

**STATEMENT OF BASIS**  
**Former Royster Company Facility**  
**Chesapeake, Virginia 23324**  
**EPA ID # VAD 003178126**

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## **I. Introduction**

The United States Environmental Protection Agency (EPA) has prepared this Statement of Basis for the Former Royster Company Facility (“the Facility”), Chesapeake, Virginia. The purpose of this Statement of Basis is to explain the RCRA Corrective Action investigation and corrective measures for soil that have been completed at the site. After a site inspection of the Facility and a review of site related files, EPA recommends that a final decision of Corrective Action Complete with Controls. The purpose of this document is to solicit public comment on EPA’s recommendation for this facility.

For more information on the RCRA Corrective Action Program, visit the Region III web site at [www.epa.gov/reg3wcmd/correctiveaction.htm](http://www.epa.gov/reg3wcmd/correctiveaction.htm). The corrective action program is designed to ensure that facilities have investigated and cleaned up any releases of hazardous waste or constituents that may have occurred at their property. Region III is using the administrative procedures found in 40 CFR Part 270 to solicit public comment prior to making its final corrective action decision for the Former Royster Company Facility property.

## **II Facility Background**

This plant (also referred to as the Royster Company Money Point Plant) manufactured commercial fertilizer from approximately the mid-1930s until 1973. From 1978 through 1986, waste piles and mixing operations took place with metal constituents such as zinc, chromium, lead, and cadmium. According to the 1986 Facility Management Plan, the only regulated hazardous waste managed by the Royster facility was emission control dust/sludge from the primary production of steel in electric furnaces (K061). The waste was mixed with non-hazardous zinc rich filter cake sludge. The emission control dust/sludge and the zinc rich filter cake sludge were both generated from off-site operations and brought to the Royster site. According to a letter from Royster to USEPA Region III dated March 18, 1986, the mixture was then transferred to Royster’s South Norfolk facility and used as feed stock for the production of commercial fertilizer.

In December 1985, Elizabeth River Terminals (ERT) purchased the site from Royster. Kinder Morgan purchased ERT in 2001, and is the current owner of the former Royster site. According to Kinder Morgan, the site buildings were demolished between 1989 and 1993. As of May 1986, Royster no longer received or handled hazardous waste.

### Facility Location

The Facility is located on Pratt Street in Chesapeake, Virginia. The site is located in a heavily industrialized area along the Elizabeth River (the Elizabeth River borders the site to the north and west). The 35-acre former Royster site is currently maintained by Kinder Morgan as part of an area wide nature conservancy along the Elizabeth River, under oversight and guidance of the Elizabeth River Project, a non-profit organization. The site is divided into three parts by three drainage swales, the largest is in the middle and is 16 acres in size. This area is also believed to

be where all the Royster operations were located. The former Royster buildings have been demolished and the building debris has been disposed offsite. The site has been regraded and reseeded/replanted with vegetative species typical of the lower coastal plain soils and coastal area wetlands. Several marsh and wetlands development projects are planned for the Elizabeth River in the vicinity of the site, including a wetlands restoration project at the former Royster property.

### **III Description of SWMUs**

On November 28, 2006, a RCRA Corrective Action (CA) site visit was conducted and a meeting was held at the former Royster facility site by representatives of the EPA, the Virginia Department of Environmental Quality (VDEQ), the EPA's contracted consultant, and Kinder Morgan. In addition to the above, the facility's administrative record was researched and applicable administrative records were summarized and compiled based upon file searches of the DEQ's Central Office, Office of Hazardous Waste, RCRA files, and the DEQ's Regional Office files (all media), and the EPA's RCRA file records. A summary of the salient findings associated with the above meeting, site visit, and file searches of the facility's administrative record, were compiled in a Final RCRA Corrective Action (CA) Site Visit Report, dated March 2007.

The Final RCRA CA Site Visit Report, dated March 2007, is the primary basis for the determination whether the facility is in need of a CA investigation to assess potential releases of hazardous waste or hazardous constituents from the facility's Solid Waste Management Units (SWMUs) or Areas of Concern (AOCs) or if the EPA can recommend that Corrective Action is Complete with or without institutional controls for the facility site. The findings in the Final RCRA CA Site Visit Report are the primary basis for the development of this Statement of Basis for Corrective Action Complete with institutional controls at the facility site.

