Recovery Act (RCRA) metals. All metals detected in the groundwater samples were below Maximum Contaminant Levels (MCLs). In addition, three direct push borings were advanced to a depth of 20ft below ground surface approximately in the location of the former closure samples. PCBs were detected in soil samples SB-1 and SB-3 at concentrations above industrial screening levels. On December 8, 2009, the Department requested another round of groundwater sampling to ensure that the results were consistent with the previous sampling event. The March 15, 2010 Groundwater Sampling Report indicated that arsenic was above MCLs in one monitoring well that previously had not detected arsenic. The Department required that re-sampling be performed on the two monitoring wells as well as the installation of a third monitoring well on the southeastern portion of the site for Target Analyte List (TAL) metals and Polychlorinated Biphenyls (PCBs). The Department expects the submittal of the field activities results in FY11.

#### INSTEL POWER SERVICES

Location: 303-A GREER DR SIMPSONVILLE, SC

Description: 3.98-acre site with soil, groundwater and surface water contamination

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 06-5675-RP

Funds Expended in FY10: \$ 2,759.00 Total Site Expenditures: \$5,361.00

Actions Taken in FY10: DHEC provided comments to groundwater plume investigation reports.

#### IVAX INDUSTRIES INC

Location: 1880 LANGSTON ST ROCK HILL, SC

Description: Abandoned chemical site with shallow groundwater contaminated by chlorinated VOCs.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 02-5416-RP, Amendment

(03/30/10)

Funds Expended in FY10: \$ 6,172.00 Total Site Expenditures: \$3,581.00

Actions Taken in FY10: In August 2009, additional groundwater monitoring wells were installed adjacent the facility and sampled to determine the nature and extent of contamination. DHEC observed some of the sample collection efforts on August 4, 2009. The remedial investigation and the Interim remedial cleanup options were approved on December 18, 2009. DHEC and IVAX representatives met on January 20, 2010, to discuss the current site conditions, proposed interim remedial measures, and the current regulatory status. Outstanding issues related to the risk assessment and the feasibility study were resolved on February 9, 2010. The public notice announcing the IVAX Proposed Plan was published in Rock Hill's The Herald in March 2010. An Interim Remedial Action Record of Decision (ROD) was issued March 29, 2010. The ROD states the interim action will include contaminant source control via a groundwater extraction well and interceptor trench, and contaminant source treatment by injecting an oxidant that destroys volatile organic contamination. On March 30, 2010, an Amendment to the original Voluntary Cleanup Contract was executed by IVAX, which provided reimbursement of a portion of the Department's past costs of response. Installation of the remedy began in May 2010. DHEC observed the installation of the remedy on May 11, 2010.

#### J&H SMITH MANUFACTURING CO

Location: 114 W PEARL ST LAMAR, SC

Description: Site consist of metal cutting, and painting operation. GW is cont. w/VOC's.

Lead Designation: State Funded

Funds Expended in FY10: \$ 29,475.00 Total Site Expenditures: \$30,051.00

Actions Taken in FY10: The Department went door-to-door area and visited residents, explained known site conditions, and obtained access agreements to certain residents' property in order to install monitoring wells. Further, the Department also kept The Town of Lamar representative informed of the site's conditions and activities. In an effort to determine the full extent of groundwater contamination, the Department installed 30 temporary groundwater monitoring wells and 66 groundwater samples were collected and the full extent of the groundwater plume was mapped. The Department requested EPA's assistance in collecting soil gas samples from over the area of the mapped groundwater plume to ensure that vapor intrusion is not an environmental risk to the area residents. EPA agreed to perform this task and work should begin in FY11.

#### JACOB'S MANUFACTURING

Location: 100 JACOBS RD SENECA, SC

Description: Facility manufactures drill chucks. Groundwater on and off-site impacted with TCE from

facility spills and leaks. FY09, site transferred from BoW to SARR.

Lead Designation: Responsible Party funded

Funds Expended in FY10: \$ 438.00 Total Site Expenditures: \$438.00

Actions Taken in FY10: In July 2009, the RP submitted a Semiannual Monitoring Report which documented the sampling results of recent vacuum recovery extraction events. The Department determined that there were no long-term beneficial effects from the vacuum recovery events. On July 28, 2009, the parent company of Jacobs Manufacturing, Danaher Corporation notified the Department that the facility was closing. The RP provided a Work Plan, which was approved by the Department on March 18, 2010. On March 28, 2010, the Department requested that additional soil and groundwater assessment be conducted. A Soil and Groundwater Assessment Report, which evaluates sources of groundwater contamination, identified potential sources as the areas around the heat treatment room, the wastewater lagoon, and the irrigation field. An Assessment Plan is anticipated in FY11.

#### **JESCO**

Location: 235 E INDUSTRIAL PARK BLVD FLORENCE, SC

**Description:** Former manufacturer of foam insulation utilizing a urea-formaldehyde reaction. Site closed for ~1 year and contained improperly stored drums of hazardous chemicals.

Lead Designation: State Funded

Funds Expended in FY10: \$ 456.00 Total Site Expenditures: \$346,425.00

**Actions Taken in FY10:** The Department performed an emergency removal action and a Potentially Responsible Party (PRP) search to locate those responsible and liable for the site's conditions and to seek recovery of DHEC's costs of responding to the site conditions.

#### JOHN DEERE PLATING SHOP

Location: 306 S BUNCOMBE RD GREER, SC

**Description:** Serious groundwater & offsite contamination, including discharges to surface waters and air discharges into office buildings. EPA did removal of spill on 01/24/99. FY09, site transferred from BoW to SARR.

Lead Designation: Responsible Party funded

Funds Expended in FY10: \$ 1,523.00 Total Site Expenditures: \$3,042.00

Actions Taken in F¥10: The Department reviewed semi-annual sampling data for groundwater and quarterly sampling data for surface water contamination.

#### JOSLYN CLARK CONTROLS

Location: 2013 W MEETING ST LANCASTER, SC

**Description:** Chlorinated solvents in gwtr. FY09, site transferred from BoW to SARR.

Lead Designation: Responsible Party funded

Funds Expended in FY10: \$ 75.00 Total Site Expenditures: \$75.00

Actions Taken in FY10: A Soil Assessment Report was reviewed. The Department requested a formal Groundwater Assessment Plan after 7 out of 34 soil samples analyzed were found to have levels of Trichloroethlene (TCE) and Tetrachloroethylene (PCE) above the EPA Region 9 Screening Levels. A revised Groundwater Assessment Plan was approved for the installation of seven groundwater monitoring wells.

#### KERR MANUFACTURING PLANT

Location: SCHOOL ST 1/3 MILE W OF HWY 276 W TRAVELERS REST, SC

**Description:** Facility contained a fully stocked laboratory. The laboratory contained potentially hazardous wastes, flammable liquids and several holding tanks of unknowns.

Lead Designation: Responsible Party funded

Funds Expended in FY10: \$ 310.00 Total Site Expenditures: \$334,179.00

Actions Taken in FY10: In August 2009, the RP submitted the 2009 Annual Groundwater Sampling Report, which summarizes the work performed in accordance with the Lagoon Closure Plan for the Inactive Wastewater Lagoons. Analytical results indicated 1, 4 dichlorobenzene (a major ingredient in urinal cakes) was present in the groundwater sample collected down gradient from a sanitary sewer line.

#### **KINGS LABORATORY INC**

Location: 1/4 MI E OF I-77 N OF BLYTHEWOOD RD BLYTHEWOOD, SC

**Description:** Former specialty chemical company with groundwater contamination.

Lead Designation: Responsible Party Funded Administrative Consent Order 90-18-SW, W, 03/26/1990

Funds Expended in FY10: \$ 3,949.00 Total Site Expenditures: \$45,288.00

Actions Taken in FY10: The RPs began implementation of the Work Plan activities for groundwater remediation. Additional temporary monitoring wells were installed in early FY10 and a report of that data was reviewed. Also, an application for the necessary underground injection control permit was issued. Injection for the purpose of remediation of groundwater began at the end of FY10 and a report of the activities will be given to the Department for review in FY11.

#### KOPPERS CO/TREATING PLANT

Location: #3 BRASWELL ST CHARLESTON, SC

Description: Large wood treatment plant that used creosote, pentachlorophenol, and chromated copper

arsenate (CCA).

Lead Designation: Federal-lead

Responsible Party Funded 99-15-HW 04/01/1999

State funded (NRDs)

Funds Expended in FY10: \$ 6,157.00 Total Site Expenditures: \$163,922.00

Actions Taken in FY10: This site is being addressed under the Federal Superfund Program. The HWCF supported the Department's participation in several conferences with the Natural Resource Trustees and Beazer East regarding natural resource damages. DHEC performed several site visits and participated in conferences discussing potential compensation for related resource damages.

#### LANXESS FACILITY

Location: 730 N ANDERSON RD ROCK HILL, SC

Description: Former manufacturing facility for Bayer.

Lead Designation: Responsible Party funded

Funds Expended in FY10: \$ 2,696.00 Total Site Expenditures: \$2,696.00

Actions Taken in FY10: The RP performed additional assessment to determine off-site migration, to evaluate the potential for vapor intrusion offsite, and to monitor for potential discharge to surface water bodies in the path of the plume. In August 2009, the RP provided a Corrective Action Plan (CAP) which contained an evaluation of potential groundwater remedial options. Currently, a Soil Vapor Extraction System (SVE) is operational in the former sump area, which appears to be the main source of the contamination. Additional pilot studies are forthcoming to determine the effectiveness of expanding the system.

### LEXINGTON COMPOST LANDFILL TOWN OF

Location: 374 RAILROAD AVE LEXINGTON, SC

**Description:** Old town dump approximately 10 acres used of the 22.72 acres tract. Household garbage, maybe industrial waste, but town claims not much industry around when dump was used. Closed about 30 years ago.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 07-5450-RP

Funds Expended in FY10: \$ 391.00 Total Site Expenditures: \$1,998.00

Actions Taken in FY10: The Department reviewed the March 6, 2009 Remedial Investigation Report. The Department approved the abandonment of two onsite wells and informed the RP that the technical obligations outlined in the VCC has been completed. The Department will provide a certificate of completion upon receiving a formal request in FY11.

#### LINDAU CHEMICAL

Location: 0.5 MI FROM OLYMPIA AVE ON GRANGY LN COLUMBIA, SC

**Description:** Specialty organic chemical manufacturer, site consists of two leaching ponds, drum storage, spills & leaks from distillation processors, and a wastewater plant. FY09, site transferred from BoW to SARR.

Lead Designation: Responsible Party funded

Funds Expended in FY10: \$ 47.00 Total Site Expenditures: \$47.00

Actions Taken in FY10: The Department reviewed semi-annual monitoring data.

### LOVE SPRINGS/PIEDMONT INDUSTRIAL SERVICE

Location: 0.8 MI FROM CO RD 39 ON CO RD 42 GAFFNEY, SC

Description: Approximately 304 drums and several soil piles were removed from the Site.

Lead Designation: Responsible Party Funded, Administrative Consent Order 89-38-SW 11/27/1989

Funds Expended in FY10: \$ 966.00 Total Site Expenditures: \$42,493.00

Actions Taken in FY10: The Department reviewed the Annual Monitoring Report and the groundwater monitoring will continue until the groundwater standards are met.

#### MACALLOY CORPORATION

Location: 1800 PITTSBURGH AVE CHARLESTON, SC, SC

**Description:** Ferro-chrome alloy producer using submerged electric arc furnaces. Chromium contamination from air pollution (precip. dust & tower sludge)

Lead Designation: Federal-lead

State Funded (NRDs)

Funds Expended in FY10: \$ 827.00 Total Site Expenditures: \$40,363.00

Actions Taken in FY10: This site is being addressed under the Federal Superfund Program. The HWCF supported the Department's participation in several conferences with the Natural Resource Trustees and Conoco/Phillips regarding natural resource damages. During FY10, DHEC assisted in the development of the Resource Compensation Determination Plan (RCDP) and provided public notice of the draft RCDP.

#### MARBON ASSOCIATES

Location: 603 MAIN ST NEW ELLENTON, SC

Description: Analytical lab waste disposed of in a septic tank.

Lead Designation: Responsible Party Funded Administrative Consent Agreement 91-26-SW

04/22/1991

Funds Expended in FY10: \$ 1,384.00 Total Site Expenditures: \$12,926.00

Actions Taken in FY10: In August 2009, various DHEC program areas met with one of the site's real property owners and discussed environmental concerns with his property. Sampling results indicated that hazardous substances were present in three area septic tanks. The Department determined that these three septic tanks and two other septic tanks be pumped out, waste disposed properly, and the tanks abandoned. Further, the Department requested that all monitoring wells be sampled and a direct-push groundwater sample be taken in the vicinity of one tank. On February 23, 2010, the Department approved a field sampling activities proposal outlining the details of the investigation. The Department expects the groundwater monitoring report in FY11.

### MARSH LUMBER

Location: 119 6TH AVE E PAMPLICO, SC

**Description:** PCP groundwater plume resulting from wood treatment activities. FY09, site transferred from BoW to SARR.

Lead Designation: Responsible Party funded

Funds Expended in FY10: \$ 47.00 Total Site Expenditures: \$47.00

Actions Taken in FY10: The RP performed further assessment and conducted a Bio-Sparge pilot test with a recommendation to continue the pilot study for six to 12 more months. The Department agreed.

#### MCELVEEN PROPERTY

Location: 6 - 14 BARTLETTE ST SUMTER, SC

Description: Former gas station/automotive garage. Transfer from UST.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 06-5661-RP

Funds Expended in FY10: \$ 43.00 Total Site Expenditures: \$1,820.00

Actions Taken in FY10: On February 18, 2010, the Department requested that the RP begin implementation of the approved Revised Remedial Investigation Study Work Plan approved by the Department on February 19, 2009. Field activities began on March 15, 2010. The Department expects the submittal of a Remedial Investigation Report in FY11.

#### MICHAEL MOORE DUMP

Location: Seaboard Rd; 1 mile west of county line.

Description: Unpermitted dumpsite, burn area, C&D refuse, chemical dumping suspected

Lead Designation: State Funded

Funds Expended in F¥10: \$ 2265.20 Total Site Expenditures: \$2265.20

Actions Taken in FV10: The Department's contractor performed assessment and cleanup activities.

