

Environmental, Health and Safety

RECEIVED

October 14, 2013

Leonard E. Hotham U.S. EPA Region III 1650 Arch Street Philadelphia, PA 19103 OCT 17 '13

VDEQ - ORP

Ashland Inc. P.O. Box 2219 Columbus, OH 43216 Tel: 614-790-3333, Fax: 614-790-6080 www.ashland.com

RE: Implementation of Institutional Controls, Ashland Inc. Roanoke, VA

Dear Mr. Hotham,

Per the Final Decision and Response to Comments for the Ashland Inc. facility at 2410 Patterson Avenue Southwest in Roanoke, Virginia, attached are a Recorded Declaration of Restrictive Covenant, Legal Description and Associated Figures. I have also included a copy of the Statement of Basis. If you have any questions, please don't hesitate to contact me at (614) 790-1586 or at <u>mbdever@ashland.com</u>.

Regards,

WhallB2

Michael Dever Project Manager Ashland Inc.

Attachments

CC:

Michelle Hollis-Virginia Department of Environmental Quality, 629 East Main Street, Richmond, VA 23219



OFFICIAL RECEIPT CIRCUIT COURT FOR CITY OF ROANOKE 315 CHURCH AVENUE SW ROANOKE, VA 24016 540-853-6702

DEED RECEIPT

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GRANTEE: ASHLAND INC	EX: N PCT: 100%	
AND ADDRESS : , .		
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CLERK OF COURT: BRENDA S. HAMILTON

PAYOR'S COPY RECEIPT COPY 1 OF 2

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MAILED TO:

This instrument prepared by: Kristina Woods, Esq. Ashland Inc. 5200 Blazer Parkway Dublin, Ohio 43017

DECLARATION OF RESTRICTIVE COVENANT

This Declaration of Restrictive Covenants made as of this day of <u>Uctobee</u>) 2013, under the authority of Virginia Code Section 10.1-1230 *et seq.* and 9 VAC 20-160-110 by **Ashland Inc.**, a Kentucky corporation, owner of the fee simple title to the property hereinafter described, GRANTOR:

ALL THAT certain tract, piece or parcel of land containing a total of 1.42 acres; more or less, lying and being in the City of Roanoke, Virginia, and being more particularly described on <u>Exhibit A</u> attached hereto and made a part hereof, and depicted on that consolidation plat recorded on September 29, 1995, in Map Book 1, Page 1442, Clerk's Office of Circuit Court for the City of Roanoke, a copy of which is attached hereto as Exhibit A-1 and made a part hereof (the "Property").

RECITALS .

- A. WHEREAS, GRANTOR is the fee simple owner of the Property (see deeds recorded in Deed Book 1614, Page 437 and Deed Book 1784, page 140);
- B. WHEREAS, in consideration of certain concessions made by the Director of the Virginia Department of Environmental Quality, GRANTOR has agreed to establish certain irrevocable restrictive covenants limiting the use of certain portions of the Property in order to protect human health and the environment;

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The facility has been the site of a chemical and industrial solvent storage/distribution facility since the late 1950s. GRANTOR began its operations at the site in approximately 1966. The Roanoke facility is currently regulated by the Virginia Department of Environmental Quality (VDEQ) and the United States Environmental Protection Agency (USEPA). Conditions have been evaluated in each of the Solid Waste Management Units (SWMU's) and Areas of Concern (AOCs) identified by VDEQ and USEPA. The investigations have determined that soil contamination is present at the site, with USEPA determining that on the basis of commercial/industrial use the impacts do not pose any unacceptable risks to human health. The environmental conditions at the property are documented in the following reports, all of which are incorporated in this document by reference:

