UNITED STATES

ENVIRONMENTAL PROTECTION AGENCY

REGION 3

STATEMENT OF BASIS

J.G. WILSON FACILITY

CHESAPEAKE, VIRGINIA

EPA ID NO. VAD 000 000 125

JUNE 18, 2010

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I. INTRODUCTION

A. Facility Name

The United States Environmental Protection Agency ("EPA") has prepared this Statement of Basis ("SB") for the J.G. Wilson Facility, Chesapeake, Virginia facility located at 120 Jefferson Street, Chesapeake, VA 23324 (hereinafter referred to as the "Facility").

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. §§ 6901 et seq. The Corrective Action program is designed to ensure that certain facilities subject to RCRA have investigated and addressed any releases of hazardous waste and hazardous 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.

EPA has prepared this SB in cooperation with the Virginia Department of Environmental Quality ("VDEQ"). EPA has reviewed all available Facility data and based on its review, in this SB EPA is proposing its final remedy for the Facility and providing the opportunity for public comment and review on its proposal.

B. Proposed Decision

This SB explains EPA's proposed decision that no further actions to remediate soil, groundwater or air contamination are necessary given current land use. EPA's proposed remedy is to require the Facility to maintain a groundwater monitoring program and to develop and maintain property restrictions known as Institutional Controls ("ICs"). The proposed ICs are detailed in Section V, below. These controls will provide assurance that the land use, as anticipated when the remedy was proposed, does not change without additional investigation or work and notification to the EPA. EPA's proposed decision represents "Corrective Action Complete with Controls" as described in EPA Guidance found in the Federal Register / Vol. 68, No. 37 / Tuesday, February 25, 2003 / Notices [FRL – 7454-7] pages 8757 to 8764.

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

C. Importance of Public Input

Before EPA makes a final decision on 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 the complete set of reports that document Facility conditions, including a map of the Facility, in support of EPA's proposed decision. EPA encourages anyone interested to review the AR. The AR is

available from the EPA Region III office, the address of which is provided in Section VIII, below.

EPA will address all significant comments received during the public comment period. If EPA determines that new information or public comments warrant a modification to the proposed decision, EPA will modify the proposed decision or select other alternatives based on such new information and/or public comments. EPA will approve its final decision in a document entitled the Final Decision and Response to Comments ("FDRTC").

II. FACILITY BACKGROUND

The J.G. Wilson property is located at 120 Jefferson Street, Chesapeake, Virginia. The J.G. Wilson property is bound to the north by a former Chesapeake Products fertilizer operation, to the west by the estuarine Elizabeth River Southern Branch, to the south by Poindexter Street and City-owned property that houses the Jordan Bridge tollgate office, and to the east by a Norfolk-Portsmouth Beltline Railroad maintenance facility and Standard Engine and Transmission. The former J.G. Wilson office building, which was recently demolished and removed from the Facility, was located at the northwest corner of Truxton Street and Jefferson Street.

The J.G. Wilson property was developed around 1905 as a manufacturing facility for metal and wood overhead doors. The Facility's physical plant and operations included steel and iron working, galvanizing, woodworking, a paint shop, dry kilns (with coal storage), storage buildings, and a 30,000-gallon water tower. The J.G. Wilson Company ("J.G. Wilson") filed for bankruptcy on March 26, 1990, and the property was acquired by Environmental Solutions, Inc. ("ESI"). ESI decommissioned the Facility and demolished the last of the manufacturing buildings in the mid-1990's. Truxton Development Company ("Truxton") acquired the property on December 3, 2004.

Although the Facility is currently vacant it has been identified as a key to Chesapeake's South Norfolk Borough redevelopment. The J.G. Wilson property is the proposed future location of a multi-million dollar revitalization project which would include condominiums, boutiques, and restaurants along the Elizabeth River. There are no active solid waste management units ("SWMUs") present on the Facility. The Facility utilizes the public water supply and sanitary sewer systems which are operated and maintained by the City of Chesapeake.