### MOORE BUSINESS FORMS SITE

Location: 1415 EMERALD RD GREENWOOD, SC

**Description:** Transferred project from Bureau of Water to VCP. Former printing facility with solvent contamination in groundwater. FY09, site transferred from BoW back to SARR.

Lead Designation: Oversight Contract 09-5678-OC (01/28/09), Amended (03/09/09)

Funds Expended in FY10: \$ 202.00 Total Site Expenditures: \$1,849.00

Actions Taken in FY10: As required by the Oversight Contract, the Bona Fide Prospective Purchaser submitted a Work Plan in July 2009 which was not approved by the Department. A Work Plan to install five groundwater monitoring wells was approved. Based on the analytical results, it confirmed that groundwater was impacted with chlorinated solvents and groundwater delineation was requested. An Assessment Summary Report is under review. Additional site assessment has been completed by the Bona Fide Prospective Purchaser and the Department anticipates the results of the assessment to be provided to the Department in FY11.

The Department invited two other PRPs to enter into the Voluntary Cleanup Program; however, both declined.

#### MTD PRODUCTS INC

Location: US HWY 521 MANNING, SC

**Description:** Manufacturing facility used for production of small appliances; later used for manufacture of brake friction componenets. Chlorinated solvents in gw. BOW has ongoing groundwater remediation at site. FY09, site transferred from BoW to SARR.

Lead Designation: Responsible Party funded

Funds Expended in FY10: \$ 2,120.00 Total Site Expenditures: \$2,879.00

Actions Taken in FY10: In November 2009 and May 2010, the RP provided Semiannual Remediation Monitoring Reports, which among other things, purports the effectiveness of the iron filings reaction wall as a barrier in preventing Trichloroethene (TCE), Dichloroethylene (1,2-DCE), and vinyl chloride from migrating off-site via a groundwater plume. In order to assure that the Reports are complete, the Department met with the RP on multiple occasions seeking verification that the contaminants are not migrating around the barrier wall and discussed TCE concentrations in the surface water above applicable standards.

#### NEW MILLENNIUM BUILDING SYSTEMS

Location: 2527 E CEMETARY RD FLORENCE, SC

**Description:** Operating steel fabricator with buried lead paint waste containers. Enforcement referral transferred to VCP.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 10-5682-RP

Funds Expended in FY10: \$ 1,794.00 Total Site Expenditures: \$2,435.00

Actions Taken in FY10: The Department continued negotiations with an RP interested in entering the Voluntary Cleanup Program and the Department anticipates the contract will be finalized in early FY11.

#### NYTRONICS COMPONENTS GROUPS INC

Location: 700 ORANGE ST DARLINGTON, SC

**Description:** A former electronics manufacturing facility with soil, sediment, groundwater, and surface water contamination from polychlorinated biphenyls, volatile organic compounds, metals, and pesticides.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 99-5124-RP

Funds Expended in FY10: \$ 4,894.00 Total Site Expenditures: \$80,878.00

Actions Taken in FY10: The facility buildings were removed and the western drainage ditch excavated and restored as an interim remedial measure. DHEC reviewed reports for the interim removal measures and additional soil investigation work.

#### OCONEE NUCLEAR PLANT

Location: Seneca, SC

Description: Radionuclides. FY09, site transferred from BoW to SARR.

Lead Designation: Responsible Party Funded

Funds Expended in FY10: \$ 553.90 Total Site Expenditures: \$553.90

Actions Taken in FY10: The Department reviewed sampling data and requested a Groundwater Monitoring Plan. The Department and the RP discussed monitoring procedures and technical issues. DHEC approved the installation of a new groundwater recovery well that will be used for remediation purposes.

#### OLD ORCHARDS MEADOWS

Location: HOOD RD GREER, SC

**Description:** Former solvent recovery facility that was purchased by Hoechst, Inc. and used as parking lot. Site contains high levels of vadose zone Volatile Organic Compounds (VOCs) as well as VOCcontaminated groundwater that migrated off-site.

Lead Designation: Responsible Party Funded Consent Agreement 98-55-HW 10/01/1998

Funds Expended in FY10: \$ 9,575.00 Total Site Expenditures: \$81,955.00

Actions Taken in FY10: In 2009, approximately 34 injection wells were damaged as a result of logging activities. DHEC approved the abandonment of these wells, but required the continued operation of the injection system. The Department is currently evaluating and assessing the performance and protectiveness of the remedy due to the major changes made with the injection system. The Department will provide a Five-Year Review Report in FY11.

#### **ONEITA MILLS**

Location: 10339 MAIN ST FINGERVILLE, SC

**Description:** Facility operated as textile facility which included dying and fining. Low levels of VOCs and petroleum compounds were initially identified in groundwater onsite. Limited extent of impact in that contaminants in groundwater were below regulatory thresholds.

Lead Designation: Responsible Party funded

Funds Expended in FY10: \$ 172.00 Total Site Expenditures: \$172.00

Actions Taken in FY10: On January 28, 2008, the Department approved a request to install monitoring wells for a pre-purchase evaluation. The November 2009 Assessment Report was reviewed. In March 2010, the Department issued a "No Further Action" status.

#### PACIFIC GUANO

Location: 1505 KING ST EXT CHARLESTON, SC

Description: Former fertilizer company. Soil and groundwater contaminated with lead.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 00-5296-RP

Funds Expended in FY10: \$ 968.00 Total Site Expenditures: \$34,854.00

Actions Taken in FY10: In June 2009, the Department reviewed the Cover System and Groundwater Monitoring Report; which among other things, referenced that the cap of the drainage ditch had been impacted by construction activities by the neighboring property owner. The Department conducted a site inspection on July 2, 2009. Based on the inspection, the construction activities of the adjacent property owner had resulted in increased runoff and erosion of the ditch. The Department requested that the cap be repaired and precautions made to minimize future erosion.

#### PALMETTO ANTIQUE FLOORING AND SALVAGE

Location: 1125 JOE LOUIS DR COLUMBIA, SC

**Description:** The facility planes antique heart pine lumber reclaimed from pre-1970's construction. Bulk quantities of wood shavings and sawdust have accumulated outside the process building. Samples indicated lead (at leachable levels) is present in the sawdust.

Lead Designation: State Funded

Responsible Party funded, Cost Recovery Settlement Agreement (06/29/09)

Funds Expended in FY10: \$ 331.00 Total Site Expenditures: \$46,322.00

Actions Taken in FY10: On June 29, 2009, the Department and Carl S. Rush, the owner of the facility property and lessor of the adjacent site's real property entered into a Cost Recovery Settlement Agreement. The Department performed administrative activities associated with this agreement in FY10. The RP met one of its contractual obligations of reimbursing \$24,000 of the Department's past costs.

#### PENTRON INC DBA POLAR SERVICE CENTER

Location: 120 CEDAR SPRINGS RD SPARTANBURG, SC

Description: Site used to clean out chemical/oil tanker trucks. FY09, site transferred from BoW to

SARR.

Lead Designation: Responsible Party funded, Consent Agreement 08-10-W

Funds Expended in FY10: \$ 216.00 Total Site Expenditures: \$216.00

Actions Taken in FY10: The Department performed a Potentially Responsible Party (PRP) search to locate those responsible and liable for the site's conditions and to seek recovery of DHEC's costs of responding to the site's conditions. These activities included performing a title search, GIS mapping, research of PRP corporate filings, and site visits to confirm location and boundaries. The Department provided Requests for Information to the identified PRPs.

Semi-annual monitoring reports were reviewed in September 2009 and March 2010. A Work Plan to install additional monitoring wells was reviewed and approved in September 2009. Analytical results from the additional monitoring wells indicated the plume is migrating offsite. A meeting was held in March 2010 to discuss the need for further site assessment and corrective action. A work plan to conduct a soil gas survey was reviewed and approved in April 2010.

#### PHILIP SERVICES CORPORATION

Location: 2324 VERNSDALE RD ROCK HILL, SC

Description: Formerly a RCRA TSD under interim status for solvent reclamation and incineration.

Lead Designation: State Funded

Bankrutpcy Trust Account (Contractor costs)

Funds Expended in FY10: \$ 271,647.00 Total Site Expenditures: \$3,576,610.00

Actions Taken in FY10: The Department met with the PRP Group to discuss remedial options to be evaluated in the Feasibility Study (FS), and to discuss the group's entry into a consent order to reimburse the Department's past response costs and to perform or pay for future cleanup activities. The groundwater treatment system continued to operate and additional security precautions were installed to prevent vandalism. The Department anticipates that a draft FS, which will evaluate remedial alternatives, will be completed in FY11.

#### PHILIPS COMPONENTS FACILITY

Location: 6071 ST ANDREWS RD COLUMBIA, SC

**Description:** Former manufacturer of aluminum electrolytic capacitors. Historical solvent use has impacted groundwater. FY09, site transferred from BoW to SARR.

Lead Designation: Responsible Party funded

Funds Expended in FY10: \$ 27,780.00 Total Site Expenditures: \$3,648.00

Actions Taken in FY10: The Department performed a Potentially Responsible Party (PRP) search and invited identified PRPs to enter into the Voluntary Cleanup Program to address the site's impact by Polychlorinated Biphenyls (PCBs).

Two semi-annual groundwater monitoring reports were also reviewed pursuant to Consent Agreement 00-154-W. Due to the presence of 1,1,1-trichloroethane in the groundwater, the Department requested 1,4dioxane analysis during the next sampling event. The groundwater pump and treat system appears to be effectively mitigating discharge to Lorick Branch.

#### PORT OF BALDWIN MINES

Location: LADYS ISLAND DR BRIDGE PORT ROYAL, SC

Description: Superphosphate production facility and mining operation that used sulfuric acid to produce fertilizers. Slag wastes still onsite containing high amounts of lead, arsenic & cobalt.

Lead Designation: Federal-lead

State Funded (NRDs)

Funds Expended in FY10: \$ 1,130.00

Total Site Expenditures: \$15,594.00

Actions Taken in FY10: This site is being addressed under the Federal Superfund Program. The HWCF supported the Department's participation in several conferences with the Natural Resource Trustees and ExxonMobil Corporation regarding natural resource damages.

### RAILROAD AVENUE SITE

Location: RAILROAD AVE HARTSVILLE, SC

Description: Railroad spur and switching yard with possible petroleum constituents from railroad operations.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 02-5496-RP

Total Site Expenditures: \$15,760.00 Funds Expended in FY10: \$ 2,646.00

Actions Taken in FY10: On July 1, 2009, DHEC reviewed groundwater investigation data and additional information from the RP concerning the soil cap. DHEC met with the developers on August 18, 2009, to discuss construction plans. DHEC observed some of the areas that were affected by soil erosion on January 7, 2010.

#### RENTAL UNIFORM SERVICE SITE

Location: 415 KEITH DR GREENVILLE, SC

Description: Former industrial laundry facility with soil and groundwater contamination with acctone, PCE, toluene, 1,2,4-trimethylbenzene, naphthalene, xylene, and benzene.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 04-5487-RP

Total Site Expenditures: \$1,765.00 Funds Expended in FY10: \$ 86.00

Actions Taken in FY10: On February 18, 2010, the Department requested the implementation of the approved proposal to install eight shallow wells and two bedrock permanent wells. After the review of the March 30, 2010 Remedial Investigation (RI) Report, the Department required additional assessment of groundwater and surface water be conducted and anticipates that a Work Plan for these activities as well as an amended RI Report will be submitted in FY11.

### RM ENGINEERED PRODUCTS INC

Location: 4854 O'HEAR AVE CHARLESTON, SC

**Description:** Industrial/commercial site with warehouses, office bldgs, & several manufacturing operations with possible asbestos, calcium oleate, perchloroethene, lead dust, rubber cement & red/black dust. FY09, site transferred from BoW to SARR.

Lead Designation: Responsible Party funded

Funds Expended in FY10: \$ 5,909.00 Total Site Expenditures: \$12,642.00

Actions Taken in FY10: The one well used to monitor the groundwater contamination and recover free product was destroyed during construction activities. A request was given by the developer to suspend monitoring until construction is complete; and the request was granted by the Department.

#### **RMAX**

Location: 1649 BATESVILLE RD GREENVILLE, SC

**Description:** Facility manufactures foam insulation panels. Groundwater contaminated with trichloroethene.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 00-5361-RP

Funds Expended in FY10: \$ 14.00 Total Site Expenditures: \$16,154.00

Actions Taken in FY10: On June 14, 2010, the Department requested the RP to implement a second groundwater-sampling event as outlined in the approved Monitored Natural Attenuation (MNA) Work Plan. The next biennial MNA sampling event will occur in March of FY11.

#### ROBERT BOSCH TOOL CORPORATION SITE

Location: 800 WOODSIDE AVE FOUNTAIN INN, SC

Description: Former manufacturer of small tools. Possible metals and VOCs.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 05-5613-RP

Funds Expended in FY10: \$ 330.00 Total Site Expenditures: \$3,748.00

**Actions Taken in FY10:** The Department reviewed the RP's draft Quality Assurance Project Plan (QAPP). The Department expects the submittal of the final QAPP along with the third revised Remedial Investigation/Feasibility Study (RI/FS) in FY11.

#### ROLL TECHNOLOGY

Location: 4412 WHITE HORSE RD GREENVILLE, SC

Description: Gwtr contamination. FY09, site transferred from BoW to SARR.

Lead Designation: Responsible Party funded

Funds Expended in FY10: \$ 313.00 Total Site Expenditures: \$313.00

Actions Taken in FY10: In February 2010, the RP submitted the 2009 Annual Groundwater Assessment. Groundwater remediation continues through the injection of molasses.

#### SANGAMO/LAKE HARTWELL--OPERABLE UNIT 1 & 2

Location: TWELVE MILE CREEK & LAKE HARTWELL PICKENS, SC

**Description:** From 1955 - 1987, site used fluids which contained polychlorinated biphenyls (PCBs). Waste was disposed of on the plant site as well as at six satellite disposal areas within a 3-mile radius of the plant. PCBs were also discharged with effluent directly into Town Creek, a tributary of Twelve Mile Creek.

Lead Designation: Federal-lead

State Funded (NRDs)

Funds Expended in FY10: \$ 50,454.00 Total Site Expenditures: \$110,439

Actions Taken in FY10: This site is being addressed under the Federal Superfund Program. The HWCF supported the Department's participation in several conferences with the Natural Resource Trustees and Schlumberger Corporation regarding natural resource damages. The Department and EPA held a public meeting on November 17, 2009, in which to gather input on the disposition of funds in the site's restoration account. On December 18, 2009, it was approved to begin construction of the sediment management unit.