- Westinghouse Environmental Services (1988). Results of Soil Sampling and Proposal for Additional Sampling. October 1988.
- Westinghouse Environmental Services (1989). Additional Sampling for Closure of Waste Pad. Ashland Chemical Company. May 5, 1989.
- Westinghouse Environmental and Geotechnical Services, Inc (1989b). Certification of Closure. Ashland Chemical Company Roanoke, Virginia. October 1989.
- Environmental Strategies Corporation (1999). Revised report Closure Certification Report. Hazardous Waste Storage Area. Ashland Distribution Company Roanoke Virginia. May 14 1999.
- Virginia Department of Environmental Quality Technical Memo on Closure of Hazardous Waste Management Unit (HWMU), July 12, 2000.
- USEPA 2008 Final RCRA Site Visit Report Ashland Inc EPA ID No. VAD 062 373 600. 210 Patterson Ave., S.W. Roanoke, VA 24016. Report prepared by Tetra Tech. February 13, 2008.
- EHS-Support 2010 Soil Investigation Report. Ashland Distribution Company Roanoke Virginia. April 26, 2010.
- D. The reports noted in Recital C set forth the nature and extent of contamination on the Property. These reports confirm that contaminated soil exists on the Property. Residual soil impacts at the site will be managed in place with future restrictions on site use. Given the potential for impacts in other areas of the site, this declaration imposes restrictions on the entire property, as described in <u>Exhibit A</u> and depicted on <u>Exhibit A-1</u>.
 - It is the intent of the restrictions in this declaration to reduce or eliminate the risk of exposure of the contaminants to the environment and to users or occupants of the Property and to reduce or eliminate the threat of migration of the contaminants.

NOW THEREFORE, for the consideration referred to above, the receipt and legal sufficiency of which is hereby acknowledged by the undersigned, and in order to protect human health and the environment, the undersigned does hereby irrevocably, dedicate,

C.

E.

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declare and impose the following restrictive covenants to run with the land on the above described property as follows:

a. There shall be no use of the groundwater on the Property. There shall be no drilling for water conducted on the Property nor shall any wells be installed on the Property other than monitoring wells pre-approved by either GRANTOR or VDEQ. For any dewatering activities, a plan must be in place to address and ensure the appropriate handling, treatment, and disposal of any extracted ground water that may be contaminated.

b. The area of soil contamination indicated on that portion of the Property indicated on <u>Exhibit B</u> shall be permanently covered and maintained with either an impermeable material that prevents human exposure and limits water infiltration, or two (2) feet of clean and uncontaminated soil or fill.; and

c. Excavation and construction below two feet surface elevations is not prohibited within the areas containing contaminated soils as described in Exhibit B provided any contaminated soils that are excavated are removed and properly disposed of pursuant to both State and Federal requirements. Further the potential exists for impacts outside of these areas and as such precautions should be taken in all excavation activities and all soils managed in accordance with State and Federal requirements. Nothing herein shall limit or conflict with any other legal requirements regarding construction methods and techniques that must be taken to minimize risk of exposure while conducting work in contaminated areas. For any dewatering activities, a plan must be in place to address and ensure the appropriate handling, treatment, and disposal of any extracted ground water that may be contaminated.

d. The property will only be used for industrial and certain commercial purposes. There shall be no agricultural use of the land including forestry, fishing and mining; no hotels or lodging; no recreational uses including amusement parks, parks, camps, museaums, zoos, or gardens; no residential uses; and no educational uses such as elementary and secondary schools, or day care services. These prohibited uses are specifically defined by using the <u>North American Industry</u> <u>Classification System, United States, 1997 (NAICS)</u>, Executive Office of the President, Office of Management and Budget. The prohibited uses by code are: Sector 11 Agriculture, Forestry, Fishing and Hunting; Subsection 212 Mining (except Oil and Gas); Code 512132 Drive-In Motion Picture Theaters;

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Code 51412 Libraries and Archives; Code 53111 Lessors of Residential Buildings and Dwellings; Subsector 611 Elementary and Secondary Schools; Subsector 623 Nursing and Residential Care Facilities; Subsector 624 Social Assistance; Subsector 711 Performing Arts, Spectator Sports and Related Industries; Subsector 712 Museums, Historical Sites, and Similar Institutions; Subsector 713 Amusement, Gambling, and Recreation Industries; Subsector 721 Accommodation (hotels, motels, RV parks, etc.); Subsector 813 Religious, Grantmaking, Civic, Professional, and Similar Organizations; and Subsection 814 Private Households.

e. Any new structures to be built on the property will include vapor intrusion controls which shall include vapor barriers and/or sub-slab ventilation.

For the purpose of monitoring the restrictions contained herein, VDEQ or its respective successors and assigns shall have site access to the Property at reasonable times and with reasonable notice to GRANTOR.

