VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

STATEMENT OF BASIS

Intermet Archer Creek Foundry
1132 Mount Athos Road

Lynchburg, Virginia

EPA ID No. VAD000820506

August 2016

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I. INTRODUCTION

The Virginia Department of Environmental Quality (VDEQ) has prepared this Statement of Basis (SB) for the Virginia Casting Industries (formerly Intermet) Archer Creek Foundry (ACF) located at 1132 Mt. Athos Road, Lynchburg, Virginia 24504 (hereinafter referred to as the Facility) to solicit public comment on its proposed final remedy. VDEQ's proposed decision requires the Facility to maintain certain property mechanisms known as Institutional Controls (ICs) and Engineering Controls (ECs). The proposed controls are discussed in Section V below. This SB highlights key information relied upon by VDEQ in selecting its proposed remedy for the site.

The Facility is subject to the Corrective Action 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.

The Administrative Record (AR) for the Facility contains all documents, including data and quality assurance information, on which DEQ's proposed decision is based. See Section VIII, Public Participation, for information on how you may review the AR.

II. FACILITY BACKGROUND

The Archer Creek property is located at 1132 Mt. Athos Road, Campbell County, near Lynchburg, Virginia. The approximately 193 acre property was formerly owned and operated by Intermet Corporation. A large portion of the 193 acres is comprised of undeveloped wooded land. ACF operated a large manufacturing plant at the property. The plant was comprised of a casting foundry (formerly referred to as the Small Castings Foundry), warehouse, and associated asphalt parking lot, rail spurs, roadways, and landscaped areas. Several small out buildings were also used at the ACF facility. The majority of the manufacturing plant was constructed in 1972, with several additions added and renovations performed over the years.

The ACF facility manufactured metal parts for automobiles, heavy trucks, small internal combustion engines, computers, industrial tools, and household appliances. Manufacturing at the facility began in 1973. Manufacturing activities include mainly melting and casting of metal parts, with some limited machining and painting. The property was owned and operated as a foundry by Lynchburg Foundry, LLC (f/k/a Lynchburg Foundry Company), an entity owned by Intermet Corporation, from approximately 1973 to December, 2009 when operations ceased. The property was sold to Virginia Casting Industries, LLC in May, 2010. That company never operated the foundry. The foundry was demolished beginning in September, 2010, with demolition complete by the end of May, 2011. When the facility was owned and operated by Lynchburg Foundry Company it was referred to as the Archer Creek Plant.

Numerous hazardous chemicals, non-hazardous chemicals, and petroleum products were historically used during the manufacturing process. The raw chemicals and petroleum products were stored in small aboveground storage tanks (ASTs), 55-gallon drums, and carboys. The hazardous and non-hazardous wastes generated at the facility were stored in ASTs, 55-gallon drums, carboys, and small containers pending disposal/treatment.

Wastes stored at the facility were generated during research and development, product quality assurance testing, and product manufacturing.

Solid non-hazardous wastes generated at the facility included commercial wastes (trash, cardboard, pallets, drums, bags, etc.), foundry production wastes (used sand, used/broken cores, carbide slag, cupola slag, used refractory, baghouse dust, used air pollution bags or filters, used grinding wheels), and waste fluids (oil, metal cleaner, rust preventive testing fluids, spent scrubber liquid, etc.). Commercial waste was disposed off-site through contracted trash hauling services to either Campbell County landfill or City of Lynchburg landfill. Foundry production wastes were formerly disposed at the on-site landfills or off-site Falwell landfill (an industrial captive landfill used only by the Lynchburg Foundry Lower Basin Plant and Archer Creek Plant) until the landfills were full. After the landfills were full, the foundry production wastes were disposed in commercial and local landfills (Amelia, Old Dominion, Fluvana County, Campbell County, and City of Lynchburg). A review of the disposal records by ACF indicates that off-site disposal began in February 2002, with some on-site disposal continuing until October 2002. Disposal at the Falwell Landfill ceased in October 2002.

