



VIRGINIA DEPARTMENT OF ENVIRONMENT QUALITY

DIVISION OF LAND PROTECTION AND REVITALIZATION

OFFICE OF REMEDIATION PROGRAMS

STATEMENT OF BASIS

**GIANT RESOURCE RECOVERY, INC.
FORMERLY SOLITE CORPORATION - VIRGINIA SOLITE DIVISION**

CASCADE, VIRGINIA

EPA ID NO. VAD046970521, VAD077942266

OCTOBER 14, 2013

Table of Contents

1.0 INTRODUCTION..... 1
 1.1. Facility Name.....1
 1.2. Proposed Decision1
 1.3. Public Participation1
2.0 FACILITY BACKGROUND..... 2
3.0 SUMMARY OF ENVIRONMENTAL HISTORY..... 3
4.0 ENVIRONMENTAL INDICATORS..... 5
5.0 FINANCIAL ASSURANCE 5
6.0 PUBLIC PARTICIPATION..... 6

1.0 INTRODUCTION

1.1 Facility Name

The Virginia Department of Environmental Quality (VDEQ) has prepared this Statement of Basis (SB) for the Giant Resource Recovery, Inc. (formerly Solite Corporation - Virginia Solite Division) facility located at Route 1, Cascade, Virginia 23836 (hereinafter referred to as the Facility or “GRR”).

The Facility is subject to the Corrective Action (CA) Program under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, and the Hazardous and Solid Waste Amendments (HSWA) of 1984, 42 U.S.C. Sections 6901 to 6992k. The Corrective Action Program is designed to ensure that certain facilities subject to RCRA have investigated and cleaned up any releases of hazardous waste and waste constituents that have occurred at their property.

Information on the Corrective Action Program can be found by navigating <http://www.epa.gov/reg3wcmd/correctiveaction.htm>.

VDEQ has prepared this SB in cooperation with the United States Environmental Protection Agency (EPA) and is providing the opportunity for public comment and review on its proposal and the associated permit modification.

1.2 Proposed Decision

VDEQ has reviewed all available Facility data and has determined that there are no unaddressed releases of hazardous waste or hazardous constituents from the Facility. Based on its review, VDEQ’s proposed decision is that no additional characterization or remediation is necessary. VDEQ’s proposed decision represents “Corrective Action Complete without Controls” as described in EPA’s “Final Guidance on Completion of Corrective Action Activities at RCRA Facilities”, (68 FR 8757, February 25, 2003). VDEQ has determined that its proposed decision for the Facility is protective of human health and the environment and that no further corrective action or controls are necessary at this time.

This SB summarizes information that can be found in greater detail in the work plans and reports reviewed by VDEQ and EPA, which can be found in the Administrative Record (AR).

1.3 Public Participation

Interested persons are invited to comment on VDEQ’s proposed decision by reviewing this SB and the documents contained in the AR. The information presented in this SB can be found in greater detail in the work plans and reports submitted by the Facility to VDEQ and EPA. To gain a more comprehensive understanding of the RCRA activities that have been conducted at the Facility, VDEQ encourages the public to review these documents, which are found in the AR. A copy of the AR is available for public review,

in paper or electronic format, from the VDEQ contact person, the address and telephone number of which is provided in Section 6.0 below.

When making a determination regarding the proposed decision, VDEQ will consider all written comments received during the comment period (see Section 6.0), and requirements of the Virginia Hazardous Waste Management Regulations and 40 CFR Part 124. Each person who has submitted comments will receive a written response from VDEQ. If VDEQ determines that new information or public comments warrant a modification to the proposed decision, VDEQ will modify the proposed decision or select other alternatives based on such new information and/or public comments. VDEQ is proposing to incorporate the determination of Corrective Action Complete without Controls in its modification of the Facility's hazardous waste management Permit.

2.0 FACILITY BACKGROUND

GRR (under the former Solite Corporation) produced lightweight aggregate used in the manufacture of lightweight masonry units, lightweight pre-cast elements, structural concrete, and other building materials at its facility located in Cascade, Virginia from 1957 to 2004. This lightweight aggregate, bearing the registered trade name Solite®, was used in numerous construction applications where its strength-to-weight, insulating, fire resistant, weather resistant, and geotechnical properties are desired.

Solite® was manufactured in four rotary kilns located on the site. Solite® was produced by a carefully controlled rotary kiln process in which a specially prepared raw material (clay, shale, slate, and other materials) was fed into kilns fired at a minimum temperature of approximately 1,800° Fahrenheit (F) necessary to expand the raw material into aggregate. Initial operations utilized coal as a primary fuel source for the kilns. The kilns and associated raw material and finished product processing facilities were located on an approximately 310 acre tract of land situated in Pittsylvania County, Virginia, approximately one mile east of State Road 859, in the Town of Cascade, Virginia. Raw materials were primarily obtained from the on-site slate quarry, the active portion of which is located in Rockingham County, North Carolina.