It is the intention of GRANTOR that the restriction contained in this Declaration shall touch and concern the Property, run with the land and with the title to the Property, and shall apply to and be binding upon and inure to the benefit of the successors and assigns of the GRANTOR, and to VDEQ, its successors and assigns, and to any and all parties hereafter having any right, title or interest in the Property or any part thereof. The VDEQ, its successors and assigns may enforce the appropriate available legal remedies. Any forbearance on behalf of the VDEQ to exercise its right in the event of the failure of GRANTOR, its successors and assigns to comply with the provisions of this Declaration shall not be deemed or construed to be a waiver of the VDEQs rights hereunder. This Declaration shall continue in perpetuity, unless otherwise modified in writing by GRANTOR, its successors and assigns and the VDEQ, its successors and assigns as provided in paragraph 6 hereof. These restrictions may also be enforced in a court of competent jurisdiction by any other person, firm, corporation, or governmental agency that is substantially benefited by this restriction.

In order to ensure the perpetual nature of these restrictions, GRANTOR, its successors and assigns, shall reference these restrictions in any subsequent deed of conveyance, including the recording book and page of record of this Declaration.

This Declaration is binding until a release of covenant is executed by the Director of the Department of Environmental Quality and GRANTOR, and is recorded in the county land records. To receive prior approval from VDEQ to remove any requirement herein cleanup target levels established pursuant to VDEQ Statutes and rules must have been achieved. This Declaration may be modified in writing only. Any subsequent amendment must be executed by both GRANTOR, its successors and assigns, and the VDEQ or their respective successors and assigns and be recorded by GRANTOR or its successors and assigns as an amendment hereto.

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If any provision of this Declaration is held to be invalid by any court of competent jurisdiction, the invalidity of such provision shall not affect the validity of any other provisions thereof. All such other provisions shall continue unimpaired in full force and effect.

GRANTOR covenants and represents that on the date of execution of this Declaration that Grantor is seized of the Property in fee simple and has good right to create, establish, and impose this restrictive covenant on the use of the Property. GRANTOR also covenants and warrants that the Property is free and clear of any and all liens, mortgages, or encumbrances that could impair GRANTOR'S rights to impose the restrictive covenant described in this Declaration or that would be superior to the restrictive covenant described in this Declaration.

Given under my hand and seal at Lexington, Kentucky, on the 13^{\pm} day of October, 2013.

phenCrin ASHLAND INC. Kimberly Humphrey C Director, Corporate Real Estate Dept.

Commonwealth of Kentucky, County of Fayette

The foregoing instrument was acknowledged before me this 3th day of October, 2013, Kimberly Humphrey Czirr, Director, Corporate Real Estate for Ashland Inc., a Kentucky corporation.

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Notary Public Sandra Castiglia My Commission Expires May 15, 2017 My Commission Expires May 15, 2017 My Commission Expires May 10, 4488048

My commission expires:

Exhibit A

Legal Description of Property

PARCEL I

All of that certain tract or parcel of land located in Roanoke, Virginia, and being more particularly described as follows:

BEGINNING at the point of intersection of the south line of Patterson Avenue with the west line of Bridge Street, which portions of avenue and street were conveyed by the Virginia Holding Corporation to the City of Roanoke by Deed of Dedication of Easement dated December 4, 1952, of record in the Clerk's Office of the Hustings Court of the City of Roanoke, Virginia, said point being about 398 feet distance southwardly from and at right angles to the center line of eastbound main track of the Northfolk and Western Railway Company at Mile Post N-259 plus 4924 feet, more or less, as measured from Norfolk, Va.; thence with the west line of Bridge Street as follows: S. 41 degrees 12' E. 116.6 feet to a point; thence S. 28 degrees 30' E. 155.6 feet to a point corner to the right of way of Norfolk and Western Railway Company; thence with the right of way of said Railway by a 2-degree curve to the left, with a radius of 2864.9 feet, westwardly 242.0 feet to a point; thence leaving said right of way N. 16 degrees 34' W. 234.1 feet to a point in the south line of Patterson Avenue; thence with said line of avenue N. 73 degrees 26 ' E. 160.0 feet to the point of beginning and containing 1.15 acres, more or less, as shown on plat of survey by C.E. Lacy, Jr., Certified Land Surveyor dated February 20, 1984.