A summary of the SWMUs identified in a June 1989 RCRA Facility Assessment and closure activities are provided in the table below.

Unit	Description	COCs or waste	Closure Status
(1) SWMU 1 – Baghouse Dust Treatment Area	used from 1983 until April 1991 to blend baghouse dust into a non-hazardous waste	lead and cadmium	VDEQ Closure in September 1998. Deed restriction.

Unit	Description	COCs or waste	Closure Status
(2) SWMU 2 – Calcium carbide treatment area	From 1983 until April 1991 the area was used to treat waste carbide slag into a non-hazardous waste	carbide slag was considered non-hazardous waste; however, the slag contained arsenic and selenium at elevated concentrations	VDEQ Closure in September 1998. Deed restriction.
(3) SWMU 3 – Closed Landfill Permit # 456	Approximately 15 acres and consisted of four cells - A, B, C, and D	spent casting sand, calcium carbide slag, baghouse dust sand fines, waste foundry sand, iron dust from casting finishing operations, and waste refractory brick and mortar	Phase II groundwater monitoring since May 1996. No adverse impact to groundwater identified. VDEQ assumed responsibility for groundwater monitoring.
(4) SWMU 4 - Old waste piles within Landfill Cells C and D	Waste stockpiles existed from 1973 until 1983	Foundry waste materials	Excavated and transported to the northwest landfill area (designated SMWU-5)
(5) SWMU 5 – Northwest Landfill Area, Permit # 347	Approximately 3.6 acres and closed. Disposal began in 1973 and ceased in 1985.	Foundry waste materials	In 1985 ACF closed the landfill by capping, grading, and re-vegetating.
(6) SWMU 6 – Sedimentation Area for the Northwest Landfill Area	Used during operation of the northwest landfill. The sedimentation area was comprised of a natural and manmade depression that diverted surface runoff from the landfill into a rip-rap filled sedimentation area.		Sediments collected in the area were removed on an as needed basis and disposed in the active landfill.
(7) SWMU 7 – Drainage and sedimentation for baghouse dust treatment area	Formerly received runoff from the baghouse dust treatment area. Formerly permitted outfall.		All water from the sedimentation area is currently diverted to the wastewater treatment ponds

Unit	Description	COCs or waste	Closure Status
(8) SWMU 8 – Wastewater Treatment System	Two activated sludge treatment plants, two grit removal tanks, two aerated lagoons, and a stabilization pond	Sanitary wastewater, cooling water, slag quenching wastewater, wet dust collection wastewater, and stormwater runoff	Sediments removed from the lagoons were formerly disposed in the ACF facility landfills; No disposal has been required since the on-site landfill ceased receiving wastes. ACF maintained a NPDES permit for the discharge.
(9) SWMU 9 – Water Treatment Filter Backwash Ponds	Water pumped from the James River was filtered to remove solids. Two ponds were used to store filter backwash water and solids. Water from the ponds discharges directly into the James River via a VPDES permitted outfall		Removed sediments were disposed in the on-site landfill.
(10) SWMU 10 – Underground Storage Tanks	A 15,000-gallon No. 2 fuel oil, a 1,000-gallon kerosene, 5,000-gallon gasoline, and 500-gallon used oil tank were in use at the facility at one time.		The No. 2 fuel oil tank was removed in November 1988, the kerosene and gasoline tanks were removed in December 1988, and the used oil tank in June 1988.
(11) SWMU 11 through SWMU 25	March 4, 1994 correspondence from Kilpatrick & Cody to Goldblum, USEPA re. Request for information.	Various	The letter recognized 14 SWMUs identified during a 1990 EPA site visit plus 1 additional. Each unit was characterized and were operating according to permits or otherwise. No releases were identified and no remediation was recommended.

Unit	Description	COCs or waste	Closure Status
(12) SWMU 26 through 44 including AOC 1 and AOC 2	February 23, 2007 Site Visit Report; ICOR and USACE for USEPA and VADEQ.	Various	SWMUs and AOCs identified in the September 21, 2005 site visit by USEPA and VADEQ. Disposition of each as characterized in the 2007 report.