III. SUMMARY OF ENVIRONMENTAL HISTORY

In 1989, the VDEQ issued a notice of non-compliance to J.G. Wilson regarding the storage of hazardous waste in its plating tanks and baths. The hazardous waste was described as F007 (spent cyanide solution from electroplating operations) and F008 (plating bath residues from the bottom of plating baths for which cyanides are used in the process).

From January 1995 to March 1996, ESI submitted several plans and revisions to VDEQ for the closure of the plating tank area, the paint shop and a RCRA container storage area. ESI also proposed to remove all wastes and containers, as well as affected surfaces and soil. A Clean Closure Plan prepared by ESI, dated February 1995, included pre-closure metals data for samples collected from the tanks, wall surfaces, and a dirt floor. In July 1995, VDEQ issued an Enforcement Order ("Order") to ESI which required ESI to perform the closure activities at the Facility. In a letter dated May 16, 1996, VDEQ acknowledged that clean closure had been completed in accordance with the Order and the closure plan and accepted final closure of the Facility. In a subsequent letter dated July 2, 1996, VDEQ granted ESI's request to terminate the Order since it had completed clean closure at the Facility. The Facility continued to be subject to RCRA Corrective Action due to its past status as an unpermitted Treatment, Storage or Disposal ("TSD") facility.

On May 2004, ESI conducted a Phase II Environmental Site Assessment ("Assessment") at the Facility for the purpose of a possible sale of the Facility. Pursuant to the Assessment, soil and groundwater samples were collected from 8 locations on the J.G. Wilson Facility. Soil boring locations were selected based on the former areas of operation in an attempt to quantify potential "worst-case" site conditions. Soil and groundwater samples were obtained for analysis for EPA Priority Pollutants, including metals (dissolved in groundwater), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs) and pesticides. Soil samples results were compared to US EPA Region III Risk Based Concentrations ("RBCs"). All groundwater sample results were compared to maximum contaminant levels ("MCLs") promulgated by EPA at 40 CFR Part 141 pursuant to the Safe Drinking Water Act, 42 U.S.C §§ 300f, et seq. or Tap Water RBCs.

Measured chemical concentrations found at the Facility were predominantly metals and trace SVOCs, with no detected VOCs (except for trace levels of methylene chloride, a common laboratory contaminant) or PCBs. Only two organic (petroleum) compounds, acenaphthene and bis (2-ethylhexyl) phthalate, were detected in groundwater, and they were detected only at one location.

In a Letter of Commitment to EPA dated August 25, 2004, Truxton agreed to conduct a RCRA Facility Investigation ("RFI") of the Facility under Region 3's Facility Lead Corrective Action Program. The RFI Work Plan was developed by Truxton in October 2004 and finalized in June 2005. During 2004 and 2005, several inorganic chemicals, primarily lead and arsenic, were detected in soil at concentrations that warranted additional evaluation. Multiple depth discrete soil samples were collected from more than 60 locations at the Facility. The variable distribution of the chemicals in the near surface, predominantly metals, as evidenced by the extensive data set, suggested that a release from a solid waste management unit did not cause these elevated concentrations. However, two areas were identified where lead and arsenic concentrations appeared to be locally elevated. These areas comprise approximately 59,000 square feet (north area) and 9,000 square feet (south area). These areas yielded values that were considered excessive for future mixed use, including residential occupancy.

From 2005 through 2009, a Facility Lead Corrective Action Groundwater Monitoring Program was developed for the Facility based on the results of sampling performed during the RFI. The objective of this program was to have Truxton evaluate the nature and extent of releases at the Facility into the uppermost water-bearing unit.

Groundwater monitoring has revealed that the constituents of concern at the Facility are lead and arsenic. During 2005 groundwater monitoring activities, there were no organic compounds detected in groundwater samples. Total (unfiltered) arsenic and lead samples were measured at concentrations exceeding EPA Region 3 RBCs and applicable MCLs. The maximum concentrations for arsenic and lead on the main J.G. Wilson parcel were detected in samples collected near the northern property line near the Chesapeake Products facility. Arsenic and ammonia also were detected on the northern portions of the Facility.