#### **SWMU #1 - Former Mixing Tank**

This open top plate steel tank was used to receive and mix two waste streams; one hazardous and one non-hazardous. The dimensions of this unit were 36 feet, 6 inches by 38 feet, 8 inches; the tank was 46 inches high. The carbon steel plate tank covered the entire front room of the process building. Kinder Morgan indicated that this structure was actually a small processing building, that was lined with metal plates (the floor and all four walls). The 1986 Facility Management Plan also refers to this SWMU as a storage tank.

Operation of this unit reportedly began in December 1985. A letter from Royster to the Virginia Department of Health dated May 1986 indicated that the facility no longer handled hazardous waste. Therefore, it is assumed that the mixing tank was no longer in use by 1986.

Wastes managed included granulated emission control dust from the electric furnaces of a nearby steel production process and a zinc-rich, non-hazardous filter cake sludge from a nearby zinc sulfate production process. The dust had a high zinc content with low concentrations of hexavalent chromium, lead, and cadmium. The waste was mixed with non-hazardous zinc-rich filter cake sludge. Each batch mixing operation could process approximately 100 tons of

material per year. This process was conducted three to six times per year. According to a letter from Royster to USEPA Region III dated March 18, 1986, the mixture was then transferred to Royster's South Norfolk facility and used as feedstock for the production of commercial fertilizers.

### **SWMU #2 - Former Waste Piles A and B**

According to a July 1986 Facility Management Plan, two indoor storage waste piles (A and B) were in use at the site. Waste Pile A operated from 1978 to September 1984. It was located inside a warehouse building, which was destroyed during a windstorm in September 1984. The warehouse structure was 150 feet by 250 feet in size. Approximately 5,000 tons of material were mixed here during this unit's operational period according to a March 18, 1986 letter from Royster to USEPA Region III. Waste Pile B replaced Waste Pile A and was operated in a warehouse structure adjacent to Waste Pile A. Dimensions of this building were 100 feet by 50 feet. It operated from September 1984 and was used until SWMU #1 was constructed in this building in December 1985. It appears that SWMU #1 replaced SWMU #2. Wastes managed included granulated emission control dust from the electric furnaces of a nearby steel production process and a zinc-rich, non-hazardous filter cake sludge from a nearby zinc sulfate production process.

### **SWMU #3 - Former Container Storage Area**

This unit was described in the facility's RCRA Part A Permit Application Description as having a capacity of 7,630 gallons for the management of corrosive waste (D002). The dates of operation of this unit are not known. Based on discussions during a November 28, 2006 site visit, it is suspected that this SWMU may not have ever existed. It is possible that it was included in the Part A RCRA Permit Application so that the facility would be in compliance in the event it was constructed. No evidence of a spill or release associated with this SWMU was found during the site visit or in the files reviewed at the VDEQ or USEPA Region III offices.

### **SWMU #4 - Former Spent Sulfuric Acid Holding Area**

Spent sulfuric acid was used as a feedstock for the manufacturing of fertilizer. The facility's RCRA Part B Permit Application stated that spent sulfuric acid was not considered a hazardous waste under Virginia Waste Management regulations. The spent sulfuric acid was received at Money Point (this facility) and shipped to the main Royster facility (nearby but offsite) without being unloaded. The dates of operation of this unit are not known.

## **IV Summary of Proposed Corrective Measures/Remedial Action**

EPA acknowledges that an evaluation of multiple alternatives is not always necessary, particularly if a remedy decision can be determined based on previous investigations/remedial actions, and RCRA site characterization investigations.

In this case, the waste pile unit (SWMU No. 2) at the Royster property underwent closure activities that included five rounds of sampling and analyses, and three rounds of soil excavation and removal. The foundation of the building that formerly housed the waste pile facility was demolished and also removed prior to closure.

In addition, the tank mixing unit (SWMU No. 1) has been closed in general accordance with the approved Closure Plan for this SWMU. Closure activities included four rounds of sampling and analyses, and three rounds of soil excavation and removal. In addition to the excavation of contaminated soil, the building housing the tank mixing facility and the foundation were also demolished and removed. These actions have mitigated any environmental impacts from historic operations and have resulted in the Facility posing no unacceptable risk to human health and the environment.

The distribution of residual contaminants in soils (post remedial action) at the SWMUs is such that there is insufficient mass of contamination in any one area to remain a concern for potential leaching to groundwater. In December 1988, the facility was inspected by a representative from the Virginia Department of Waste Management. Based on the December 1988 site visit, the Virginia Department of Waste Management determined that the company had completed a clean closure at the Facility. EPA Region III agrees with this determination.