The former foundry is currently vacant, consisting of large concrete slabs delineating the locations of former structures, a few derelict structures, and elements of the wastewater treatment system. The northwest landfill is largely overgrown and inaccessible as is much of the site. The closed landfill (SWMU 3) rises above the site abutting the property boundary to the northwest and is enclosed by a security fence.

III. SUMMARY OF ENVIRONMENTAL HISTORY

June 28, 1989, PRC Environmental Management Inc. completed the Final RCRA Facility Assessment (FA) for the ACF. In summary the FA concluded that the ACF facility likely released baghouse dust to the atmosphere during periods when air pollution control equipment has malfunctioned. Furthermore the FA identified five possible sources of releases of hazardous waste to surface water including spills, deposition of dust into the James River, wastewater discharges, discharges from sedimentation areas, and groundwater discharge. The FA concluded that one or more of the SWMUs present at the ACF facility may be affecting groundwater quality at the facility based on a review of the limited groundwater sampling data for the facility. Finally the FA concluded that the ACF facility may have released hazardous constituents to the soil through dust emissions during air treatment control malfunctions and leachate discharging to soil underlying SWMUs.

The following describes the documented releases from USTs located at ACF:

A release occurred in January 1988, from the 20,000-gallon AST formerly located south of the Small Castings Foundry. A January 19, 1988 letter from the facility to the VDEQ concerning the January 11, 1988 release of fuel oil estimated the release to be less than 100 gallons. The Commonwealth of Virginia State Water Control Board (SWCB) and National Response Center (NRC) were notified of the release. A February 13, 1989 letter from the facility to the VDEQ updated the status of the cleanup activities.

A SWCB memorandum dated January 29, 1991 stated that a release of 4,000 gallons of fuel oil occurred as a result of human error, with the released fuel entering a tributary of the James River via a storm sewer. An estimated 3,000 to 3,500 gallons of fuel oil

reportedly reached State waters and an estimated 3,200 gallons of the released fuel were recovered. A February 28, 1991 letter from the facility to the SWCB detailed the release incident and cleanup activities implemented following the release. The letter stated oil was pumped from the ground into 55-gallon drums, absorbent pillows were deployed in the receiving stream, gravel dikes were built, soil affected by the release was removed, banks of the stream were spray washed, oil was recovered from wetlands, and improvements to the pump station were made to minimize the potential for future releases. A March 4, 1994 letter prepared by Kilpatrick & Cody details a release of fuel oil at the ACF facility in April 1991. The release was reportedly the result of "human error" during dispensing of fuel from a 20,000-gallon AST. The released fuel entered a storm drain and eventually discharged into an unnamed tributary of Archer Creek. The VDEQ was notified and surface water and soil cleanup was conducted with VDEQ oversight.

On December 16, 2005 an estimated 750 to 800 gallons of fuel oil occurred from a supply line leading from the 20,000-galllon tank to a non-active roof mounted space heater. Notifications were provided to the VDEQ and the National Response Agency on December 17, 2006. Corrective actions were implemented on December 16, 2006 and the VDEQ determined no further site investigation was necessary upon completion of the cleanup activities.

As written previously the ACF facility no longer exists. The site is vacant and evidence of previous operations has been removed excepting the concrete slab of the former foundry building, the remaining out-buildings, the closed industrial landfill, and the unused waste-water treatment system. There is no risk from ongoing operations. However, historical soil and groundwater data suggests that both may contain contamination above Industrial Risk-Based Screening Levels and there is no current data that supersedes the historical data.

IV. CORRECTIVE ACTION OBJECTIVES

4.1 Soil

VDEQ's Corrective Action Objective for Facility soils is to control exposure to any hazardous waste constituents remaining in soils by requiring the compliance with and maintenance of engineering and institutional controls at the Facility further described in Section V. The control will limit the Facility to non-residential uses and require subsequent owners to comply with this restriction.