#### SC DEPARTMENTOF MENTAL HEALTH - BULL ST CAMPUS

Location: 2100 BULL ST COLUMBIA, SC

**Description:** Former mental health care and treatment facility. Buildings range from 20-150 years old. USTs and ASTs, hydraulic lifts, pesticide storage areas, paint shops, etc.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 08-5789-RP

Funds Expended in FY10: \$ 5,158.00 Total Site Expenditures: \$12,200.00

Actions Taken in FY10: DHEC approved the Soil and Groundwater Investigation Work Plan and reports and also observed some of the sample collection efforts on August 19, 2009. DHEC and SC Department of Mental Health representatives met on January 25, 2010, to discuss the environmental investigation and the future use of the property.

#### SC SCA SERVICES

Location: HWY 78 DORCHESTER, SC

Description: The 40-acre Site operated as a municipal landfill. Groundwater contaminated with

chlorobenzene.

Lead Designation: Responsible Party funded

Funds Expended in FY10: \$ 237.00 Total Site Expenditures: \$8,385.00

Actions Taken in FY10: The 2009 Triennial Groundwater Monitoring Report was reviewed in early FY10. Also, the Department approved the RP to conduct a Special Groundwater Monitoring Event. A round of groundwater samples will be collected in FY11 instead of waiting until 2012. All remediation has been completed. The site remains active because low levels of VOCs remain present in small concentrations slightly above Drinking Water Standards in one on-site monitoring well. Routine groundwater monitoring is required until all detected concentrations of VOCs in groundwater are below and remain below Drinking Water Standards.

#### SCA-CHARLESTON DISPOSAL

Location: N SIDE OF CO-76 1/2 MILE E OF US-78 LADSON, SC

**Description:** Privately operated landfill that accepted all types of wastes, some possibly hazardous. No longer in operation.

Lead Designation: Responsible Party Funded Consent Agreement 95-07-HW 04/10/1995

Funds Expended in FY10: \$ 1,320.00 Total Site Expenditures: \$8,184.00

Actions Taken in FY10: The Department reviewed Groundwater Monitoring Reports.

#### SCE&G FLEET MAINTENANCE SITE

Location: 1409 HUGER ST COLUMBIA, SC

**Description:** Current City bus terminal. Former MGP from 1906-1954. Coal tar and PAH contamination in soil and groundwater.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 02-5295-RP

Funds Expended in FY10: \$ 12,915.00 Total Site Expenditures: \$33,979.00

Actions Taken in FY10: In early FY10, the Department reviewed a draft Removal Action Work plan to remove contaminated soil and debris from the facility property. In August 2009, baseline groundwater monitoring was conducted to establish the pre-removal conditions. On September 16, 2009, the Department signed the Action Memorandum outlining the rational for conducting a removal action. An availability session was held on October 12, 2009, to inform the public of the upcoming removal action and to provide the opportunity for the public to voice any concerns with the proposed work. The removal activities began in November 2009 and continued through March of 2010. The excavation consisted of the removal of USTs, gas holders, tar vats, brick foundations, and contaminated soil down to approximately 20-38 feet below ground surface. Over 130,000 tons of contaminated soil and debris were removed during the excavation and sent offsite for proper disposal.

### SCE&G SAVAGE ROAD CREW QUARTERS SITE

Location: 900 SAVAGE RD CHARLESTON, SC, SC

Description: A high-voltage substation with two buried electrical capacitors. Soil and groundwater are

impacted by Polychlorinated Biphenyl (PCB) contamination.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 98-5331-RP

Funds Expended in FY10: \$ 390.00 Total Site Expenditures: \$16,315.00

Actions Taken in FY10: The Department reviewed Quarterly Compliance Sampling Reports.

#### SCE&G SUMTER MGP SITE

Location: 238 HAUSER ST SUMTER, SC

Description: Former Manufactured Gas Plant. Soil and groundwater impacted.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 98-5343-RP

Funds Expended in FY10: \$ 3,021.00 Total Site Expenditures: \$44,693.00

**Actions Taken in FY10:** The Department reviewed the baseline Groundwater Monitoring Report following the removal action and a Groundwater Sampling and Analysis Plan. Several new monitoring wells were installed for the purpose of long-term groundwater monitoring.

#### SIMPSONVILLE (OLD) DUMP

Location: 3 MILES FROM INT.S-55 OFF S-453 SIMPSONVILLE, SC

**Description:** Former county-operated sanitary landfill. Groundwater contaminated with Volatile Organic Compounds.

Lead Designation: Responsible Party Funded Consent Agreement 95-34-SW 09/25/1995

Funds Expended in FY10: \$ 2,096.00 Total Site Expenditures: \$205,781.00

Actions Taken in FY10: The 2009 Annual Groundwater, Surface Water & Methane Monitoring Report was reviewed. The groundwater data collected remains consistent with low concentrations of VOCs detected. The Department continues to receive groundwater data twice a year to monitor any changes in VOC concentrations. Due to drought conditions over the last few years, some of the wells have been dry and unable to yield enough groundwater to collect samples. The Department has informed the RP that, unless conditions change, new, deeper wells will need to be installed to replace the wells that have been dry for the last few years.

#### SINGER CO

Location: HWY 28 BY-PASS ANDERSON, SC

Description: Operated two on-site landfills for wastes generated by the facility. FY09, transferred site

from BoW to SARR.

Lead Designation: Responsible Party Funded

Funds Expended in FY10: \$ 361.00 Total Site Expenditures: \$1,303.00

Actions Taken in FY10: In September 2009, the RP submitted the Second Semi-Annual Groundwater Monitoring report, which outlined that concentration levels for VOCs in the landfill 1 area and in the PCE plume continued to decrease. The remedy appears to have reduced the concentration of most of the chlorinated VOCs to acceptable levels. Landfill 2 area and on-site and off-site groundwater and surface water results also indicated a decrease in VOC concentrations. Over the last six months, the flow data for the extraction trench has been decreasing; and as such, three wells were treated for iron bacteria and the flow rates have increased.

### SOUTH LAKE DRIVE/OLD ORANGEBURG ROAD SIT

Location: S LAKE DR & OLD ORANGEBURG RD S LEXINGTON, SC

**Description:** One to one-and-one-half mile area of commercial and private property where groundwater is contaminated with Volatile Organic Compounds.

Lead Designation: Responsible Party Funded, Consent Decree Civ. Action #3-00-1759-25

Responsible Party Funded, Cost Recovery Settlement Agreement, CR-5345-01

Responsible Party Funded, Bankruptcy Settlement Agreement

Funds Expended in FY10: \$ 114,250.00 Total Site Expenditures: \$2,254,128.00

Actions Taken in FY10: The Department designed a pilot study to evaluate different permeable reactive barriers for treatment of groundwater. The best alternatives will be further evaluated through a bench scale pilot study. The pilot study will begin in FY11 and will lead to the design of a groundwater remedy.

#### SOUTHERN STATES

Location: 494 CAMDEN RD VANCE, SC

Description: Fertilizer loading facility. FY09, transferred site from BoW to SARR.

Lead Designation: Responsible Party Funded

Funds Expended in FY10: \$ 438.00 Total Site Expenditures: \$438.00

Actions Taken in FY10: The Department reviewed the 2009 Annual Groundwater Monitoring Report in October 2009. The Department had previously approved phytoremediation to address part of the shallow nitrate contamination onsite. However, the plants have not been maintained and extended periods of draught have killed them. Furthermore, the concentrations of nitrate appear to be increasing at a steady rate. The Department requested additional assessment by the RPs to determine if a continued nitrate source is present. The Department met with the RPs to discuss a course of action. A current receptor survey has been submitted to the Department. The RPs conducted limited assessment.

### SPARTAN INDUSTRIES INC

Location: HWY 176 PACOLET, SC

Description: Chrome plating facility with groundwater contamination.

Lead Designation: Responsible Party Funded, Consent Order 93-41-HW

Funds Expended in FY10: \$ 159.00 Total Site Expenditures: \$4,473.00

Actions Taken in FY10: Due to the non-submittal of the Soil and Groundwater Assessment Report, the Department requested that the RP continue remediation in accordance. Previously, the work plan was approved on November 17, 2008, in order to continue the delineation of the extent of chromium contamination in the soil and groundwater. The Department anticipates the submittal of the Soil and Groundwater Assessment report in FY11.

#### SPRINGS INDUSTRIES - INDIAN LAND SERVICE CENTER

Location: 3223 KENDELL TRACE FORT MILL, SC

**Description:** Former Springs Industries site, now a residential subdivision. A small tank was discovered in one resident's yard that had a PVC line running to it from the direction of the former plant.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 08-5790-RP

Funds Expended in FY10: \$ 5,282.00 Total Site Expenditures: \$69,139.00

Actions Taken in FY10: The RP completed the removal action. After three revision events, the Remedial Investigation (RI) Report, which documents the sampling and removal activities, was approved on December 18, 2009. The Department provided the affected residents with copies of the final RI Report. In February 2010, the property owner submitted additional detailed information on the removal action that was not included in the RI Report. The information was placed in the file as part of the site record, and a response was sent to the property owner.

#### STANLEY TOOLS

Location: 100 STANLEY RD CHERAW, SC

**Description:** A chromium groundwater plume and a fuel groundwater plume. FY09, transferred site from BoW to SARR.

Lead Designation: Responsible Party Funded

Funds Expended in FY10: \$ 109.00 Total Site Expenditures: \$109.00

Actions Taken in FY10: The Department continued discussions with the RP as to further source investigation for the chromium plume and fuel oil release. Annual monitoring continued for both plumes.

#### STARMET CMI

Location: 365 METAL DR HWY 80 BARNWELL, SC

**Description:** 8,000 metric tons of uranium waste on site. 20,000 drums.

Lead Designation: Responsible Parties Funded, Cost Recovery Settlement Agreement CR-5471-01

Responsible Party Funded, Cost Recovery Settlement Agreement CR-5471-02

**Funds Expended in FY10:** \$ 283,599.00 Total Site Expenditures: \$1,635,565.00

Actions Taken in FY10: The Department continued to perform Operation and Maintenance (O&M) activities at the facility, which include: security of the property, emergency response, radiation safety, radiological monitoring, health and safety, water and waste management, ventilation, radiological waste management, and site utilities.

#### STEVENS JP & CO CHEM PLANT NO 1

Location: OLD PELZER RD PIEDMONT, SC

Description: Site of former chemical manufacturing plant.

Lead Designation: Responsible Party Funded, Administrative Consent Order 05-15-HW

Responsible Party Funded ,Administrative Consent Order 91-13-SW 03/14/1991

Funds Expended in FY10: \$ 2,784.00 Total Site Expenditures: \$120,430.00

Actions Taken in FY10: The Department reviewed the Annual Groundwater Sampling and Recovery and Treatment System Evaluation Report. A Feasibility Study (FS) was requested to identify the areas of concern and evaluate remedial alternatives.

#### STOLLER CHEMICAL CO - CHARLESTON

Location: U.S HWY 17 7477 SAVANNAH HIWAY CHARLESTON, SC

**Description:** Former fertilizer manufacturing company. Sediment, soil, and groundwater impacted. Operable Unit One = Plant Site and groundwater; Operable Unit Two = Caw Caw Swamp.

Lead Designation: State-funded

Responsible Party Funded Consent Agreement 97-29-HW; SA 2:97-726-12 (RSG);

Release 95-CP-40-1434 (Reliance Ins.) 03/01/1997

Funds Expended in FY10: \$ 404,934.00 Total Site Expenditures: \$5,293,739.00

Actions Taken in FY10: The Department continued discussions with an adjacent property owner about access to the property across US Highway 17 from the site in order to implement the second phase of the groundwater treatment system. In August 2009, additional groundwater sampling was conducted in order to determine if the extent of contamination had fully been identified and to address some of the concerns of the adjacent landowner. Results of the study indicated that the extent of contamination had been determined.

The Annual Groundwater Sampling Report and the Post-closure Care Report were reviewed. Additional groundwater monitoring wells were installed around the Permeable Reactive Barrier (PRB) in order to evaluate the performance of the remedy. Based on the groundwater monitoring data, the concentration of

contaminants down gradient of the PRB have decreased to concentrations below the Drinking Water Standards, and supports that the PRB is performing as designed. The adjacent landowner had concerns with the PRB and requested the opportunity to conduct a pumping test in order to evaluate the PRB. The Department commented on this proposal in April 2011 and it is expected that the test will be conducted in FY11.

#### STONO PHOSPHATE WORKS

Location: 2079 AUSTIN AVE CHARLESTON, SC

**Description:** From approx. 1900 – 1950s, the 15-acre site was used for the production of phosphate

fertilizer.

Lead Designation: Federal-lead

State funded (NRDs)

Funds Expended in FY10: \$ 1,374.00 Total Site Expenditures: \$8,452.00

**Actions Taken in FY10:** This site is being addressed under the Federal Superfund Program. The HWCF supported the Department's participation in several conferences with the Natural Resource Trustees and ExxonMobil Corporation regarding natural resource damages.

The site is not listed on the National Priorities List (NPL), but is considered to be an NPL-caliber site and is being addressed through the Superfund Alternative Approach. This approach uses the same investigation and cleanup process and standards that are used for sites listed on the NPL.

The Non-Time-Critical Removal Action selected in the EPA Action Memorandum is scheduled to commence, and be completed in 2011.

### SUFFOLK CHEMICAL CO

Location: .5 MILES N OF US-76 ON CO RD 82 CHAPIN, SC

**Description:** Abandoned industrial chemical repackaging plant with groundwater contaminated with chlorinated compounds.

Lead Designation: Responsible Parties funded, Cost Recovery Settlement Agreement, CR-4992-03

Responsible Parties funded, Cost Recovery Settlement Agreement, CR-4992-02 Responsible Party funded, Cost Recovery Settlement Agreement, CR-4992-01 Non-Responsible Party funded, Brownfield Contract & Amendment 96-4992-01

State Funded

Funds Expended in FY10: \$83,198.00 Total Site Expenditures: \$1,116,085.00

Actions Taken in FY10: An assessment of groundwater quality during the eighth year of operation of the groundwater extraction system was completed in January 2010. Based on the data collected during this annual sampling event, the remedial system continues to recover volatile organic compounds (VOCs) from the saprolite and bedrock aquifer units beneath the site. The system appears to be controlling the transport of VOCs in groundwater off-site to the west. The groundwater effluent continues to pass toxicity testing and meets the requirements for acceptance by the Town of Chapin wastewater treatment plant. It is estimated that approximately 16 million gallons of groundwater have been recovered by the two extraction wells since April 2002. Continued groundwater monitoring will allow evaluation of any changes to the contaminant concentrations and distribution.