In the 1970s, the Solite manufacturing facility began to use alternative liquid fuels, now classified as hazardous waste derived fuel, to provide the energy for lightweight aggregate production. The liquids, primarily spent solvents and other liquid hydrocarbons were obtained from various generators including furniture, automobiles, textile, pharmaceutical, and cosmetic manufacturers. Most of the fuel was classified as hazardous because it was ignitable, which makes the material suitable for use as fuel. The GRR Facility, an approximately three-acre parcel of land wholly contiguous to the former Solite Facility, previously operated the above ground storage tanks and unloading and pumping equipment associated with hazardous waste derived fuel storage and transfer. GRR (EPA ID No. VAD077942266) formerly received, blended, and stored hazardous waste derived fuel in above-ground storage tanks subject to its own Hazardous Waste Management Facility Permit (GRR Permit). The GRR Permit became effective in 1996 and expired in 2006.

The hazardous waste derived fuel was transferred by pipeline from the tank farm to the lightweight aggregate kilns operated by the Solite Corporation. The hazardous waste derived fuel was subject to the requirements of Permit VAD046970521 and the Hazardous Waste Combustor Maximum Achievable Control Technology (MACT) rule. The Solite portion of the facility operated under Interim Status in compliance with the Boiler/Industrial Furnace (BIF) regulations prior to permitting in 2003. The facility ceased industrial operations in 2004.

Effective January 10, 2006, the Solite Corporation – Virginia Solite Division Permit, under EPA ID No. VAD046970521, was modified to incorporate the land, the facilities, and the closure and corrective action responsibilities, as applicable, of the GRR, Cascade facility and Permit under EPA ID No. VAD077942266. Therefore, this transfer of ownership and control of the GRR facility enabled the remaining permit requirements for both facilities to take place under one Permit (EPA ID No. VAD046970521). The GRR Cascade facility Hazardous Waste Management Permit expired on January 29, 2006. Effective March 15, 2007, the name Solite Corporation – Virginia Solite Division was changed to Giant Resource Recovery, Inc.

3.0 SUMMARY OF ENVIRONMENTAL HISTORY

Following is a list of RCRA Corrective Action milestones that have been completed at the Facility and are relevant to VDEQ's decision to recommend a "Corrective Action Complete Without Controls" determination:

- January 29, 1996, Hazardous Waste Management Facility Permit (EPA ID No. VAD077942266) issued to GRR.
- December 1997 *National Corrective Action Prioritization System (NCAPS) Report* issued by the VDEQ.
- November 2003, *Phase I RFI Work Plan (Rev 0)* submitted.
- December 19, 2003, Hazardous Waste Management Permit (EPA ID No. VAD046970521) issued with CA requirements to Virginia Solite.
- April 2004, *Phase I RFI Work Plan (Rev 1)* submitted.
- May 2006, *Phase I RFI Work Plan (Rev 2)* submitted.
- July 26, 2006, Solite Corporation received the VDEQ's approval of the "clean closure" certification for soil and the Closure Report for the final closure of the tank farm and Kilns 1, 2, 3, and 4.
- September 2008, *Phase I RFI Work Plan (Rev 3)* and *Phase II RFI Work Plan (Rev 0)* submitted.

- March 2009, *Phase II RFI Work Plan (Rev 1)* submitted.
- April 2011, *January 2011 Confirmatory Sampling Results* letter report submitted.
- April 2012, *January 2011 Confirmatory Sampling Results – Revision 1*, submitted.
- February 2013, *Limited investigation Work Plan* submitted.
- July 2013, *Limited Investigation and Summary Report* submitted
- August 2013, *Limited Investigation and Summary Report* approved by VDEQ.

RCRA Closure Activities

Both Solite and GRR initiated RCRA Closure in accordance with the requirements of the GRR Permit. Notification of intent to initiate final closure activities was completed on January 26, 2005 for the Solite facility and on March 9, 2005 for the GRR facility. Final closure activities at both facilities commenced in August 2005. Final Closure Reports for the Solite and GRR closure activities were submitted to the VDEQ on October 21, 2005 and November 22, 2005, respectively. VDEQ approved closure for the entire site (EPA I.D. Nos. VAD 046970521 and VAD 077942266) on July 26, 2006.