4.2 Groundwater

VDEQ's Corrective Action Objectives for groundwater at the Facility is to control exposure to any hazardous constituents in the groundwater by requiring the compliance with and

maintenance of a groundwater use restriction at the facility further described in Section V. This will and remain in effect until data is presented demonstrating that groundwater poses no risk to exposure.

V. PROPOSED REMEDY

VDEQ's proposed decision represents "Corrective Action Complete with Controls" as described in EPA's "Final Guidance on Completion of Corrective Action Activities at RCRA Facilities", (68 FR 8757, February 25, 2003). A Corrective Action Complete with Controls determination indicates that protection of human health and the environment has been achieved, and will continue as long as the necessary operation and maintenance actions are performed, and the institutional controls are maintained and complied with. Institutional controls are required to restrict the Facility to non-residential uses and to prohibit the potable use of groundwater beneath the facility.

VDEQ anticipates that the land use restrictions will be implemented by an environmental covenant pursuant to the Virginia Uniform Environmental Covenants Act (UECA), Title 10.1, Chapter 12.2, Sections 10.1- 1238-10.1-1250 of the Code of Virginia (Environmental Covenant).

VDEQ's proposed remedy for the Facility consists of the following components:

5.1 Compliance with and Maintenance of Institutional and Engineering Controls (ICs and ECs)

Because contamination may remain in the subsurface soils and groundwater at the Facility, VDEQ's proposed final remedy includes land use restrictions to minimize the potential for human exposure to soil that contains contaminants above levels of concern. The land use restrictions will be implemented through institutional and engineering controls (ICs and ECs). ICs are non-engineered instruments such as administrative and/or legal controls that minimize the potential for human exposure to contamination by limiting land or resource use and inform subsequent purchasers of the environmental conditions at the Facility and of VDEQ's final remedy for the Facility. ECs encompass a variety of engineered and constructed physical barriers (e.g., soil capping, subsurface venting systems, mitigation barriers, fences) to contain and/or prevent exposure to potential contamination on a property.

VDEQ is proposing the following institutional and engineering controls be implemented and maintained at the Facility:

- All earth moving activities including excavation, drilling and construction activities that would result in direct exposure to soil or disturbance of the soil on those portions of the Facility associated with the closed landfills and associated sedimentation basins shall be prohibited without VDEQ approval of a Materials Management Plan.

- The Facility property shall not be used for any purposes other than industrial unless it is demonstrated to VDEQ that such use will not pose a threat to human health or the environment and VDEQ provides prior written approval for such use.

- Groundwater shall not be used for potable purposes unless it is demonstrated to VDEQ that such use does not pose an unacceptable risk to human health and VDEQ provides prior written approval for such use.

- To minimize potential trespasser exposure to site-related inorganic soil contaminants the existing fence must be maintained.

In addition, compliance with the ICs and ECS shall be reported and maintained in accordance with the forthcoming environmental covenant. VDEQ also proposes to require VCI to provide a coordinate survey as well as a metes and bounds survey, of the ACF boundary. Mapping the extent of the land use restrictions will allow for presentation in a publicly accessible mapping program such as Google Earth or Google Maps.

5.2 Implementation

VDEQ is proposing that the Facility pursue an environmental covenant pursuant to the Virginia Uniform Environmental Covenants Act (UECA), Title 10.1, Chapter 12.2, Sections 10.1- 1238 through 10.1-1250 of the Code of Virginia.

VI. EVALUATION OF VDEQ'S PROPOSED DECISION

6.1 Threshold Criteria

This section provides a description of the criteria VDEQ used to evaluate the proposed remedy consistent with EPA guidance. VDEQ evaluated three remedy threshold criteria as general goals.

6.1.1 Protect Human Health and the Environment

The proposed remedy will restrict the use of the entire Facility property to industrial use. The proposed industrial use restriction for the entire Facility is due to the past industrial use of the property, land use controls will be imposed to prevent exposure to potential residual contamination.