#### SUN CHEMICAL CORPORATION

Location: ONE SEQUA DR CHESTER, SC

**Description:** A manufacturing facility that makes specialty chemical products. Soil contaminated with Polychlorinated Biphenyls (PCBs) and Volatile Organic Compounds (VOCs); groundwater contaminated with VOCs.

Lead Designation: Responsible Party Funded Consent Agreement 99-39-HW, 08/30/1999

Funds Expended in FY10: \$ 6,200.00 Total Site Expenditures: \$75,030.00

Actions Taken in FY10: A groundwater remediation system that addresses the volatile organic contamination is in place. DHEC responded to several reports and met with the RP to discuss the groundwater remediation system. Further, modifications to the system were completed in March 2010.

#### **SWIFT AGRI-CHEM CORP**

Location: 2750 SPEISSEGGER DR CHARLESTON, SC

**Description:** The approx. 43.6 acre site was used for phosphate fertilizer manufacturing from 1891 to

1975.

Lead Designation: Federal-lead

State Funded (NRDs)

Funds Expended in FY10: \$ 1,909.00 Total Site Expenditures: \$15,595.00

Actions Taken in FY10: This site is being addressed under the Federal Superfund Program. The HWCF supported the Department's participation in several conferences with the Natural Resource Trustees and ExxonMobil Corporation regarding natural resource damages.

#### TERRY METH LAB SITE

Location: 819 BEAUREGARD RD SUMMERVILLE, SC

Description: Clandestine lab operated in single family home with meth lab waste dumped and burned

outside.

Lead Designation: State Funded

Funds Expended in FY10: \$8,280.00 Total Site Expenditures: \$8,280.00

Actions Taken in FY10: The Department performed an emergency removal action due to a direct environmental impact. The Department sampled soils and burn piles, removed grossly contaminated soils and other debris and properly packaged and disposed of all hazardous substances removed from the site. The Department is in the process of recovering its costs of response from the Potentially Responsible Parties (PRPs).

#### THOMAS & BETTS - INMAN FACILITY

Location: 10390 U.S HWY 176 (ASHEVILLE HWY) INMAN, SC

**Description:** PCE, toluene & heavy metals in two on-site sanitary septic systems, on-site oil/water

separator & on-site infiltration gallery.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 04-5483-RP

Funds Expended in FY10: \$ 6,779.00 Total Site Expenditures: \$25,930.00

Actions Taken in FY10: The Department reviewed the Focused Feasibility Study in October 2009. Additional sampling was requested to evaluate the extent and volume of contamination that would need to be treated. The April 2010 Supplemental Investigation Work Plan proposed the installation of groundwater monitoring wells to determine the extent of contamination and to evaluate fractured bedrock.

#### TNS MILLS

Location: 400 TNS RD SPARTANBURG, SC

Description: Textile facility - septic tank drainfields, USTs, etc. FY09, site transferred from BoW to

SARR.

Lead Designation: Responsible Party Funded

Funds Expended in FY10: \$ 602.00 Total Site Expenditures: \$602.00

Actions Taken in FY10: A Groundwater Monitoring Plan and a Receptor Survey was reviewed.

#### UNIVAR

Location: 2750 SOUTHPORT RD SPARTANBURG, SC

Description: Hazardous waste drum storage storage and recycling. FY09, site transferred from BoW to

SARR.

Lead Designation: Responsible Party Funded

Funds Expended in FY10: \$ 1,539.00 Total Site Expenditures: \$1,539.00

Actions Taken in FY10: The Department performed a site visit to evaluate the possible groundwater usage in the area. The Department and the RP discussed the VOCs contamination detected on-site (primarily trichloroethylene (TCE) and Tetrachloroethylene (PCE)), remedial actions conducted, and the path forward toward further assessment and remediation. The Department requested that the RP provide a Receptor Survey, a Sampling and Analysis Plan, a review of the Remedial System's Effectiveness, an Assessment Work Plan, and clarification regarding specific questions regarding the facility's monitoring wells. The Receptor Survey Report indicated no potential receptors were down-gradient of the site.

Late in FY10, concerns from citizens came to the Department's attention for the former US Army Camp Croft area's proximity to the site and a public meeting is being planned for early FY11 to address the public's concerns and respond to any questions.

#### VELCOREX/GREENWOOD MILLS EDISTO PLANT

Location: 2500 ROWESVILLE RD ORANGEBURG, SC

**Description:** Textile dyeing and finishing plant operated by Greenwood Mills (1970-1988) and Velcorex Inc. (1988-2006). Spill of fuel oil being remediated under BOW. Phase II pre-buy found trace levels of PCE in groundwater.

Lead Designation: Responsible Party Funded, Voluntary Cleanup Contract 07-5693-RP-2

Funds Expended in FY10: \$ 980.00 Total Site Expenditures: \$6,104.00

Actions Taken in FY10: The temporary and permanent monitoring wells installed in June 2009 were sampled to determine the extent of volatile organic compounds in the groundwater. DHEC observed some of the sample collection efforts on July 21, 2009.

#### **VICELLAN**

Location: 1000 MCCARTER RD FOUNTAIN INN, SC

**Description:** VOC plume, mid-80s had recovery system; then moved plume control only. FY09, site transferred from BoW to SARR.

Lead Designation: Responsible Party Funded

Funds Expended in FY10: \$ 47.00 Total Site Expenditures: \$47.00

Actions Taken in FY10: The Department conducted a site visit. The RP will reinstall two monitoring wells across the street that had been abandoned because of road work. These wells were sampled and found to be impacted. A receptor survey was conducted and the Department requested a Corrective Action Plan.

#### WR MEDLIN COMPANY

Location: 1517 OLD DUNBAR RD WEST COLUMBIA, SC

**Description:** Currently an operating machine and fabrication shop for pre-engineered metal frame structures - in business over 25 years, metal shavings and paint overspray accumulation on the dirt floor of the shop. Phase II found soils arsenic levels up to 79.8ppm.

Lead Designation: Responsible Parties Funded, Voluntary Cleanup Contract 09-5783-RP

Funds Expended in FY10: \$ 918.00 Total Site Expenditures: \$959.00

Actions Taken in FY10: On October 8, 2009, the Department entered into a Voluntary Cleanup Contract 09-5783-RP with Responsible Parties, which included W.R. Medlin Company, Inc., various heirs, and Everette Reynolds, LLC.

On November 30, 2009, the Department reviewed the Phase I and II Environmental Assessment Report, of which sampling results indicated residential and industrial Preliminary Remediation Goal's for arsenic were exceeded. On December 15, 2009, the Department requested the excavation of impacted soils in the affected areas and the installation of two additional groundwater wells. On March 9, 2010, the Department approved the Assessment Work Plan with the proposed additional fieldwork and anticipates receipt of the Assessment Work Plan Report in FY11.

#### **WEYLCHEM**

Location: 2114 LARRY JEFFERS RD ELGIN, SC

**Description:** Manufacturer of pharmaceutical intermediates, agricultural intermediates, and specialty chemicals. FY09, transferred site from BoW to SARR.

Lead Designation: Responsible Party Fudned

Funds Expended in FY10: \$ 75.00 Total Site Expenditures: \$75.00

Actions Taken in FY10: The Department visited the site and the surrounding area and requested further information from the RP regarding site assessment and remediation.

#### WIKOFF COLOR CORP

Location: 1886 MERRITT RD FORT MILL, SC

Description: Nearby Foxwood Subdivision wells impacted. FY09, transferred site from BoW to SARR.

Lead Designation: Responsible Party Funded

Funds Expended in FY10: \$ 788.00 Total Site Expenditures: \$788.00

Actions Taken in FY10: Sampling results of a well owned by the RP and used by the public water supply company had 4.6 ppb Perchloroethylene (PCE). The RP proposed installing an air stripper on the well. The RP also completed a soil gas vapor intrusion survey.

Appendix B

# **State Superfund Process**

THE STATE SUPERFUND PROGRAM
A Brief Description of the State Superfund Process

DHEC's Bureau of Land and Waste Management's Division of Site Assessment and Remediation is responsible for managing state-lead and EPA-lead Superfund Programs. The site assessment and remediation process, which mirrors EPA Superfund's process, may include a short-term removal action or a complex and lengthy remedial investigation and cleanup. The State Superhad process begins with site discovery or notification of possible releases of hazardous substances. If a site requires immediate attention, DHEC's Emergency Response Program may perform actions to address immediate threats to the public health or the environment. If a site does not pose an imminent threat, it is screened to determine whether it warrants further evaluation for remedial (or long-term) measures. If a site's condition does not qualify for placement on the Federal Superfund Program's National Priorities List (NPL), then cleanup is addressed by the State Superfund Program.

A Remedial Investigation/Feasibility Study (RIIFS) is conducted by DHEC. A Remedial Investigation (RI) is an in-depth investigation to determine the nature and extent of contamination at a site. The Feasibility Study (FS) provides a comparison of various cleanup options that would make the site safe for the public and the environment. From the information in the FS, a Proposed Plan is developed offering a preferred remedial option. The public is given a 30-day comment period on the Proposed Plan during which a public meeting is held to encourage community input and participation concerning the suggested options for cleanup. After the comment period, a Record of Decision (ROD) is written to formally document the cleanup technology that will be implemented.

After the ROD, the project enters the Remedial Design/Remedial Action (RD/RA) phase, which is a site's actual remedy, designed and carried out. Ongoing monitoring of site conditions occurs to ensure that the remedy is protective of public health and the environment. If the Department determines that no further response action is required to protect human health and the environment, the technical response matter is in effect closed.

The Department encourages potentially responsible parties (PRPs) to pay for State Superfund cleanups. One or several PRPs may participate. These are called state enforcement-lead sites. At other sites, however, there may be no known PRPs, or the PRP may not be able to afford the necessary cleanup actions. When a PRP-financed cleanup is not possible, the site is addressed using the HWCF. Sites that are remediated using the HWCF are called state-lead sites. Where PRPs are unwilling to perform cleanup activities, DHEC pursues PRPs for cost recovery through administrative and legal actions. Regardless of whether the cleanup is financed by the HWCF, or PRPs, CERCLA requires the same cleanup process.

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### Appendix C

# The State Superfund Program - Public Participation

## A Brief Description of Public Participation

CERCLA incorporated public involvement into the Superfund process. Congress intended to ensure that the people whose lives were affected by abandoned and uncontrolled hazardous waste sites have a voice in how their communities were addressed and cleaned up. DHEC adopted these values and is committed to early and meaningful community involvement during State Superfund cleanup. The State Superfund Program educates, informs, and involves the citizens, elected officials, and the local government officials of a Superfund community on the issues that pertain to that particular site.

The State Superfund Program has historically strived to inform the public of environmental impacts of contamination in their communities and to involve the communities with decision-making opportunities. Depending on local needs of the community and pursuant to HWMA, CERCLA, and the NCP, the State Superfund Program:

- provides fact sheets written for the public;
- holds public meetings, availability sessions and one-on-one meetings with community members at different phases of response;
- provides the public with 30-day periods in which to comment on proposed cleanup activities of
  which such notice is mailed to area residents and published in a local newspaper of general
  circulation within the affected community, and
- provides 30-day periods to comment on various documents such as cost recovery settlement agreements and judicially-approved settlements with responsible parties, of which notice is mailed to all known PRPs and published not only in the local newspaper but also in the South Carolina State Register;
- establishes a local repository in which the State Superfund Program provides copies of the administrative record (AR), which contains documents the Department relied on in making any technical decisions at a site. The AR is updated at different phases of cleanup;
- establishes a community relations plan for state-lead sites as deemed appropriate; and,
- participates in press conferences and a variety of other activities designed specifically for the community.

The State Superfund Program now requires these public participation costs to be reimbursed by the responsible or non-responsible parties, which have entered into the agreement or contract with the Department. Contact persons from the State Superfund Program are always available to answer citizens and media inquiries about Superfund sites.


### Appendix D

# **Emergency Response Actions for FY10**

The DHEC's Emergency Response Section (ER) is responsible for overseeing the emergency response contract, which is a strong asset to the State Superfund Program. Before this contract came into existence, local, county and state governments were forced to rely on the federal government and concerned corporate citizens of the state to handle small incidents when things were illegally dumped or abandoned on public property. The contract is used to secure, sample, and properly dispose of abandoned waste.

Moran Environmental Recovery, Inc. with a branch office in North Charleston, SC, was awarded the contract for the eastern region of the state. A&D Environmental was awarded the contract for the middle region of the State. The upper region of the state was awarded to AEO, Inc. All contractors work on a 24-hour on-call basis and are required to respond within three hours to their respective regions within the state.

ER expended approximately \$34,362.49 responding to nine incidents. ER has sought reimbursement of \$25,729.66 from the National Pollution Funds Center and approval is still pending. Those sites pending approval are noted as "NPFC Reimbursement Sought." The amount of reimbursement money varies from year to year depending on the number and types of incidents that occur. Those sites of which DHEC costs are not recoverable due to material type or location are noted as "Not Recoverable."

#### EMERGENCY RESPONSE SITE DESCRIPTIONS:

10-01-200904665 (Region 3) Richland County. An abandoned 20-gallon container was discovered on the side of US Highway 17 and Ashepoo Drive. This leaking drum was placed into an over-pack drum and analytical data from tests run on the contents of the drum indicated petroleum products. Material was properly disposed.

Moran Environmental Recovery

\$2,986.68

Not Recoverable

10-02-200905069 (Region 7) Charleston County. A 500-gallon poly drum washed up on the beach at Seabrook Island. Oily sludge leaked out of the drum and was removed with absorbent by the United States Coast Guard (USCG). DHEC and USCG removed the drum off the beach before high tide. Moran picked the drum up; and disposition of the drum's contents was determined upon receipt of the analytical data. The liquid contents were properly disposed.

Moran Environmental Recovery

\$938.65

Not Recoverable

10-03-200906328 (Region 3) Richland County. FD reported a delivery truck lost fuel down Leesburg and Harmon Roads due to a fuel line rupture. A&D removed a minor amount of contaminated soil and some sand that the FD had laid down. Material was properly disposed.