Furthermore, the former Royster property is presently included as part of the Money Point Revitalization Plan, one of the largest environmental restoration efforts on the Chesapeake Bay. The revitalization plan will include remediating an area just offshore of the Royster site. The contaminants of concern identified at this offshore location are not related to activities that occurred on the former Royster property. As part of the Money Point Revitalization Plan, Kinder Morgan, the current property owner, has placed the former Royster property in a conservation agreement with the Elizabeth River Project, a community-based non-profit organization leading restoration of the Elizabeth River. The Money Point revitalization plan includes a large wetland restoration project that will take place on a portion of the former Royster property. The wetland restoration will greatly improve the shoreline of the site. It is anticipated that future use of the remaining Royster property will be as open space as part of the wetlands restoration project or for some industrial purpose.

## **V State Acceptance**

Various Virginia State Offices and the USEPA provided oversight for activities at the former Royster property during the operating years of the facility through facility close out. The Virginia Department of Waste Management was the lead agency during the closure of the facility. The agency worked with the property owners through three rounds of contaminated soil excavation and removal, and confirmation analyses before approving the closure of the facility in June 1989.

Additional soil samples were collected in 2006 through the Elizabeth River Project as part of the wetland restoration effort at the site.

Based on the sampling results under RCRA Closure of the SWMU No. 1 and 2 and the more recent facility soil sampling, the (VDEQ) and the USEPA agree that Corrective Action is Complete at the facility provided that future use of the property will be restricted to industrial use and/or wetlands revitalization. The facility will be required to file a notice with the Recorder of Deeds in the City of Chesapeake to prohibit residential use of the property as the institutional control measure to meet the Corrective Action is Complete with Controls Determination.

If residential use for this property is proposed in the future, the site soils would have to be rescreened and reevaluated to demonstrate acceptable levels of constituents of concern for unrestricted residential uses.

## **VI Public Participation**

EPA is requesting comments from the public on its proposal of Corrective Action Complete with Controls . The public comment period will last forty-five (45) calendar days from July 16,2008 the date that this matter is publicly noticed in the Virginian-Pilot. Comments may be sent to EPA in writing at the EPA address listed below, and all commenters will receive a copy of the final decision and a copy of the response to comments.

A public meeting will be held upon request. Requests for a public meeting should be made to Mr. Bill Wentworth of the EPA Regional Office at the address below or at (215) 814-3184.

The Administrative Record contains all information considered by EPA when making this proposal of Corrective Action Complete with Controls. The Administrative Record is available at the following locations:

U.S. Environmental Protection Agency  
Region III  
1650 Arch Street - 3WC23  
Philadelphia, PA 19103-2029  
Contact: Bill Wentworth      Voice: (215) 814-3184  
Fax: (215) 814-3113  
Hours: Mon-Fri, 9:00 A.M - 5:00 P.M.  
E-mail: [wentworth.william@epa.gov](mailto:wentworth.william@epa.gov)

The Elizabeth River Project  
475 Water Street, Suite C103A  
Portsmouth, VA 23704  
Hours: 9:00 – 5:00  
Contact: Joe Rieger  
(757) 399-7487

Portsmouth Public Library – Cradock Branch  
28 Prospect Parkway  
Portsmouth, VA 23702  
Hours: Monday – Thursday 10:00 – 7:00 PM  
Friday – Saturday 10:00 – 3:00 PM  
Contact: Marna Martin, Branch Manager  
(757) 393 - 8759

Following the forty-five (45) calendar day public comment period, the EPA will prepare a final decision which will address all written comments and any substantive comments presented verbally at a public meeting. This final decision will be incorporated into the Administrative Record. If the comments are such that significant changes are made to the Corrective Action Complete with Controls decision for this facility, EPA will seek public comments on the revised proposal.



## **APPENDIX A**

### References:

1. Final RCRA Site Visit Report (including appendices) for the Former Royster Company Facility, Prepared for USEPA, and VADEQ, Prepared by Tetra Tech EC, Inc., March 2007.
2. C. James Cahoon III, Bay Environmental to Joe Rieger, Elizabeth River Project. Correspondence, October 31, 2006. Attachments include:
  - Report of Analysis Package from Universal Laboratories to Bay Environmental, Inc., October 26, 2006.
  - Soil Boring Location Map, Elizabeth River Terminals Money Point Wetland Restoration, Chesapeake, Virginia. Drafted by Bay Environmental, Inc., October 11, 2006.
3. Site Plan for Wetland Restoration Money Point Elizabeth River Terminals. Prepared by Hoggard – Eure Associates, P.C., May31, 2007.