6.1.2 Achieve Media Cleanup Objectives

The proposed remedy will achieve the media cleanup objectives. Land use restrictions, as required by the proposed remedy, will control exposure to any hazardous constituents remaining in subsurface soils and groundwater.

6.1.3 Remediating the Source of Releases

There are no known releases. Previously releases were identified and managed under VDEQ's UST program.

6.2 Balancing/Evaluation Criteria

6.2.1 Long-Term Effectiveness

The proposed remedy will provide long-term protection of human health and the environment. In addition, land and groundwater use restrictions prohibiting residential land use and potable use of groundwater beneath the facility will be maintained until potential risks are demonstrated to be otherwise.

6.2.2 Reduction of Toxicity, Mobility, or Volume of the Hazardous Constituents

The reduction of toxicity, mobility and volume of hazardous constituents at the Facility has already been achieved by the excavation of contaminated soils associated with known petroleum releases.

6.2.3 Short-Term Effectiveness

The Facility is vacant and there is no current or ongoing risk therefore the short-term effectiveness is high.

6.2.4 Implementability

VDEQ's proposed remedy is readily implementable. With respect to the implementation of the ICs and as part of the proposed remedy, the Facility will pursue an environmental covenant, pursuant to the Virginia Uniform Environmental Covenants Act, Title 10.1, Chapter 12.2, Sections 10.1-1238-10.1-1250 of the Code of Virginia. Therefore, VDEQ does not anticipate any regulatory constraints in implementing its proposed remedy.

6.2.5 Cost

VDEQ's proposed remedy is cost effective since the only remaining CA activities include the recordation of the UECA covenant and ongoing inspection and maintenance of engineering and institutional controls.

6.2.6 Community Acceptance

VDEQ will evaluate Community acceptance of the proposed remedy during the public comment period, which will last thirty (30) days. VDEQ's final decision and comments accepted during the public comment period will be addressed in the Final Decision and Response to Comments (FDRTC)

6.2.7 Federal Agency Acceptance

VDEQ and EPA coordinated on the proposed remedy. If EPA provides comments during the public comment period, VDEQ will address them in the FDRTC.

VII. PUBLIC PARTICIPATION

Before VDEQ makes a final decision of its proposal for the Facility, the public may participate in the remedy selection process by reviewing this SB and documents contained in the AR for the Facility. The AR contains all information considered by VDEQ in reaching this proposed decision. The Administrative Record, including the SB, is available for review during normal business hours at:

Virginia Department of Environmental Quality
629 East Main Street
Richmond, Virginia 23218
Contact: Brett Fisher
Phone 804-698-4219
Fax 804-698-4234
Email brett.fisher@deq.virginia.gov

Interested parties are encouraged to review the AR and comment on VDEQ's proposed remedy. The public comment period will last thirty (30) calendar days from the date that the notice is published in a local newspaper. You may submit comments by mail, fax, or email to Brett Fisher, VDEQ Corrective Action Project Manager. VDEQ will hold a public meeting to discuss the proposed remedy upon request which should also be made to Brett Fisher whose contact information is listed above.

VDEQ will respond to all relevant comments received during the comment period. If VDEQ determines that new information warrants a modification to the proposed remedy, VDEQ will modify the proposed remedy or select other alternatives based on such new information changes in a document entitled Final Record of Decision and Response to Comments (FDRTC). All persons who comment on this SB will receive notice of the Final FDRTC.

Date: 9/19/16

Chris Evans, Director
Office of Remediation Programs

Intermet Archer Creek Foundry
VAD 00820506
Administrative Record
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1. Final RCRA Site Visit Report, Intermet Archer Creek Foundry, February 23, 2007: this report contains a list of references obtained by the authors that includes the 1989 Final RCRA Facility Assessment and the 1994 Kilpatrick and Cody letter to EPA that were the basis for the proposed remedy decision.