A&D Environmental

\$2,298.62

Not Recoverable

10-04-200906552 (Region 3) Lancaster County. An abandoned 55-gallon drum containing an unknown substance was discovered on the side of Wintertide Drive (Old Hwy 601) in Kershaw. A drum located on road shoulder approximately 100 yards from Lynches River. The drum appeared to contain some sort of petroleum product and was properly disposed.

Advanced Environmental Options

\$930.50

NPFC Reimbursement Sought

10-05-200905269 (Region 2) Spartanburg County. An abandoned 55-gallon drum containing an unknown substance was discovered on the side of the road, near the South Tyger River. No material was observed on the ground. The drum was retrieved, tested, and properly disposed.

Advanced Environmental Options

\$1,306.50

Not Recoverable

10-06-200906817 (Region 2) Greenville County. Harbin Brothers Motor City, that repairs old cars for resale, had a release of 30-gallons of oil into a drain pipe leading directly to a storm drain which led directly to an unnamed tributary of the Reedy River. In order to stop the liquids from reaching the river, pads and spill booms were placed across the affected area to contain the product.

Advanced Environmental Options

\$2,610.00

NPFC Reimbursement Sought

10-07-201002428 (Region 3) Richland County. Behind Willow Creek Apartments, DHEC's Region 3 discovered an unknown oily substance coming from a storm drain into Stoops. The oily substance was taken to the lab for testing and it was determined the substance was a petroleum product.

A&D Environmental

\$4,666.83

NPFC Reimbursement Sought

10-08-201002531 (Region 2) Greenville County. An illegal dumping of 150-gallons of unknown oil was found on the side of the road 1/10 of a mile from an unnamed tributary of the Saluda River. Soil excavation was necessary to remove contamination before it was washed into a river. All contaminated soil was placed into a roll-off box and properly disposed.

**Advanced Environmental Options** 

\$17,522.33

**NPFC** Reimbursement Sought

10-09-201003472 (Region 3) Richland County. An unknown liquid filled drum was found on the side of a street in Cayce. No responsible party could be contacted to address this release. A&D mitigated the immediate threat to the environment and the lab identified the contents as Cesium Hydroxide solution. The contents of the drum was properly disposed.

**A&D Environmental** 

\$1,102.38

Not Recoverable

Total: \$34, 362.49

### Appendix E

# Sites on the National Priorities List (NPL)

Sites shown in this list are being addressed under the authority of the Federal Superfund Program. SAR staff provides technical and administrative assistance to USEPA on those sites. Most of those sites are on the NPL, or have been recommended for listing. Sites on the NPL are eligible to receive Federal Superfund money for remedial activities. Revenues from the uncontrolled sites portion of the State's Hazardous Waste Contingency Fund are used to provide the state's cost share for Fund-lead NPL sites. As the current Federal law is written, the state's cost share for remedial action at Fund-lead sites is a minimum of ten percent (10%) but may be as high as fifty percent (50%) for sites owned or operated by the state or any of its political subdivisions. The state is also responsible for the same cost share percentage for the first year of any long term monitoring. Thereafter, the state becomes responsible for one hundred percent (100%) of the costs for Operation and Maintenance (O&M). Furthermore, if any remedial action requires more than ten years (e.g., groundwater recovery and treatment operations), the state is required to fund one hundred percent (100%) of the cost after the first ten years. The table below is a complete NPL list for South Carolina.

Key to the Acronyms on the NPL list:

- NPL means the site is listed on the National Priorities List
- NPL-D means the site has been "delisted" or removed from the National Priorities List
- NPL-P means the site is proposed for the National Priorities List
- NPL-R means the site is on the National Priorities List, but is being addressed under RCRA.
- NPLS means the site is a satellite site of a National Priorities List site
- NPL-E (equivalent) or SACM (Superfund Accelerated Cleanup Model) means the site is being addressed as if on the NPL, even though it has not been formally listed for the NPL.

Site Name EPA ID # City Name	County	NPL – Status	Description
ADMIRAL HOME APPLIANCES SCD047563614 WILLISTON	Barnwell	NPL-E	Site Background The Admiral Home Appliance site, located in Williston, Barnwell County, South Carolina, was the site of a former wastewater treatment plant, initially used for the treatment of domestic wastewater for a trailer park. After the trailer park ceased operation, a variety of manufacturing operations started up at the site. These manufacturing operations continued to use the wastewater plant to inadequately treat industrial wastewater until 1982, when the adjacent manufacturing plant began to pre-treat their wastewater and discharge to Williston's Sewage Treatment Plant.  The manufacturing plant is the current location of Dixie Narco Inc., currently owned by the Crane Corporation. The factory was formerly operated by the Rheem Corporation and Maytag Appliances, currently a division of the Whirlpool Corporation. The plant currently manufactures vending machines for soda, bottled water, and several other products.  The site is not listed on the National Priorities List (NPL), but is considered to be an NPL- caliber site and is being addressed through the Superfund Alternative Approach. This approach uses the same investigation and cleanup process and standards that are used for sites listed on the NPL.  Site Cleanup Plan The Record of Decision (ROD) for the site was issued in 2006. Major cleanup elements for the site included:  Excavation and off-site disposal of contamination source materials in the equalization lagoon. Enhanced reductive dechlorination treatment of contaminated ground water. Excavation and dredging of sediments and soil in the discharge area, wetlands, and stream for off- site disposal. Restoration of wetlands. Monitored natural attenuation of surface water.

Site Name EPA ID #	County	NPL -	Description
ARKWRIGHT DUMP SC0002333227 SPARTANBURG	Spartanburg	NPL-E	The Arkwright Dump site is a 30-acre property located at the north end of Hilltop Lane in the Arkwright neighborhood, immediately south of the city boundary of Spartanburg, South Carolina. Surrounding properties include residential, industrial, and undeveloped areas. The site is a rectangle-shaped property bounded by Fairforest Creek to the east, a former fertilizer plant to the north (the International Mineral and Chemical Corp. (IMC) site), an active chemical manufacturing facility to the west, and homes to the south and southeast.  The site was initially identified to EPA by the leader of a local community group in 1998. Information from aerial photography and city personnel indicates that a dump (later a landfill) was operated on the site by the City during the 1950s and 1960s. The landfill is believed to have accepted primarily municipal wastes; however, available information suggests that medical, automotive, and other wastes were probably also disposed of in the landfill. In 1972 the dump was closed and a soil cover was placed over the buried wastes. The City sold the property to a private citizen in 1976. No operating records or permits have been located to date by EPA or the South Carolina Department of Health and Environmental Control (SCDHEC).  The site is located in a 500-acre area that is the focus of a nationally-recognized revitalization effort known as the ReGenesis project. This project is led by the community organization, ReGenesis, Inc., and supported by numerous Federal, State, and local partners, including EPA, South Carolina Department of Health and Environmental Control (SCDHEC), and the City and County of Spartanburg.  The final design for cleanup activities is currently underway and is expected to be completed in 2011. Cleanup activities are being led primarily by potentially responsible parties with oversight by the State.

ASHEPOO PHOSPHATE/FERTILIZER WORKS SC0001645373 CHARLESTON  Charleston  NPL-E  A phosphate fertilizer granulati at this location. Lead and arsen the soil and groundwater. Grouph.  The Atlantic Phosphate Works approximately 30 acres in size the Ashley River in Charleston. The site was used for phosphate manufacturing from 1900 to 19 based fertilizer manufacturing a reacting phosphate ores with su produce phosphoric acid, the benefit Nitrogen-Phosphorus-Potassiun fertilizer. Sulfuric acid was mastored in lead-insulated chamber at the soil and groundwater. Grouph.  The Atlantic Phosphate Works approximately 30 acres in size the Ashley River in Charleston. The site was used for phosphate manufacturing from 1900 to 19 based fertilizer manufacturing a reacting phosphate ores with su produce phosphoric acid, the benefit Nitrogen-Phosphorus-Potassiun fertilizer. Sulfuric acid was mastored in lead-insulated chamber at the soil and groundwater. Grouph.  ATLANTIC PHOSPHATE WORKS/SCE&G HAGOOD ST SCD000822171 Charleston NPL-E Orange The Aphosphate fertilizer granulati at this location. Lead and arsent the soil and groundwater. Grouph.  The Atlantic Phosphate Works approximately 30 acres in size the Ashley River in Charleston.  The site was used for phosphate manufacturing from 1900 to 19 based fertilizer manufacturing a reacting phosphate ores with su produce phosphoric acid, the benefit of the Nitrogen-Phosphorus-Potassiun fertilizer. Sulfuric acid was mastored in lead-insulated chamber.  A power plant was built on the operates today as the 100-MW Generating Station, which is a	Site Name EPA ID #	County	NPL – Status	Description
The Atlantic Phosphate Works approximately 30 acres in size the Ashley River in Charleston. The site was used for phosphate manufacturing from 1900 to 19 based fertilizer manufacturing a reacting phosphate ores with su produce phosphoric acid, the bunitrogen-Phosphorus-Potassium fertilizer. Sulfuric acid was mastored in lead-insulated chamber at the Apower plant was built on the operates today as the 100-MW Generating Station, which is a produce phosphoric acid, the bunitrogen-Phosphorus-Potassium fertilizer. Sulfuric acid was mastored in lead-insulated chamber at the Apower plant was built on the operates today as the 100-MW Generating Station, which is a produce phosphoric acid, the bunitrogen-Phosphorus-Potassium fertilizer. Sulfuric acid was mastored in lead-insulated chamber at the produce phosphoric acid, the bunitrogen-Phosphorus-Potassium fertilizer. Sulfuric acid was mastored in lead-insulated chamber at the produce phosphoric acid, the bunitrogen-Phosphorus-Potassium fertilizer. Sulfuric acid was mastored in lead-insulated chamber at the produce phosphorus produce phosphorus-Potassium fertilizer. Sulfuric acid was mastored in lead-insulated chamber at the produce phosphorus phosphorus produce phospho	ASHEPOO PHOSPHATE/FERTILIZER WORKS SC0001645373	Charleston		Charleston Container Co. is a portion of this site and is being worked on in the VCP.  A phosphate fertilizer granulation plant operated at this location. Lead and arsenic are present in the soil and groundwater. Groundwater has low pH.
demand).  The site is not listed on the Nat List (NPL), but is considered to caliber site and is being address Superfund Alternative Approac uses the same investigation and	WORKS/SCE&G HAGOOD ST SCD000822171	Charleston	NPL-E	The Atlantic Phosphate Works site is approximately 30 acres in size and is located on the Ashley River in Charleston, South Carolina. The site was used for phosphate fertilizer manufacturing from 1900 to 1943. Phosphate-based fertilizer manufacturing at the site involved reacting phosphate ores with sulfuric acid to produce phosphoric acid, the building block of Nitrogen-Phosphorus-Potassium agricultural fertilizer. Sulfuric acid was made at the site and stored in lead-insulated chambers.  A power plant was built on the site in 1946 and operates today as the 100-MW Hagood Generating Station, which is a peaker plant (typically operated to meet periods of high demand).  The site is not listed on the National Priorities List (NPL), but is considered to be an NPL-caliber site and is being addressed through the Superfund Alternative Approach. This approach uses the same investigation and cleanup process and standards that are used for sites listed on the

Site Name EPA ID # City Name	County	NPL – Status	Description
BEAUNIT CORP-CIRCULAR KNIT & DYEING PL SCD000447268 FOUNTAIN INN	Greenville	NPL	The Beaunit Corporation (Circular Knit & Dye) site in Fountain Inn, South Carolina consists of an abandoned, unlined, former wastewater lagoon, and surrounding area. The 1.3-acre lagoon site was used to treat industrial wastewater from an adjacent former textile facility. Treated wastewater from the site was transported to the lagoon area through a pipeline from the textile facility.  The wastewater lagoon was built in 1951 and ceased operations in 1977 when the adjacent plant connected to municipal sewage. In 1980 the wastewater treatment structures around the lagoon were demolished and the lagoon was partially filled in with the demolition debris and surrounding soil. Wilson Sporting Goods, which manufactures sporting goods at the adjacent plant, also disposed of non-hazardous materials that were remnants of tennis ball manufacturing at the site. The site was unfenced until the late 1980s and there is evidence of dumping at the site due to its rural location and lack of a fence. The site is currently fenced with locked gates.  Land use within one mile of the site includes small farms, residential areas, several businesses, and industrial facilities. Water is available to area residents and businesses through a public water supply system. No ground water supply wells exist at the site or in the vicinity.
BRASWELL SHIPYARDS INC/FED-SERV SCD061528956 CHARLESTON	Charleston	NPLS	Six large aboveground storage tanks containing creosote and bermed areas around the tanks.  Contaminated soil has already been removed by the PRP's. Part of Koppers Charleston.
BRAY PARK DUMP SCD980844500 CAYCE	Lexington	NPLS	Old uncontrolled town dump. Heavy metal contamination present in groundwater. Part of Lexington County 321 Landfill site.
BREWER GOLD MINE DAM FAILURE SCD987577913 JEFFERSON	Chesterfield	NPL	Dam failure at the mine released acid mine drainage to nearby creek. EPA did emergency response.
CALHOUN PARK AREA SITE SCD987581337 CHARLESTON	Charleston	NPL-E	A former manufactured gas plant and Ansonborough Homes, a public housing unit.
CAROLAWN SCD980558316 FORT LAWN	Chester	NPL	Waste stored for planned on-site incineration in large above ground bulk tanks and drums. The site is split into two operable units. OU-2 is a no further action.

Site Name			·
EPA ID # City Name	County	NPL – Status	Description
COLUMBIA NITROGEN SC0001040393 CHARLESTON	Charleston	NPL-E	The Columbia Nitrogen site occupies approximately 43 acres on the Ashley River in Charleston, Charleston County, South Carolina. From 1905 until 1972, the site was used for phosphate fertilizer manufacturing. The production of phosphate fertilizer at the site involved reacting phosphate ore with sulfuric acid to produce phosphoric acid, the building block of nitrogen-phosphorus-potassium (N-P-K) agricultural fertilizers. Sulfuric acid was produced at the site and stored in lead-insulated chambers.  The site is not listed on the National Priorities List (NPL), but is considered to be an NPL-caliber site and is being addressed through the Superfund Alternative Approach. This approach uses the same investigation and cleanup process and standards that are used for sites listed on the NPL.  Beginning in May 1999, EPA conducted a fundlead remedial investigation and feasibility study (RI/FS) at the site. Analytical results from the RI/FS confirmed the presence of lead and arsenic contamination in surface and subsurface soil, ground water, surface water, and sediment.  In 2004, Ashley II Inc., the current property owner, conducted additional sampling activities at the site, which further characterized the lead and arsenic contamination in soil.  In fall 2006, EPA provided a mediator to facilitate ongoing litigation between the potentially responsible parties (PRPs) and Ashley II Inc. regarding past costs, as well as the estimated cost of \$7,883,132 for the NTCRA. Due to the ongoing litigation, the design for the NTCRA has been put on hold and a schedule for the initiation of the NTCRA has not been determined.  Site cleanup activities are being led primarily by EPA.
DODGENS PROPERTY SCD980847230 PICKENS	Pickens	NPLS	Former dump site, with PCB contamination. PART OF SANGAMO SITE.