Being the same property conveyed to Ashland Chemical, Inc. (now Ashland Inc. through various intercompany name changes and mergers), by Deed dated October 1, 1989, and recorded in Deed Book 1614, Page 437.

PARCEL II

All that piece or parcel of land situate, lying and being in the City of Roanoke, Virginia, and being more particularly described as follows, to wit,

TO FIND the point of beginning, commence at the southwesterly corner of the intersection of Patterson Avenue S.W. and Bridge Street S.W.; thence, continuing along the westerly right-of-way of Bridge Street S.W., South 41°12'00" East, a distance of 116.60 feet to a point; thence, South 28°30'00" East, a distance of 155.60 feet to a corner marked number 3 and the TRUE POINT OF BEGINNING; and go thence, leaving Bridge Street and with 6 new division lines through the property of Norfolk and Western Railway Company, South 7°32'43" East, a distance of 9.78 feet to a corner marked number 4; thence, South 62°22'26" West, a distance of 13.86 feet to a corner marked number 5; thence, South 1°58'04" East, a distance of 19.85 feet to a corner marked number 6; thence, South 13°21'59" West, a distance of 13.14 feet to a corner marked number 7; thence, South 77°23'55" West, a distance of 214.40 feet to a corner marked number 8; thence, North 16°47'00" West, a distance of 52.18 feet to a corner marked 9,

said point being the southeasterly corner of property of Charisma Realty, Inc. (Deed Book 1561, Page 1911), said point also being the southwesterly corner of the property of Ashland Oil, Inc. (Deed Book 1614, Page 437); thence leaving Charisma Realty, Inc. and continuing along the southerly boundary of Ashland Oil, Inc. with a curve to the right, (Radius 2864.90 feet-Chord North 79°09'00" East, 241.98 feet) an arc distance of 242.00 feet to a corner marked number 3 and the True Point of Beginning; containing 0.26 of an acre, more or less, and being located substantially as shown on Plat of Survey entitled "Plat Showing Property (0.26 ac.) Being Conveyed To Ashland Oil, Inc. By Northfolk and Western Railway Company", prepared by Vincent K. Lumsden, Commonwealth of Virginia Land Surveyor No. 1428B, for Lumsden Associates, P.C., Engineers, Surveyors, Planners of Roanoke, Virginia, dated April 28, 1994.

Being the same property conveyed to Ashland Inc. by deed dated March 14, 1995, and recorded in Deed Book 1784, Page 140.

PROPERTY ADDRESS: 4410 Patterson Avenue SW, Roanoke, Virginia

TAX NUMBER: 1410109

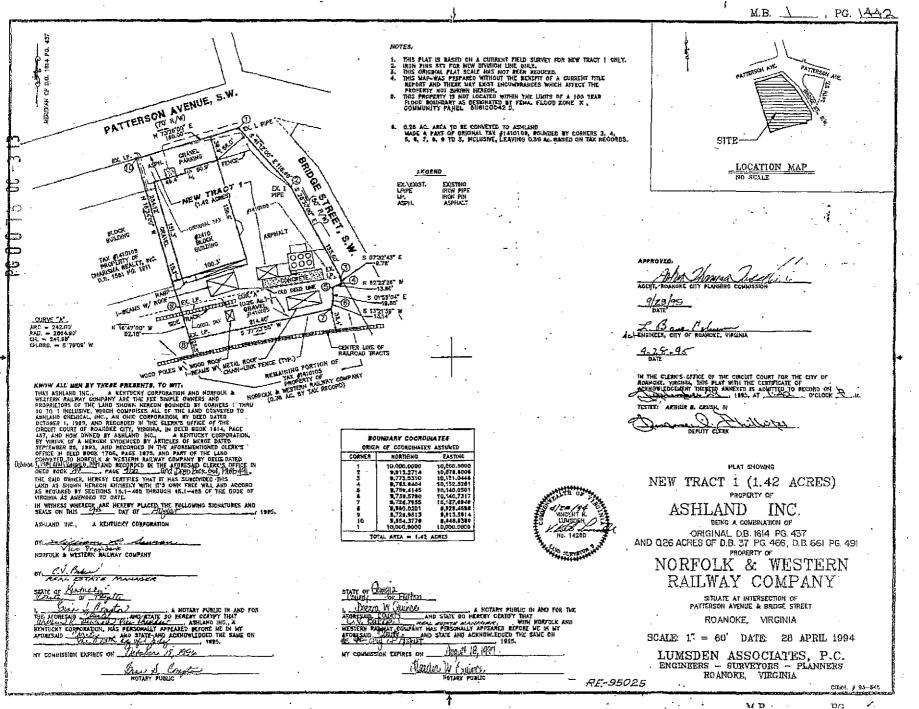
The above described property has been consolidated into one tax parcel as evidenced by plat recorded on September 29, 1995, in Map Book 1, Page 1442, Clerk's Office of Circuit Court for the City of Roanoke, a copy of which is attached hereto as Exhibit A-1.