RCRA Facility Investigation Activities

The facility's Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) were identified in the National Corrective Action Prioritization System (NCAPS) Site Assessment Report prepared by the VDEQ in conjunction with EPA Region 3 in 1997. In a preliminary sampling effort conducted in August/September and December of 2004, the VDEQ collected 49 soil samples (including background and field duplicates) and one (1) groundwater sample. An evaluation of the VDEQ collected data by Solite was submitted to VDEQ in a letter dated August 31, 2005. Subsequently, CEMEX (an independent company) performed site wide due diligence activities at the Solite facility associated with a potential property acquisition. CEMEX contracted with an environmental consultant to perform a Phase I and Phase II environmental site assessment (ESA) of the Solite portion of the Facility. The Phase I work was performed in October and November 2005. The Phase II ESA activities were performed in December 2005 at the Facility and consisted of the collection of 17 soil and 7 groundwater samples.

The Phase I RFI Work Plan (Rev 2), submitted in May 2006, presented the available VDEQ and CEMEX data, screened SWMUs and AOCs for further investigation, and discussed recommendations. Based on the findings of the Phase I RFI Work Plan (Rev 2), the VDEQ requested, in a letter dated June 18, 2008, that further investigation be conducted to characterize the nature and extent of releases of hazardous constituents and their degradation byproducts, and that the groundwater flow direction be determined. In response to this request GRR submitted the Phase I RFI Work Plan/Report – Revision 3

and the Phase II RFI Work Plan in September 2008. A revised Phase II Work Plan was submitted in March 2009.

In June 2010 a conference call was conducted between VDEQ, GRR, and ONE Environmental Inc. (ONE) to discuss the remaining site issues and develop a path forward in the CA program. GRR and ONE subsequently conducted confirmatory soil and groundwater sampling activities in December 2010 and January 2011 which were performed in accordance with the Phase II RFI Work Plan – Revision 1 and a series of 2010 correspondences between VDEQ, ONE, and GRR. The January 2011 Confirmatory Sampling Results – Revision 1 report, dated April 13, 2012, provided site investigation activities and laboratory results, updated screening of soil and groundwater data, and recommendations.

Limited Soil Removal Activities and Risk Assessment

A meeting between VDEQ, GRR, and ONE was held on January 23, 2013 to discuss the VDEQ's comments on the April 2012 facility report. Available soil analytical data showed arsenic and dioxins/furans exceeding residential screening criteria and/or background in the bag house area, and benzo(a)pyrene exceeding residential screening criteria in both the tank farm and fuel oil areas. A Limited Investigation Work Plan was submitted, approved by VDEQ, and subsequently implemented in March 2013 which included removal of arsenic contaminated soil around the perimeter of the concrete pad where the former bag house was located. A Limited Investigation and Summary Report was submitted in July 2013 presenting a detailed description of the soil excavation work, confirmatory sampling activities, and analytical results. The report also included a facility risk assessment for remaining contaminants in soils associated with the bag house, fuel oil, and tank farm areas. The Report concluded that soil and groundwater quality do not pose a threat to human health or the environment, and meet the standards under a residential scenario. The risk assessment results were verified by VDEQ and the conclusions in the report were approved by the VDEQ in a letter dated August 2013. All investigations required under the CA program have been completed at the facility.

4.0 ENVIRONMENTAL INDICATORS

Under the Government Performance and Results Act (“GPRA”), EPA has set national goals to address RCRA corrective action facilities. Under GPRA, EPA evaluates two key environmental clean-up indicators for each facility: (1) Current Human Exposures Under Control and (2) Migration of Contaminated Groundwater Under Control. The Facility met these indicators on September 14, 2010 and May 9, 2012, respectively.

5.0 FINANCIAL ASSURANCE

Since no further investigations or corrective actions are anticipated based on the available information, financial assurance for corrective action is not required for the Facility.

6.0 PUBLIC PARTICIPATION

Interested persons are invited to comment on VDEQ's proposed decision. The public comment period will last sixty (60) calendar days from the date the notice is published in a local newspaper. Comments may be submitted by mail, e-mail, or phone to Mr. Ryan J. Kelly at the address listed below.

A public meeting will be held fifteen (15) calendar days from the date the notice is published in a local newspaper. The Administrative Record contains all the information considered by VDEQ for its proposed remedy for the Facility. To receive a copy of the Administrative Record, contact Mr. Ryan J. Kelly at the address below:

Virginia Department of Environmental Quality
629 East Main Street
P.O. Box 1105
Richmond, VA 23218
Contact: Mr. Ryan J. Kelly
Phone: (804) 698 - 4045
Email: ryan.kelly@deq.virginia.gov