Site Name			
EPA ID#	Country	NPL-	Description
City Name	County	Status	Description
ELMORE (FRANK) SITE			Drum disposal site and abandoned underground
SCD980839542	Spartanburg	NPL	storage tank. Site has been subdivided and is
GREER			now owned by 2 different property owners.

Site Name EPA ID#	Country	NPL-	Paradiation
City Name	County	Status	Description
			The Geiger (C & M Oil) site is located in Charleston County approximately 10 miles west of Charleston, along Highway 162 in Hollywood (formerly Rantowles). The site is approximately 1.5 acres in size, triangular in shape and is bounded on two sides by ponds. The area around the site is sparsely populated and heavily forested.
			Oil incineration operations took place at the site from 1969 to 1974, though the State of South Carolina had ordered the facility to stop waste oil incineration in 1971. Between 1969 and 1971, eight unlined lagoons were constructed for the purpose of holding waste oil in connection with the incineration process.
GEIGER (C & M OIL) SITE			EPA began collecting samples at the site in 1980. The total quantity of waste on the site was estimated at 149,600 gallons. This waste consisted of organic and metal contaminants, such as benzo(a)anthracene, and other similar compounds, polychlorinated biphenyls, trichloroethylene, lead, and chromium.
SCD980711279 RANTOWLES	Charleston	NPL	Stabilization/solidification of contaminated soil began in 1993 and was completed in 1994.
			EPA, since the signing of the ROD, has conducted additional field investigations to better characterize and define the extent of ground water contamination. Based upon follow-up investigations, EPA determined that lead was the only inorganic contaminant of concern consistently detected above drinking water standards. Further, elevated lead levels were identified in two of 27 monitoring wells. In addition, EPA determined that the level of lead had been decreasing in one of the two wells, Monitoring Well-6S (MW-6S), and was near drinking water standards. The other monitoring well, MW-2S, which is located in a relatively undeveloped area, had indicated an increase in concentration.
			In 2004, EPA installed and sampled temporary wells to determine if aquifer contamination existed at the two wells with elevated lead levels. Work also included abandonment and decommissioning of monitoring wells indicating ground water levels below EPA¿s Maximum Con

Site Name			
EPA ID # City Name	County	NPL – Status	Description
GOLDEN STRIP SEPTIC TANK SCD980799456 SIMPSONVILLE	Greenville	NPL-D	Lagoons containing industrial waste water pumped from area industries. Site has been delisted.  File indicates a YMCA Recreation Park was proposed for this site.
GROCE LABORATORIES INC (AQUA-TECH) SCD058754789 GREER	Spartanburg	NPL	Closed RCRA treatment, storage, and disposal facility. Approximately 7,000 drums, 97 aboveground tanks, 1,200 gas cylinders.
HELENA CHEMICAL CO - FAIRFAX SCD058753971 FAIRFAX	Allendale	NPL	The 13.5-acre Helena Chemical Company Landfill site is located in Fairfax, Allendale County, South Carolina and was operated as a pesticide manufacturing facility from mid 1960 through 1971. The site was first investigated in November 1980 by the South Carolina Department of Health and Environmental Control (SCDHEC) as the result of reports by a former employee of Helena that a waste dump was present on the site which contained pesticide residues and other waste materials. The facility is presently operated as a retail sales outlet for agricultural chemicals.  An extraction system is currently in place at the site. The EPA has proposed that monitoring wells be installed off-site because of suspected off-site contamination. Elevated levels of pesticides have been detected in the sediment samples taken from the landfill area and further characterization has been recommended to evaluate future treatment in this area.
HENRY'S KNOB AKA HENRY KNOB SCN000407376 CLOVER	York	NPL-E	Former open kyanite mine with low pH in surface water and contaminated soils and groundwater. Elevated metals in soil and groundwater.
INDEPENDENT NAIL CO SCD004773644 BEAUFORT	Beaufort	NPL-D	Wastewater discharged to on-site (no discharge) lagoon. Removal conducted on the lagoon. EPA delisted site. Currently under long term groundwater monitoring.

Site Name EPA ID #	G	NPL-	Na Na
City Name	County	Status	Description
INTERNATIONAL MINERALS AND CHEMICALS SCD003350493 SPARTANBURG	Spartanburg	NPL-E	The International Mineral and Chemical Corp. (IMC) site is an approximately 41-acre site located in the Arkwright neighborhood just south of Spartanburg, South Carolina. Surrounding properties include residential, industrial, and undeveloped areas. The site is bordered by an abandoned dump (the Arkwright Dump site), an active chemical manufacturing facility to the south, and Mt. Vernon Mills to the west.  The fertilizer facility operated from about 1910 until closure in 1987 for nitrogen-phosphorus-potassium fertilizer production. The primary operations at the site included:  A sulfuric acid production process constructed in 1947 and operated until1970. A superphosphate production process that continued until 1987. Before the 1970s, the plant had two primary lagoons, one for scrubber water and the other for plant sewage. Later, the sewage lagoon was expanded and divided into two lagoons: one for scrubber water and the other for storm water.  Only the security fence, some asphalt paving, the concrete floors to the main fertilizer building, the office and garage areas, and the former above ground bulk fuel storage area remain. The concrete potash storage area and a concrete pad north of the former trestle also remain.  The site is located in a 500-acre area that is the focus of a nationally-recognized revitalization effort known as the ReGenesis project. This project is led by the community organization, ReGenesis, Inc., and supported by numerous Federal, State, and local partners, including EPA, South Carolina Department of Health and Environmental Control (SCDHEC), and the City and County of Spartanburg.
			excavated most impacted soils to an offsite landfill.

Site Name			
EPA ID #		NPL-	Description
	County	Status	Description
KALAMA SPECIALITY SCD094995503 BURTON	Beaufort	I I	The 50-acre Kalama Specialty Chemicals site, located in Beaufort, Beaufort County, South Carolina, was formerly used by two separately operated specialty chemical companies. From 1973 to 1977, the first firm, Vega Chemical produced a wide range of chemicals in small special order batches. From 1977 until 1979, Kalama Specialty Chemicals manufactured fosamine ammonium, an herbicide and plantgrowth regulator, at the site. The facility was closed in 1979, after one of the reactors exploded setting the facility on fire and spilling various organic chemicals on the site.  After the explosion and fire, Kalama expanded operations from the original 16-acre property to include the adjacent 34-acre parcel consisting of a former trailer park, two treatment lagoons, and several structures.  Approximately 2500 residents live within one mile of the site. Operating properties abutting the site include a gas station, cement plant, and drive-in movie theater.  In June 1995, EPA excavated 604 cubic yards of contaminated soil and 80 cubic yards of contaminated sediment and removed them from the site. This removal action eliminated the potential for off-site contaminant migration.  Beginning in August 1995, an interim action ground water pump and treat system was used to evaluate operational issues of ground water treatment. The final, full-scale ground water pump and treat system was completed in July 1997 and has been operating continuously since December 1998.  Over the years, modifications have been made to the ground water treatment system to make it more effective. Since the last major modification to the system in January of 2000, the ground water treatment system has treated more than 128 million gallons of ground water and successfully removed over 162 pounds of benzene, 606 pounds of 1,2-dichloroethane, 388 pounds of
			ethylbenzene, 34 pounds of methylene chloride, and over 774 pounds of total xylenes.
KOPPERS CO INC SCD003353026 FLORENCE	Florence	NPL-R	Abandoned creosote & PCP lagoons.

Site Name EPA ID # City Name	County	NPL – Status	Description
KOPPERS CO/TREATING PLANT SCD980310239 CHARLESTON	Charleston	NPL	Large wood treatment plant that used creosote, pentachlorophenol, and chromated copper arsenate (CCA).
LEONARD CHEMICAL CO INC SCD991279324 · CATAWBA	York	NPL	The 7-acre Leonard Chemical Company site, located in Rock Hill, York County, South Carolina, began operating as a hazardous waste treatment facility in the late 1960s. The primary treatment method used by the facility was distillation, and the resulting recovery residues were placed in various locations on the site. When plant operations ceased in 1982, approximately 3,400 drums and 11,500 gallons of various chemicals were left on the site. Materials included solvents, volatile organic compounds (VOCs), printing inks, polyester solids, still bottom residues, and filters for paint, water, and fiberglass.  Approximately 5,900 people live within a 4-mile radius of the site; 240 people live within one mile.  As part of the design plan, installation of a SVE/Air sparging system, excavation of contaminated soils and removal of on-site debris has been completed.
LEXINGTON COUNTY LANDFILL SCD980558043 CAYCE	Lexington	NPL	County operated landfill that accepted industrial and domestic wastes. Also includes Old Cayce Dump Site and the Bray Park Dump. Currently there is a pump and treatment system on site. The landfill is closed with a cover. The site currently has a baseball field, driving range and Mini-Golf on top of the cap. Most recently a practice 3-Par Course was also put on site for the University of South Carolina Golf Team.

Site Name EPA ID #		NPL –	
City Name	County	Status	Description
LYMAN DYEING & FINISHING LANDFILL SCD987584653 LYMAN	Spartanburg	NPL-E	The Lyman Dyeing and Finishing site is located on a 12-acre peninsula in the southern portion of the town of Lyman, Spartanburg County, South Carolina. From 1924 to 1965, Lyman Dyeing and Finishing operated a landfill at the site which was used for disposal of various solid wastes from the facility mill operations. Past visual inspections have identified three discreet disposal areas. Two larger disposal areas are in the south central portion of the landfill area; a smaller disposal area is in the northwest portion of the landfill area.  The site is not listed on the National Priorities List (NPL), but is considered to be an NPL-caliber site and is being addressed through the Superfund Alternative Approach. This approach uses the same investigation and cleanup process and standards that are used for sites listed on the NPL.  The potentially responsible parties (PRPs) excavated and removed approximately 7,685 tons of contaminated soils, installed an engineered cap over the 3.5-acre landfill area, backfilled all ¿hot spot; areas (areas that contained the highest contamination levels prior to excavation), and installed additional monitoring wells. In addition, a fence was placed around the cap and appropriate signs were posted at the site to deter trespassing. All remedy activities were completed in October 2005.  Sampling to monitor ground water, surface water, and sediment in the wetlands and the Middle Tyger River is ongoing and expected to continue to monitor the effectiveness of the remedy.
MACALLOY CORPORATION SCD003360476 CHARLESTON, SC	Charleston	NPL	Ferro-chrome alloy producer using submerged electric arc furnaces. Chromium contamination from air pollution (precip. dust & tower sludge)

Site Name			
EPA ID #		NPL-	Description
City Name	County	Status	Description
MEDLEY FARMS SCD980558142 GAFFNEY  OLD CAYCE DUMP SITE	Cherokee	NPL	The Medley Farm Drum Dump site is located about five miles south of the town of Gaffney in rural Cherokee County, South Carolina. From 1973 to 1978, a 7-acre portion of the 62-acre farm property was used for storing drums of chemical wastes. In June 1983, EPA and the South Carolina Department of Health and Environmental Control (SCDHEC) investigated the site after a local resident reported the off loading of numerous drums on site. More than 5,400 drums were found buried at the property. The drums were in poor condition and many showed signs of previous leaks or were actively leaking. Six unlined lagoons containing 70,000 gallons of contaminated rain water and tons of sludges were also discovered on the site.  During June and July 1983, an EPA removal action collected and disposed of approximately 2,100 cubic yards of contaminated soil and refuse, 5,400 drums and other containers of hazardous wastes, and 70,000 gallons of contaminated water and sludge from the six unlined lagoons. The lagoons were then backfilled with clean soil.  Construction of both the soil vapor extraction system to treat soils and the 11-well ground water extraction and treatment system to treat ground water was completed in 1995. Both systems operated continuously until 2004. Supplemental dual-phase recovery wells to capture both soil vapor and ground water for treatment were installed in 2000 and 2001 to address areas where greater contamination was present.  As of September 2004, soil had met cleanup goals and the soil vapor extraction system and ground water treatment system were both turned off. Between October 2004 and August 2006, ground water nutrient injections were administered in order to enhance the natural biodegradation of lingering contaminants in the ground water. In 2007, a longer monitoring period of almost 12 months was approved by EPA, to test the degree to which favorable conditions would continue to prevail in site groundwater. In July- August 2008, injections were resume
SCD980844328	Lexington	NPLS	contamination in groundwater. Part of Lexington
SCD980844328 CAYCE	Lexington	NPLS	County Landfill Site.