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Exhibit A-1

Consolidation Plat

See attached plat recorded on September 29, 1995, in Map Book 1, Page 1442, Clerk's Office of Circuit Court for the City of Roanoke.



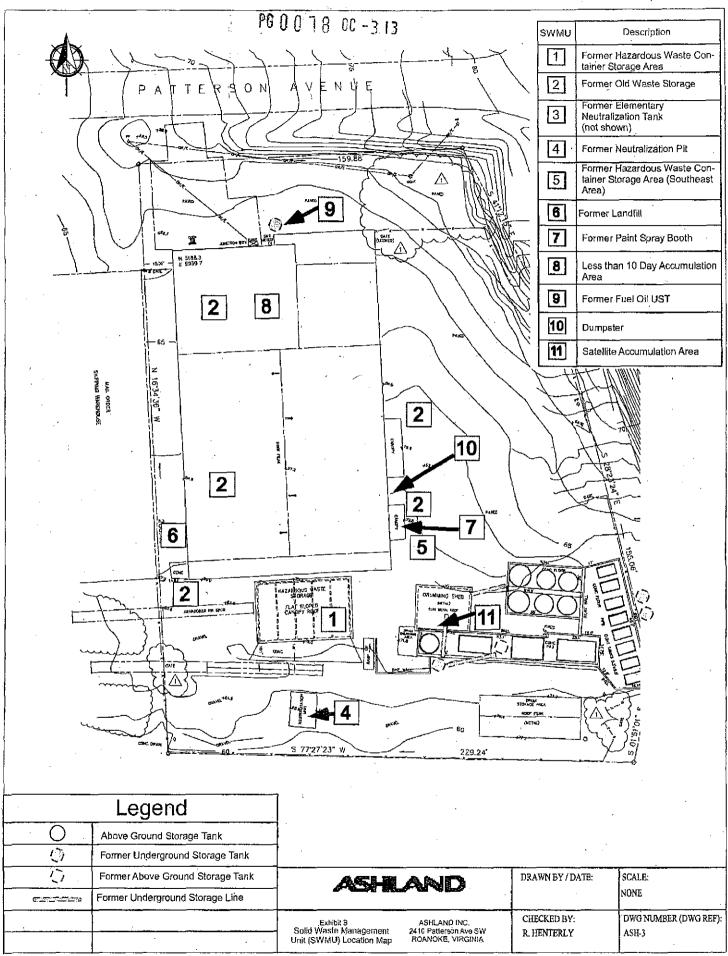
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Exhibit B

RCRA Solid Waste Management Units and Areas of Known Soil Impacts

See attached drawing



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INSTRUMENT #130011553 RECORDED IN THE CLERK'S OFFICE OF ROANOKE CITY ON OCTOBER 3, 2013 AT 11:44AM BRENDA S. HAMILTON, CLERK RECORDED BY: JRC

RECEIVED MAY 09 2012 REMEDIATION



Final Decision and Response to Comments Ashland, Inc. Roanoke, Virginia

I. INTRODUCTION

The United States Environmental Protection Agency (EPA) is issuing this Final Decision and Response to Comments (Final Decision) under the authority of the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act of 1976 (RCRA) and the Hazardous and Solid Waste Amendments of 1984 (HSWA), 42 U.S.C. § 6901 <u>et seq.</u>, and EPA regulations at 40 C.F.R. Parts 260-271 in connection with the Ashland, Inc. Facility located in Roanoke, Virginia. EPA has used the administrative procedures for permitting found in 40 C.F.R. Part 270 to provide public notice and solicit comment on EPA's proposed remedy.