To update the 2005 groundwater monitoring data, samples were collected for three consecutive quarters in 2008. Sampling results revealed the presence of Nitrate concentrations in groundwater beneath the Facility which exceeded the EPA Region 3 RBCs along the northern boundary (upgradient) with the Chesapeake Products property. Arsenic and lead concentrations in excess of the EPA Region 3 RBCs were also found at the northern and western portions of the Facility, with the highest concentrations detected along the boundary with the Chesapeake Products facility. The sampling results revealed low concentrations of nitrate, arsenic and lead, in groundwater across the remainder of the Facility. No off-site groundwater contamination has been identified.

Truxton performed interim remedial measures pursuant to the Facility Lead Agreement at the plating shop area and at the northern portion of the Facility where lead and arsenic concentrations in soil appeared to be locally elevated. Truxton performed the complete removal of impacted soil down to the existing seasonal low groundwater table. During the period from October 23, 2007 through November 3, 2007, Truxton excavated 10,708.44 tons of contaminated soil and transported it under manifest to the Southeastern Public Service Authority's (SPSA's) Suffolk landfill for use as alternate daily cover.

The locations specified in the EPA-approved Corrective Measures Work Plan (CMWP), dated September 20, 2007, which included the two areas above and other smaller isolated areas in the Facility, were excavated as proposed. VDEQ approved the completion of the soil removal activities in a letter dated February 27, 2008, pursuant the FLA.

The RFI and corrective measures proposed and completed by the Facility have been described in the CMWP, dated September 20, 2007 and the Phase II Work Plan (Phase II WP), dated May 2009. EPA Region III and VDEQ completed a review of both Work Plans. VDEQ issued an approval letter on the CMWP on September 27, 2007 and on the Phase II WP on August 27, 2009.

With the completion of the interim remedial measures, all known soil source areas that exceeded residential screening levels for lead and/or arsenic were successfully excavated down to the seasonal low groundwater table and removed from the Facility. VDEQ and EPA determined that this represented a full characterization of the Facility

with respect to nature and extent of contamination for soil that no additional soil investigations or corrective measures are required for the Facility. Based on the available information, there are currently no unacceptable risks to human health and the environment via the soil or vapor intrusion pathways.

With the completion of the interim remedial measures and the Groundwater Monitoring program, VDEQ and EPA have determined that Truxton has completed a full characterization of the Facility with respect to the nature and extent of contamination for groundwater. Considering the combined impact of implemented interim measures for soil (i.e. source removal) and historical groundwater data (i.e. concentration downward trend over time) the low migration potential of the constituents of concern (lead and arsenic) VDEQ and EPA determined that no additional groundwater investigations or corrective measures are required for the Facility.

While the current conditions in the groundwater are above cleanup standards for lead and arsenic, the use of groundwater as source of potable water in the Facility is prohibited by the City of Chesapeake ordinance thereby eliminating the groundwater pathway and ensuring that there are no unacceptable risks to human health and the environment. In addition to Institutional Controls, EPA will require Truxton to implement a groundwater monitoring plan to monitor progress towards attaining the groundwater cleanup standards.

Thus the proposed final remedy for the Facility consists of institutional controls and the continued implementation of a groundwater monitoring program until groundwater clean-up standards are met. The goal of the proposed remedy is to ensure the overall protection of human health and the environment.

IV. EVALUATION OF PROPOSED DECISION

This section provides a description of the criteria EPA uses to evaluate proposed remedies under the Corrective Action Program. The criteria are applied in two phases. In the first phase, EPA evaluates three criteria, known as Threshold Criteria. In the second phase, EPA may consider seven balancing criteria to select among alternative solutions, if more than one alternative is proposed. The Facility has demonstrated that the current conditions meet the threshold criteria established by EPA. Because EPA is not selecting among several alternatives, a complete evaluation of the balancing criteria is not necessary.