Site Name			
EPA ID #		NPL -	
City Name	County	Status	Description
PALMETTO RECYCLING INC		Dutus	Battery recycling operation, acid(H2SO4) stored
SCD037398120	Richland	NPL-D	in a below ground sump, the lead plates were
COLUMBIA	Kicinana	IN L.D	shipped out of state for recycling.
PALMETTO WOOD			simpled out of state for recycling.
			Spillage of Copper Chromium Arsenic (CCA)
PRESERVING INC	Lexington	NPL	solution used for lumber treatment.
SCD003362217			solution used for lumber treatment.
CAYCE			TV 100 D Chang Gthoug Transite
			The 100-acre Para-Chem Southern, Inc. site, located in Simpsonville, Greenville County,
			South Carolina, is the site of an active
		-	manufacturing facility. The plant produces
			acrylic polymers, thickeners, latex coatings, and
			adhesives for a variety of consumer and
			industrial applications. Para-Chem notified EPA
			and the South Carolina Department of Health and
			Environmental Control (SCDHEC) regarding
			three areas on the Para-Chem Site where plant
			wastes were thought to have been buried between
			1975 and 1979. Wastewater from the plant was
			disposed of in two unlined lagoons until
			November 1984, when the SCDHEC issued Para-
			Chem a permit under the National Pollutant
			Discharge Elimination System (NPDES).
			Approximately 3,000 tons of drums, waste
			materials, soil, and debris were also removed
		NPL	from four former disposal areas in 1987.
PARA-CHEM SOUTHERN INC			1
SCD002601656	Greenville		During 1996, the potentially responsible parties
SIMPSONVILLE	0100111111	~ ~ ~	(PRPs) removed an additional 18,607 tons of
			contaminated waste materials from the site.
			Upgrades to the existing ground water recovery
			system were completed in 1998, and additional
	_		construction and well-installation work was
			completed during 2000-2001 to implement the
			remedy described in the ROD Amendment. The
	,		soil vapor extraction system operated from early
			2000 through mid-2001; treatment was
			terminated upon reaching the soil cleanup goals.
·			A pump and treatment system is in place to treat
			groundwater contamination. Contamination
			levels are not lowering enough therefore the PRP
			is researching other alternatives to pump and
			treatment, such as excavation, injection, etc. The
			Parachem property is being sold but the
			Parachem and chemical process on-site will
			remain the same. The Department is in the
			process of putting more current deed restrictions of the property.
ROCHESTER PROPERTY			or the property.
I		ĺ	Burial of industrial waste brought here from off
SCD980840698 TRAVELERS REST	Greenville	NPL	Burial of industrial waste brought here from off site.
		ĺ	Rurial of industrial waste brought here from off

Site Name		NPL-	
EPA ID # City Name	County	Status	Description
ROCK HILL CHEM- RUTLEDGE (BILL) PROPERTY SCD980844005 ROCK HILL	York	NPL	The Rock Hill Chemical Company site (a.k.a., Rutledge Property) is a 4.5-acre site located within the City of Rock Hill in York County, South Carolina. The site is bounded by Cherry Road and the former Rock Hill Mall to the south; commercial areas to the west: residential property (single-family dwellings) and an unnamed stream to the north; and a shopping plaza (i.e., The Market on Cherry Road) to the east. Land use in the vicinity of the site is light commercial and residential.  From 1960 through 1964, the site was the location of the Rock Hill Chemical Company (RHCC), a facility where paint solvents were distilled and reportedly, textile dye products were recovered. Paint sludges, textile dye products, still bottoms, and other wastes generated during the reclamation process were stored in piles placed directly onto the ground. In some cases, waste products were buried at the site. The company ceased operations late in 1964. In October 1964, a fire at the facility caused drums of oil and chemicals to explode, releasing their contents into the environment. Since that time, no other industrial activity has taken place at the site.  First Federal Savings Bank bought a portion of the property in 1972. In 1984, the bank began to construct a branch office on the property. During construction activities, it was discovered that the property was contaminated.  In 1986, contaminated soil as well as drums were excavated and disposed of at a hazardous waste landfill by the bank, under the supervision of the State.  In late 1987 -1989, on another parcel of land, waste from several tanks, the tanks themselves, and contaminated soil beneath the tanks were excavated and shipped to a hazardous waste landfill.  The ground water treatment system, required in the ROD, began operation in December 1995  The second Five-Year Review (FYR), completed in 2006, found that a protectiveness determination of the cleanup approach could not be made until further information about potential r

Site Name			
EPA ID # City Name	County	NPL – Status	Description
SANGAMO / BRAZEALE PROPERTY SCD980847297 PICKENS	Pickens	NPLS	PCB contamination from burial of transformers & capacitors. Part of the Sangamo Site. Also see 57011.
SANGAMO / CROSS ROADS CHURCH SCD980847354 PICKENS	Pickens	NPLS	Roadside dump w/PCB contamination from capacitor dumping. Part of Sangamo site.
SANGAMO / ERNEST NIX PROPERTY SCD980847172 PICKENS	Pickens	NPLS	Large gully where PCB wastes were disposed of, 1964-65. Part of the Sangamo Site.
SANGAMO / HAGOOD RESERVOIR SCD981470206 PICKENS	Pickens	NPLS	PCB stream sediment contamination. Part of Sangamo Operable Unit Two.
SANGAMO / MAW BRIDGE ROAD SCD981470255 PICKENS	Pickens	NPLS	PCB stream sediment contamination. Part of Sangamo Operable Unit Two.
SANGAMO / WELBORN PROPERTY SCD980847115 PICKENS	Pickens	NPLS	PCB waste materials allegedly dumped into a gully. Part of Sangamo OU-1.
SANGAMO TROTTER- DODGENS SCD981474836 SUNSET	Pickens	NPLS	This site is part of the Sangamo PCB investigations.

Site Name		3. DDY	
EPA ID # City Name	County	NPL – Status	Description
SANGAMO/LAKE HARTWELL OPERABLE UNIT 2 SCS123456847	Pickens	NPL	Sangamo Weston, Inc. owned and operated a capacitor manufacturing plant in Pickens, South Carolina, from 1955 to 1987. During operations, Sangamo used several varieties of fluids which contained polychlorinated biphenyls (PCBs). Waste was disposed of on the plant site as well as at six satellite disposal areas within a 3-mile radius of the plant. PCBs were also discharged with effluent directly into Town Creek, a tributary of Twelve Mile Creek. Twelve Mile Creek is a major tributary of the 56,000 acre Lake Hartwell. As a result of a merger with Sangamo Weston, the potentially responsible party (PRP) for the site is Schlumberger based in Houston, Texas.
			Construction of all physical components necessary to achieve cleanup goals at the site is complete. However, various remedial operations will continue until certain cleanup goals are met. EPA has deleted portions of the site from the NPL where all response actions are complete and all cleanup goals have been achieved. Specific cleanup activities include the following:
PICKENS			Approximately 60,000 tons of PCB impacted material has been excavated and treated. Treated soil was backfilled on the plant site, capped with top soil, graded and properly restored.  Groundwater recovery and treatment systems installed at the Breazeale and plant sites have recovered 215 million gallons of groundwater, and removed 966 pounds of chlorinated solvents and 7.2 pounds of PCBs.  A fish consumption advisory, warning the public against eating fish from the Seneca River Arm of Lake Hartwell and Twelve Mile Creek, has been in place since 1976, and since modified.  The Public Education Program was initiated in 1998 to make users of Lake Hartwell aware of current fish consumption advisories that pertain to consumption of fish harvested from the Lake. Annual monitoring of sediments and aquatic biota has been conducted each year since 1994. EPA has also conducted three phases of research on Lake Hartwell. In general, PCB sediment concentrations hav

Site Name			
EPA ID # City Name	County	NPL – Status	Description
SANGAMO/TWELVE- MILE/HARTWELL SCD003354412 PICKENS	Pickens	NPL	Sangamo Weston, Inc. owned and operated a capacitor manufacturing plant in Pickens, South Carolina, from 1955 to 1987. During operations, Sangamo used several varieties of fluids which contained polychlorinated biphenyls (PCBs). Waste was disposed of on the plant site as well as at six satellite disposal areas within a 3-mile radius of the plant. PCBs were also discharged with effluent directly into Town Creek, a tributary of Twelve Mile Creek. Twelve Mile Creek is a major tributary of the 56,000 acre Lake Hartwell. As a result of a merger with Sangamo Weston, the potentially responsible party (PRP) for the site is Schlumberger based in Houston, Texas.  Construction of all physical components necessary to achieve cleanup goals at the site is complete. However, various remedial operations will continue until certain cleanup goals are met. EPA has deleted portions of the site from the NPL where all response actions are complete and all cleanup goals have been achieved. Specific cleanup activities include the following:  Approximately 60,000 tons of PCB impacted material has been excavated and treated. Treated soil was backfilled on the plant site, capped with top soil, graded and properly restored. Groundwater recovery and treatment systems installed at the Breazeale and plant sites have recovered 215 million gallons of groundwater, and removed 966 pounds of chlorinated solvents and 7.2 pounds of PCBs.  A fish consumption advisory, warning the public against eating fish from the Seneca River Arm of Lake Hartwell and Twelve Mile Creek, has been in place since 1976, and since modified.  The Public Education Program was initiated in 1998 to make users of Lake Hartwell aware of current fish consumption advisories that pertain to consumption of fish harvested from the Lake. Annual monitoring of sediments and aquatic biota has been conducted each year since 1994. EPA has also conducted three phases of research on Lake Hartwell. In general, PCB sediment concentrations hav
SCR&D BLUFF ROAD SITE SCD000622787	Richland	NPL	Drum storage facility where wastes were originally planned to be recycled.
COLUMBIA SCR&D DIXIANA		****	
SCD980711394 CAYCE	Lexington	NPL	Drum storage site. Wastes originally planned for recycling.

Site Name EPA ID # City Name	County	NPL – Status	Description
SHURON TEXTRON INC SCD003357589 BARNWELL	Barnwell	NPL	Plant operated from 1958 to 1992. Sludge lagoons and two drying basins containing VOCs and metals. Two debris areas containing drums and plant waste are present. The RI/FS was completed for the site. ROD was written for the site.
STONO PHOSPHATE WORKS SC0002316404 CHARLESTON	Charleston	NPL-E	The 15-acre Stono Phosphate Works site is located on the Ashley River in Charleston, Charleston County, South Carolina. From approximately 1900 to the late 1950s, the site was used for the production of phosphate fertilizer. The phosphate-based fertilizer manufacturing process involved reacting phosphate ores with sulfuric acid to produce phosphoric acid, the building block of Nitrogen-Phosphorus-Potassium (N-P-K) agricultural fertilizers. Sulfuric acid was made at the site and stored in lead-insulated chambers.  The site is not listed on the National Priorities List (NPL), but is considered to be an NPL-caliber site and is being addressed through the Superfund Alternative Approach. This approach uses the same investigation and cleanup process and standards that are used for sites listed on the NPL.  The Non-Time-Critical Removal Action selected in the EPA Action Memorandum is scheduled to commence, and be completed, in 2011. The estimated cost of the remedial action is \$4,579,000.

Site Name		) IDI	
EPA ID # City Name	County	NPL – Status	Description
SWIFT AGRI-CHEM CORP SCD058181991 CHARLESTON	Charleston	NPL-E	The Swift Agri-Chem site is approximately 43.6 acres and is located on the Ashley River in Charleston, South Carolina. The site was used for phosphate fertilizer manufacturing from 1891 to 1975. Phosphate-based fertilizer manufacturing at the site involved reacting phosphate ores with sulfuric acid to produce phosphoric acid, the building block of Nitrogen-Phosphorus-Potassium agricultural fertilizer. Sulfuric acid was made at the site and stored in lead-insulated chambers.  In 2004, an Engineering Evaluation/Cost Analysis (EE/CA) was completed. The purpose of the EE/CA was to evaluate the nature and extent of site-related contamination, and the potential risks to public health and the environment caused by the release or threatened release of hazardous substances from the site. In addition, alternatives or options for addressing the contamination at the site were developed and evaluated during the EE/CA.  After the EE/CA was completed, EPA signed an Action Memorandum which authorizes the use of a Non-Time-Critical Removal Action (NTCRA) at the site, and provides a description of the preferred alternatives selected to address the site-related contamination. The design for the NTCRA was completed in the summer 2008. The estimated cost of the NTCRA is \$6,586,000.  The NTCRA was scheduled to begin in 2009; however, the exact schedule for conducting the NTCRA has not been developed since plans to redevelop the site have been put on hold.
TIN PRODUCTS - RED BANK CREEK SCSFN0407133 LEXINGTON	Lexington	NPL-E	Chemical production plant that released an unknown volume of chemicals (organotin) to its wastewater discharge line. The release disabled the city's wastewater treatment plant at Two Notch Rd & resulted in fish kills along Red Bank Creek & Crystal Lake

EPA ID # City Name  County  NF Sta	
	The 50-acre Townsend Saw Chain Co. site is a
TOWNSEND SAW CHAIN CO SCD980558050 PONTIAC	approximately two miles south of Pontiac, Richland County, South Carolina. Starting in 1971, Textron Inc. began utilizing the facility for manufacturing the saw chain component of chain saws. Between 1964 and 1981, under both Textron, Inc. and a previous owner, Dictaphone Inc., waste rinse waters from on-site plating and parts-assembly processes were discharged to the ground surface in a low-lying area adjacent to the facility. These discharges are the origin of the ground water and soil contamination.  Currently AMBAC International (formerly American Bosch), a manufacturer and supplier of fuel injection equipment, operates the facility.  Cleanup began at this site in the early 1980s with the installation of a ground water pump and treat system. This system operated until 2002 and recovered more than 550 pounds of chromium from the ground water.  During 1995-1996, approximately 75 tons of soil

Site Name EPA ID # City Name	County	NPL – Status	Description
TROTTER HILL RD SCD981750334 PICKENS	Pickens	NPLS	Part of Sangamo Site.
US DOE SRS / SAVANNAH RIVER PLANT SC1890008989 AIKEN	Aiken	NPL	Federal site currently being handled on federal level. (01/28/88)
USMC MARINE CORPS RECRUIT DEPOT SC6170022762 PARRIS ISLAND	Beaufort	NPL	Federal site currently being handled on federal level. (01/28/88)
WAMCHEM INC SCD037405362 BURTON	Beaufort	NPL	Until the late 1970s, Wamchem, Inc., synthesized organic chemicals and formulated color concentrates on 200 acres in Burton, Beaufort County, South Carolina. It disposed of its wastes (including phenols, lead, cadmium, and solvents) in an evaporation lagoon. Then it switched to spraying its wastes onto two fields. State monitoring of wells on-site has detected lead, chromium, toluene, dichloronitroethane, and benzene. Some 1,000 to 2,000 people get drinking water from the shallow aquifer within 3 miles of the site. Surface water is contaminated with the same chemicals, but it does not supply drinking water at this time. The company is conducting further ground water studies to determine the impact of the spray fields and disposal lagoon.