II. SELECTED REMEDY

On February 2, 2012 EPA issued a Statement of Basis (SB) in which it explained the information gathered during environmental investigations at the Facility, and in which it described the Proposed Final Remedy for the Facility. In the SB, EPA's proposed remedy for the Facility consists of the following components:

(1) Implementation of institutional controls (ICs)

Under the proposed remedy, some concentrations of contaminants would remain in the soil at the Facility above levels appropriate for residential uses. As a result, the proposed remedy required the Facility to implement ICs to restrict use of the Facility property to prevent human exposure to contaminants remaining at the Facility. The ICs will be instituted through an enforceable mechanism such as a permit, order, or an Environmental Covenant, pursuant to the Virginia Uniform Environmental Covenants Act, Title 10.1, Chapter 12.2, §§ 10.1-1238-10.1-1250 of the Code of Virginia ("Environmental Covenant"), which will be recorded with the Clerk's Office of the Circuit Court of Roanoke. If the mechanism is to be an Environmental Covenant, Ashland, Inc. will be required to provide a coordinate survey, as well as a metes and bounds survey of the closed solid waste management units 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 VADEQ within sixty (60) calendar days of recordation.

The Environmental Covenant, permit or order will provide the following restrictions:

- i. a restriction that all excavation and disturbances to the subsurface soils, including construction and drilling, be conducted in accordance with an EPA approved Materials Management Plan that is prepared by an appropriately qualified person familiar with the environmental conditions at the Facility;
- ii. a restriction that Facility property not be used for residential purposes unless it is demonstrated to EPA that such use will not pose a threat to human health or the environment and EPA provides prior written approval for such use.

(2) Development and Implementation of a Materials Management Plan

EPA's remedy requires the development and implementation of a Materials Management Plan to be approved by EPA before any excavation and disturbances to the subsurface soils, including construction and drilling, can be performed at the Facility. The Materials Management Plan will describe how all excavated soils at the Facility will be handled and disposed. The Materials Management Plan will include a Health and Safety Plan, Sampling and Analysis Plan and Quality Assurance Project Plan. The Health and Safety Plan will, among other things, identify the locations at the Facility where contaminants remain in soils and detail how future onsite workers and contractors will be notified about such locations.

III. PUBLIC COMMENT PERIOD

Consistent with the public participation provisions under RCRA, EPA requested comments from the public on the proposed Final Remedy. The commencement of a thirty (30)-day public comment period was announced in the Roanoke Times on February 10, 2012. The public comment period ended on March 12, 2012. During that time, the Administrative Record, including the Statement of Basis describing the proposed remedy, was made available for review by the public at the EPA Region III office in Philadelphia and also at the Raleigh Court Branch of the Roanoke Public Library. EPA received no comments on its proposed Final Remedy.

IV. PUBLIC COMMENTS

The thirty (30) day comment period on the proposed remedy ended on March 12, 2012 and no comments were received on its proposed Final Remedy. Consequently, EPA's final determination is unchanged from the proposed Final Remedy. Therefore, the SB is hereby incorporated into this Final Decision by reference and made a part thereof as Attachment A to this document.

V. DECLARATION

Based on the Administrative Record compiled for the Corrective Action at the Ashland Inc. Facility, EPA has determined that the Final Remedy selected in this Final Decision is protective of human health and the environment.

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5/7/12 Date

Abraham Ferdas, Director Waste and Chemicals Management Division U.S. EPA Region III

Attachment A: Statement of Basis, dated February 2, 2012



UNITED STATES

ENVIRONMENTAL PROTECTION AGENCY

REGION III

STATEMENT OF BASIS

Ashland, Inc. EPA ID No. VAD 062 373 600 2410 Patterson Ave., S.W. Roanoke, VA 24016

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I. Introduction

The United States Environmental Protection Agency (EPA) has prepared this Statement of Basis (SB) under the Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984 (RCRA), 42 U.S.C. §§ 6901 to 6992k, to explain its proposed remedy for the Ashland, Inc. facility (hereinafter referred to as the Facility). The approximate 1.6 acre Facility is located at 2410 Patterson Avenue S.W. in Roanoke, Virginia, approximately 2.5 miles west of downtown Roanoke.