The following is a summary of EPA's evaluation of the Threshold Criteria:

A. Threshold Criteria

(1) Overall Protection of Human Health and the Environment

The proposed remedy protects human health and the environment from exposure to contaminants. EPA's proposed remedy meets this standard for current and anticipated land use.

In light of the previous investigation and remediation activities conducted in the impacted areas of the Facility, and given that no corrective action for the remainder of the Facility is being required, further investigation or corrective actions are not necessary to protect human health and the environment.

The property is currently vacant with the exception of building slabs and there are no active solid waste management units (SWMUs) present. Although future land use includes residential uses, it is noteworthy that potential human exposure scenarios are significantly reduced due to the following factors:

(1) the removal of impacted soil,
(2) the entire Facility will be raised in elevation by two to four feet using clean, imported fill, due to flood control requirements,
(3) nearly all of the Facility will have impervious cover, either building footprints (office, condominiums, parking garage) or roads,
(4) the Facility's common areas will be controlled by a Master Property Owners Association,
(5) groundwater exposure pathways will not exist due to the absence of organic compounds and the City of Chesapeake's ordinance prohibiting the use of groundwater for potable purposes,
(6) installation of trench liners in the location of all on-site groundwater submerged public water and sanitary sewer utilities, and
(7) storm water retention will utilize impervious materials to create a boundary between such retention and the uppermost un-confined ground water aquifer.

Truxton utilizes the public water supply and sanitary sewer systems, which are operated and maintained by the City of Chesapeake.

(2) Attainment of Media Cleanup Standards

For soil, the cleanup standard has been attained by removing all soil contaminated above residential screening levels down to the seasonal low groundwater table. Additionally, the soil screening level for transfer to groundwater based on the arsenic MCL of 10 ug/l is comparable to the residential screening level (EPA April 2009 Oak Ridge National Laboratory Summary Table). No additional transfer to groundwater that would result in MCL exceedances for arsenic and lead is anticipated.

For groundwater, lead and arsenic concentrations are still slightly above their respective cleanup standard. For arsenic, the cleanup standard is a Maximum Contaminant Level of 10 ug/l. For lead, the cleanup standard is a target level of 15 ug/l. However, there is no current use of on-site groundwater as a drinking water source, and continuing monitoring as well as institutional controls will remain in place until the groundwater cleanup standards, namely the respective MCLs for arsenic and lead have been met. Groundwater monitoring data will be evaluated periodically to ensure that contaminant concentrations continue to decline.

No further investigations or corrective actions are necessary to protect human health and the environment given the current and reasonably anticipated land and water resource uses.

(3) Source Removal

In all remedy decisions, EPA seeks to eliminate or reduce further releases of hazardous waste and hazardous constituents that may pose a threat to human health and the environment. Truxton has excavated all contaminated soil down to the groundwater table. No source areas remain at the Facility.

B. Balancing Criteria

(1) Long-Term Reliability and Effectiveness

Only ICs and periodic groundwater monitoring are required. The long-term reliability and effectiveness will be ensured through use of a permit or order and layering of ICs.

(2) Reduction of Waste Toxicity, Mobility or Volume

All known wastes in the soils have been removed from the Facility and restrictions on groundwater usage are in place, leaving the Facility suitable for future residential and/or industrial development.

(3) Short-Term Effectiveness

ICs and the groundwater monitoring plan are already in place.

(4) Implementability

The proposed remedy is anticipated to be fully implementable with readily available methods. No regulatory hurdles are anticipated for continued implementation.

(5) Cost

The proposed remedy represents a good balance between cost and risk reduction. Truxton has already expended costs for source removal and monitoring. Ongoing monitoring and maintenance of the ICs are estimated at approximately $25,000 per year based on historic costs.

(6) Community Acceptance

Community Acceptance of the proposed remedy will be determined based on the comments received during the public comment period.

(7) State Acceptance

The VDEQ has reviewed the proposed remedy and concurs with it.