#### Appendix F

# List of Standard Acronyms

ACA	Administrative Consent
	Agreement
ACO	Administrative Consent Order
AST	Aboveground Storage Tank
AR	Administrative Record
BRA	Baseline Risk Assessment
BTEX	Benzene, Toluene, Ethylbenzene
	and Xylene
CA	Consent Agreement
CERCLA	Comprehensive Environmental
	Response, Compensation, and
	Liability Act of 1980
CERCLIS	Comprehensive Environmental
CLICCEID	Response, Compensation and
	Liability Information System
CO	
	Consent Order
COE	U.S. Army Corps of Engineers
DHEC	South Carolina Department of
	Health and Environmental
N. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	Control
DOD	U.S. Department of Defense
DOE	U.S. Department of Energy
DOJ	U.S. Department of Justice
EE/CA	Engineering Evaluation/Cost
	Analysis
EPA	U.S. Environmental Protection
	Agency
ESI	Expanded Site Investigation
FFA	Federal Facilities Agreement
FOIA	Freedom of Information Act
FS	Feasibility Study
FY	Fiscal Year
HRS	Hazard Ranking System
MCL	Maximum Contaminant Level
NCP	National Contingency Plan
NPDES	National Pollution Discharge
INF DES	Elimination System
NDT	
NPL NBD	National Priorities List
NRDs	Natural Resource Damages
NRP	Non-Responsible Party
NOSW	Notification of Site Work
O&M	Operation and Maintenance
OSHA	Occupational Safety and Health
4 - 11 - 2 - 11	Administration
OUI	Operable Unit 1
OU2	Operable Unit 2
PA	Preliminary Assessment

PAHs Polynuclear Aromatic Hydrocarbons PCB Polychlorinated Biphenyl PCE Perchloroethylene, Tetracloroethylene PER Preliminary Engineering Repor	
PCB Polychlorinated Biphenyl PCE Perchloroethylene, Tetracloroethylene	
PCE Perchloroethylene, Tetracloroethylene	
Tetracloroethylene	- 1
PER Preliminary Engineering Repor	ļ
	t
PIP Project Information Package	
POTW Publicly Owned Treatment	
Works	
PRP Potentially Responsible Party	ļ
RA Remedial Action	]
RCRA Resource Conservation and	
Recovery Act of 1976	1
RD Remedial Design	
RD/RA Remedial Design/Remedial	· ;;;
Action	
RI Remedial Investigation	
RI/FS Remedial	
Investigation/Feasibility Study	-55
ROD Record of Decision	
RP Responsible Party	
RPM Remedial Project Manager	
RQ Reportable Quantity	
SARA Superfund Amendments and	
Reauthorization Act of 1986	
SI Site Investigation	
SOW Scope of Work	
SVOCs Semi-Volatile Organic	
Compounds	
TBSA Targeted Brownfields Site	
Assessment	
TCA Trichloroethane	
TCE Trichloroethene	
TCLP Toxicity Characteristic Leaching	ıg
Procedure	
TSDF Treatment, Storage and Dispos	al
Facility	
USEPA United States Environmental	
Protection Agency	
UST Underground Storage Tank	
VCC Voluntary Cleanup Contract	
VCP Voluntary Cleanup Program	
VOCs Volative Organic Compound	

	,	
·		

### Glossary of Terms

- Abatement Reducing the degree or intensity of, or eliminating, pollution.
- <u>Acute exposure</u> A single exposure to a toxic substance, which may result in severe biological harm or death.
- <u>Administrative Consent Agreement</u> A legally binding and enforceable agreement between the South Carolina Department of Health and Environmental Control and potentially responsible parties to perform or pay for site studies or cleanups.
- <u>Administrative Record</u> All documents which USEPA or the Department considered or relied upon in selecting the response action at a Superfund site, culminating in the record of decision for remedial action or an action memorandum for removal actions.
- Aeration A process that promotes breakdown of contaminants in soil or water by exposing them to air.
- <u>Air Stripping</u> A process whereby volatile organic compounds (VOCs) are removed from contaminated water by forcing a stream of air through it in a pressurized vessel. The contaminants evaporate into the air stream. The air may be further treated before it is released into the atmosphere.
- <u>Aquifer</u> An underground layer of rock, sand or gravel capable of storing water within cracks and pore spaces (i.e. between grains). The water contained in the aquifer is called groundwater.
- <u>Backfill</u> An excavated area that is refilled with earth; or the material itself that is used to refill an excavated area.
- Background Level The naturally occurring level of an element or compound in the environment.
- <u>Brownfields</u> Properties where expansion, reuse, or redevelopment is complicated by real or perceived environmental contamination.
- <u>Cap</u> A layer of material, such as clay or a synthetic material, used to prevent direct contact with waste materials or to prevent rainwater from penetrating through a contaminated area and spreading contaminated materials. The surface cap is generally mounded or sloped so water will drain off of the cap.
- Carcinogen Any substance that can cause or aggravate cancer.
- <u>Closure</u> The process by which a landfill stops accepting wastes and is shut down under guidelines that ensure that public health and the environment are protected.
- Coal Gasification Conversion of coal to a gaseous product by one of several available technologies.
- <u>Consent Agreement</u> A legally binding and enforceable agreement between DHEC and potentially responsible parties to perform or pay for site studies or cleanups.
- Consent Decree A legal document, approved and issued by a judge, formalizing an agreement between USEPA or the Department and the parties potentially responsible for site contamination. The decree usually describes cleanup actions that the potentially responsible parties are required to perform.
- <u>Contaminant</u> Any physical, chemical, biological, or radiological substance or matter that has an adverse effect on air, water, or soil.
- <u>Contamination</u> Introduction into water, air, and soil of microorganisms, chemicals, toxic substances, wastes, or wastewater in a concentration that makes the medium unfit for its next intended use. Also applies to surfaces of objects, buildings, and various household and agricultural use products.
- <u>Cost Recovery</u> A legal process by which potentially responsible parties who contributed to contamination at a Superfund site can be required to reimburse the Hazardous Waste Contingency Fund for money spent during any cleanup actions by the state.
- <u>Downgradient</u> The direction that groundwater flows; similar to "downstream" for surface water.
- Dredging Removal of mud from the bottom of water bodies.
- Effluent Wastewater, treated or untreated, that flows out of a treatment plant, sewer or industrial outfall.
- Emergency Planning and Community Right-To-Know Act (EPCRA) Also know as Superfund Amendments and Reauthorization Act (SARA) title III, provides an infrastructure at the state and local levels to plan for chemical emergencies. Facilities that store, use, or release certain chemicals, may be subject to various reporting requirements under EPCRA. Reported information is then made publicly available so that interested parties may become informed about potentially dangerous chemicals in their community.

- **Environment** The sum of all external conditions affecting the life, development and survival of an organism.
- Environmental Justice (EJ) This is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income in the development, implementation, and enforcement of environmental laws, regulations, and policies.
- <u>Facility Evaluation</u> An inspection of a facility to confirm the release or imminent threat of release of hazardous substances, to develop information to evaluate the threat to public health and/or the environment, and to determine the relative priority of a facility.
- <u>Facility Identification</u> The identification of facilities using the existing reporting requirements for release of hazardous substances, complaints from the public and reports from other agencies or parties.
- <u>Feasibility Study (FS)</u> A detailed evaluation of alternatives for cleaning up a site. A feasibility study follows the remedial investigation phase.
- <u>Geographic Information System (GIS)</u> This system electronically manages geographically referenced data. Through GIS, such data can be displayed, assembled, stored, and manipulated, and is frequently displayed in a map format. Examples of the use of GIS include county boundaries, land use, and pollution-monitoring locations.
- <u>Hazard Ranking System</u> This is the principle screening tool used by USEPA to place waste sites on the National Priorities List (NPL). It is a numerically based screening system that uses information from initial, limited investigations the preliminary assessment and the site inspection to assess the relative potential of sites posing a threat to human health or the environment.
- Heavy Metals Metallic elements with an atomic weight greater than sodium.
- **Hydrocarbons** Chemical compounds that consist entirely of carbon and hydrogen.
- <u>Identification and Notification of Potentially Responsible Parties (PRPs)</u> Upon site identification, the Department will initiate actions to identify and notify the PRPs associated with a facility where a release or imminent threat of a release has been confirmed.
- <u>Initial Investigation</u> An initial investigation will determine if a release or imminent threat of release of hazardous substances may have occurred that warrants further action, such as a field visit and examination of existing records.
- <u>Inorganic Compound</u> Generally encompasses elements and substances that do not contain carbon.
- <u>Interim Action</u> An action which may be required at any time before the selection of final remedial action to prevent, minimize, or mitigate harm to public health and/or the environment.
- Lagoon A shallow pond where sunlight, bacterial action, and oxygen work to purify wastewater.
- Landfill A disposal facility where waste is placed in or on land.
- <u>Leachate (n)</u> The liquid that trickles through or drains from waste, carrying soluble components from the waste. Leach, Leaching (v.t.) The process by which soluble chemical components are dissolved and carried through soil by water or some other percolating liquid.
- <u>Letter of Agreement</u> A letter, in contractual form, that commits the signing party to demonstrate that any groundwater contamination on his property has an off-site source. In exchange for this demonstration, the Department agrees not to hold the property owner liable for the groundwater contamination.
- <u>Maximum Contaminant Level (MCL)</u> The maximum permissible level of a contaminant in water delivered to any user of a public system. MCLs are enforceable standards.
- <u>Migration</u> The movement of oil, gas, contaminants, water or other liquids through porous and permeable rock.
- Monitor Well 1) A well used to obtain water quality samples or measure groundwater levels. 2) A well drilled at a hazardous waste management facility or Superfund site to collect ground-water samples for the purpose of physical, chemical, or biological analysis to determine the amounts, types, and distribution of contaminants in the groundwater beneath the site.
- National Contingency Plan (NCP) Also known as the National Oil and Hazardous Substances Pollution Contingency Plan, is the federal regulation required by Section 105 of the Comprehensive Environmental Response, Compensation and Liability Act that provides the organizational structure and procedures for preparing and responding to releases of hazardous substances into the environment.
- <u>National Priorities List (NPL)</u> USEPA's list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under Superfund.

- <u>Non-Responsible Party (NRP)</u> Parties, including future property owners, who did not contribute to the contamination at a site and are not liable for costs related to response actions.
- Occupational Safety and Health Administration (OSHA) A Federal agency whose goals are to save lives, prevent injuries, and protect the health of America's workers. Staff establishes protective standards, enforces those standards, and reaches out to employers and employees through technical assistance and consultation programs.
- Operation and Maintenance (O&M) These activities protect the integrity of a Superfund site's cleanup plan. O&M measures are initiated by the Division after cleanup objectives have been reached, and the site is determined to be operational and functional.
- <u>Organic Compound</u> Generally encompasses substances that contain carbon.
- Operable Unit (OU) A portion of a Superfund site that is addressed separately from the rest to allow for easier management or a more timely response.
- Plume A body of contaminated groundwater flowing from a specific source.
- <u>Potentially Responsible Parties (PRPs)</u> Parties are individuals, companies, owners, or any other party who may have contributed to the contamination at a Superfund site and are liable for payment of costs related to response actions.
- <u>Preliminary Assessment (PA)</u> The process of collecting and reviewing available information about a known or suspected hazardous waste site or release.
- Record of Decision (ROD) A public document that explains which cleanup alternative(s) will be implemented at a contaminated site. It includes the official documentation of the cleanup technology that will be implemented.
- Recovery Well A well used to reclaim or capture contaminated groundwater.
- **Remedial Action (RA)** The implementation of the remedy outlined in the Record of Decision for a contaminated site.
- **Remedial Design (RD)** The phase of remediation that follows the selection of a remedy and includes development of engineering drawings and specifications for a site cleanup.
- <u>Remedial Investigation (RI)</u> Process of collecting data necessary to adequately characterize the site for the purpose of developing and evaluating remedial alternatives.
- <u>Remedial Investigation and Feasibility Study (RI/FS)</u> Its purpose is to assess site conditions and evaluate alternatives to the extent necessary to select a remedy.
- **Remediation** The process of providing a remedy to cleanup a site.
- Resource Conservation and Recovery Act (RCRA) protects human health and the environment from the potential hazards of waste disposal, conserves energy and natural resources, reduces the amount of waste generated, and ensures that wastes are managed in an environmentally sound manner.
- <u>Runoff</u> The discharge of water over land into surface waters. It can carry pollutants from the air and land into receiving waters.
- <u>Safe Drinking Water Act</u> This Act protects the quality of drinking water in South Carolina and the U.S. This law focuses on all waters actually or potentially designed for drinking use, whether from above ground or underground sources.
- <u>Scope of Work</u> A general description of the work intended at a site. It includes the media to be sampled and the constituents analyzed for, but not necessarily location and sample number.
- <u>Sediment</u> The layer of soil, sand, and minerals at the bottom of surface waters (such as streams, lakes and rivers) that absorb contaminants.
- <u>Site Inspection/Investigation (SI)</u> The collection of information from a Superfund site to determine the extent and severity of hazards posed by the site. It follows and is more extensive than a preliminary assessment.
- <u>Sludge</u> Semi-solid residues from industrial or water treatment processes that may be contaminated with hazardous materials.
- <u>Sparging</u> Injection of air below the water table to strip dissolved volatile organic compounds and/or oxygenate ground water to facilitate aerobic biodegradation of organic compounds.
- Sump A pit or tank that catches liquid runoff for drainage or disposal.
- <u>Surface Water</u> All water naturally open to the atmosphere (rivers, lakes, reservoirs, ponds, streams, impoundments, seas, estuaries, etc.)
- <u>Toxicity Characteristic Leaching Procedure (TCLP)</u> A laboratory test to determine whether a material must be handled as a hazardous waste.

- <u>Treatment, Storage and Disposal Facility (TSDF)</u> A facility where a hazardous substance is treated, stored, or disposed. TSD facilities are regulated by USEPA and the Department under RCRA.
- <u>Trichloroethylene (TCE)</u> A stable, colorless liquid with a low boiling point that has many industrial applications, including use as a solvent and metal degreasing agent.
- <u>Underground Storage Tank (UST)</u> A tank and any underground piping connected to the tank that is located at least partially (10%) underground and designed to hold gasoline or other petroleum products or chemicals.
- <u>Up gradient</u> An area or direction that is topographically and/or hydraulically higher than contaminated areas and, therefore, are not prone to contamination by the movement of polluted groundwater.
- <u>Volatile Organic Compounds (VOCs)</u> VOCs are made as secondary petrochemicals. They include light alcohols, acetone, trichloroethylene, perchloroethylene, dichloroethylene, benzene, vinyl chloride, toluene and methylene chloride. These potentially toxic chemicals are used as solvents, degreasers, paint thinners and fuels.
- <u>Voluntary Cleanup Program</u> The State program designed to provide incentives for parties to voluntarily conduct response actions at sites by providing liability protection and/or covenants not to sue.
- <u>Wetlands</u> An area that is regularly saturated by surface or groundwater and, under normal circumstances, is capable of supporting vegetation typically adapted for life in saturated soil conditions.