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 or from their property. In addition, information on the Corrective Action program as well as a fact sheet for the Facility can be found at http://www.epa.gov/reg3wcmd/correctiveaction.htm.

This SB explains EPA's proposed decision that no further actions to remediate soil and groundwater are necessary to protect human health and the environment. EPA's proposed remedy is to require the Facility to develop and maintain property restrictions known as Institutional Controls (ICs), and to develop, and implement if necessary, a Materials Management Plan.

The proposed ICs are detailed in Section VI below. The proposed ICs will assure that there will be no human exposure to on-site contaminants and no interference with the proposed remedy.

As described more fully in Section X below, EPA is providing a 30-day public comment period on this SB. EPA may modify its proposed remedy based on comments received during this period. EPA will announce its selection of a final remedy for the Facility in a document entitled Final Decision and Response to Comments (Final Decision or FDRTC) after the public comment period has ended.

Before EPA makes a final decision on its proposed remedy for the Facility, the public may participate in the remedy selection process by reviewing this SB and documents contained in the Administrative Record (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 in this matter to review the AR. The AR is available at the EPA Region III office, the address of which is provided in Section X, 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 and subsequently set forth its final decision in the FDRTC.

II. Facility Background

The Facility is located at 2410 Patterson Avenue, S.W. in Roanoke, Virginia, approximately 2.5 miles west of downtown Roanoke. Ashland, Inc. was formerly a chemical and plastics distribution facility. The Facility began operations sometime between the late 1960s and early 1970s. During this time, chemicals and plastics were received by truck, stored in bulk in containers, and then distributed to customers. On-site storage of chemicals and plastics materials was limited to less than ten (10) days. Transportation to its customers occurred in Facility-owned and operated vehicles which were maintained off-site. The blending of paint thinners was performed at the Facility, but no chemical manufacturing occurred at the Facility.

The Facility maintained 18 above ground storage tanks (ASTs) for product storage. The storage tanks held MEK, acetone, and other solvent type materials. Ashland, Inc.'s Product Tank Farm is surrounded by a concrete dike which ranges in height from 24" to 48", with an approximate capacity of 13,600 gallons. In 1980, Ashland, Inc. submitted a Notification of Regulated Hazardous Waste Management Activity for the Facility along with a RCRA Part A Permit Application to EPA and the Commonwealth of Virginia Department of Environmental Quality (VADEQ).

The Facility's initial Hazardous Waste Management Permit for Storage of Hazardous Waste (in Containers) (hereafter Container Storage Permit) was issued on February 4, 1986, with an expiration date of February 4, 1996. This permit was administratively continued until its reissuance in 1997, as Ashland, Inc. submitted a permit application in accordance with the Virginia Hazardous Waste Management Regulations (VHWMR) and the governing RCRA Regulations.

On July 29, 1997, the Container Storage Permit was subsequently reissued by the VADEQ, with an effective date of August 30, 1997. On October 22, 1997, the Facility notified the VADEQ of its intention to close the permitted hazardous waste storage facility by correspondence dated October 22, 1997. The Facility anticipated beginning closure activities by December 6, 1997.

VADEQ modified the Container Storage Permit on February 27, 1998, to facilitate closure in a more effective manner than was specified in the reissued 1997 Permit. In addition, VADEQ, on April 30, 1998, modified the Facility's permit to allow a risk-based closure in accordance with the applicable VHWMR regulations.

A Closure Report for the Hazardous Waste Container Storage Area, dated June 19, 1998, and revised May 14, 1999, and closure certifications, were submitted to the VADEQ for the Facility's permitted hazardous waste management unit (HWMU) (SWMU No. 1, Former Hazardous Waste Container Storage Area). The VADEQ documented the "clean closure" of the hazardous waste container storage area (SWMU No. 1) by approval of the Closure Report and closure certifications by correspondence dated July 25, 2000.