V. INSTITUTIONAL CONTROLS

ICs are generally non-engineered mechanisms such as administrative and/or legal controls that minimize the potential for human exposure to contamination and/or protect the integrity of a remedy. Under this proposed remedy, some concentrations of contaminants will remain in the groundwater at the Facility above levels appropriate for residential and domestic uses. As a result, the proposed remedy will require the Facility to implement ICs in order to restrict use of the Facility groundwater to prevent human exposure to contaminants while contaminants remain in place.

A. Existing Institutional Controls

EPA has identified the Commonwealth of Virginia State Board of Health Private Well Regulations, 12 VAC 5-630-10 et seq. ("Regulations") and its implementing statute set forth at the Code of Virginia, Title 32.1 (Health), Chapter 6 (Environmental Health Services), Va. Code §32.1. as an institutional control mechanism that will reduce potential human exposure to contaminated groundwater attributable to the Facility. Pursuant to Section 12 VAC 5-630-30, the purpose of these Regulations is to "ensure that all private wells are located, constructed and maintained in a manner which does not adversely affect ground water resources, or the public welfare, safety and health."

Accordingly, Section 12 VAC 5-630-230 through 12 VAC 5-630-270 of the Regulations prescribes the process by which construction permits for the installation of private wells are received and issued. Pursuant to the Regulations, if a private well is installed or modified without a permit, Section 12 VAC 5-630-150 sets forth an enforcement mechanism which provides for the notification of violations of the Regulations, the issuance of orders requiring cessation and correction of violations, appropriate remedial action to ensure that the violation does not recur, and any appropriate corrective action to ensure compliance with the Regulations.

B. Proposed Institutional Controls

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 ("Environmental Covenant"), will be recorded with the Clerk's Office of the Circuit Court of Chesapeake.[i] Additionally, as part of the Environmental Covenant, Truxton will be required to provide a coordinate survey as well as a metes and bounds survey of the closed surface impoundments and the Facility 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. A clerk-stamped copy of the Environmental Covenant will be sent to EPA and VDEQ within 60 days of recordation.

[i] The Virginia Uniform Environmental Covenants Act becomes effective July 1, 2010.

The Environmental Covenant will set forth the prohibition on use of groundwater from the upper aquifer below the property for any purpose except environmental monitoring and testing until such time as groundwater cleanup standards for unlimited use and unrestricted exposure have been reached. In addition to the use prohibitions, the Environmental Covenant will also require the Facility owner and any subsequent owners to submit to the EPA and VDEQ written documentation following the transfer of the property concerning changes in the use of the Facility property. This includes notice of the filing of applications for building permits for the property or proposals for any Facility work potentially affecting the groundwater use restriction identified in the Environmental Covenant.

The groundwater use prohibition will be incorporated either in full or by reference into all deeds, easements, mortgages, leases, licenses, occupancy agreements, or any other instrument of transfer, whereby an interest in and/or a right to use the property or a portion thereof is conveyed.

If the Facility owner or subsequent owners fail to meet its obligations under the enforceable mechanisms selected or if EPA, in its sole discretion, deems that additional ICs are necessary to protect human health or the environment, EPA has the authority to require and enforce additional ICs, such as the issuance of an administrative order.

VI. 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 2, 2009.

VII. FINANCIAL ASSURANCE

EPA's proposed decision of Construction Complete with Controls would require the Facility to provide financial assurance for groundwater monitoring and implementation of institutional controls.

VIII. PUBLIC PARTICIPATION

Interested persons are invited to comment on EPA's proposed decision. The public comment period will last thirty (30) calendar days from the date the notice is published in a local newspaper. Comments may be submitted by mail, fax, e-mail, or phone to Mr. Denis Zielinski at the address listed below.

A public meeting will be held upon request. Requests for a public meeting should be made to Mr. Denis Zielinski at the address listed below. A meeting will not be scheduled unless one is requested.

The Administrative Record contains all the information considered by EPA for its proposed remedy for the Facility. To receive a copy of the Administrative Record, contact Mr. Denis Zielinski at the address below:

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