III. Summary of Environmental Investigations

Below is a summary of the investigations conducted of the Solid Waste Management Units (SWMUs) at the Facility. (see map attached hereto as figure 1)

SWMU No. 1 – Former Hazardous Waste Drum Storage Area

The former Hazardous Waste Drum Storage Area (SWMU No. 1) was an open sided steel structure with a steel roof and 6-inch thick concrete floor and curbing that had been constructed in 1998. The storage pad is curbed on three sides and sloped away from an entrance ramp. It was divided into five bays by four internal concrete curbs. Each storage bay was capable of storing a maximum of 2,200 gallons of hazardous waste (forty 55-gallon drums).

On February 4, 1986, a Hazardous Waste Management Permit for Storage of Hazardous Waste was issued to Ashland, Inc. by the VADEQ for the management of hazardous waste at the SWMU No. 1 area. This Permit was reissued by the VADEQ on July 29, 1997.

A Closure Report dated June 19, 1998, and revised on May 14, 1999, and closure certifications, were submitted by the Facility to the VADEQ in connection with SWMU No. 1. Subsequent closure information was provided to the VADEQ by the Facility's consultant by correspondence dated April 28, 2000, and May 19, 2000.

Closure activities included the cleaning of the SWMU No. 1's secondary containment area with a high-pressure washer and non-phosphate soap. The concrete was core-drilled and soil samples were taken and tested to assess potential releases from the secondary containment unit. Based on analytical results from the soil samples, the secondary containment pad and sub-soils were deemed clean in accordance with applicable risk-based closure requirements and no further action was deemed necessary. The VADEQ approved the clean closure of SWMU No. 1 on July 25, 2000 by letter to Ashland, Inc.

SWMU No. 2 – Former Old Waste Storage Areas

The four container storage areas listed under this SWMU No. 2 were utilized by the Facility on an interim or temporary basis for the storage of hazardous waste in containers while the Facility awaited final permit approval from VADEQ. According to a 1989 Closure Certification Report, four of five container storage areas located in and around the Facility warehouse that had been previously used by the Facility were closed, namely:

- Warm Warehouse Area
- Inside of Rear Warehouse Area
- Loading Dock (South of Building)
- · Outside Southwest Corner of Building Area

These four areas were pressure-washed by the Facility and subsequently deemed to be clean closed by an October 2, 1996 VADEQ correspondence to the Facility. The fifth storage area, SWMU No. 5, did not receive such approval by VADEQ and is discussed below.

SWMU No. 3 – Former Elementary Neutralization Tank

The Former Elementary Neutralization Tank (SWMU No. 3) was removed in May 1997 because drums were no longer washed at the Facility. According to VADEQ, SWMU No. 3 met the definition of a tank, was an elementary neutralization unit and met the elementary neutralization unit exemption of RCRA under 40 CFR 264.1(g)(6). Therefore, SWMU No. 3 was exempt from RCRA Permitting requirements. No evidence of a spill nor release was found during the October 2007 VADEQ/EPA site visit or was any evidence of spills or releases discovered during a 2007 review of VADEQ and EPA files.

SWMU No. 4 -- Former Neutralization Pit (Old Neutralization Pit)

In 1985, a Former Neutralization Pit was dismantled and removed during the construction of SWMU No. 3. No evidence of a spill or release was found during an October 2007 Facility visit conducted by EPA and VADEQ or in the files reviewed by EPA at the VADEQ or USEPA Region III offices. Facility representatives are unaware of any spills or releases from the Former Neutralization Pit and had no information regarding any spills or releases in the Facility files.

SWMU No. 5 – Former Hazardous Waste Container Storage Area (Southeast Area)

The Former Hazardous Waste Container Storage Area located at the southeastern corner of the warehouse, SWMU No. 5, did not receive approval for clean closure as did the four areas that comprised SWMU No. 2. Closure reports issued by the Facility indicated that soil screening results revealed the presence of volatile organic compounds. Therefore, additional soil sampling was recommended to better define the extent and concentration of soil contamination in this area. No further investigation was conducted by EPA at that time.

SWMU No. 5 is currently an asphalt covered area located outside at the southeastern corner of the warehouse. Nothing is presently stored at this location.

SWMU No. 6

SWMU No. 6 is located adjacent to the property line on the southwest corner of the Facility. The area is mid-way between two buildings, namely the warchouse and a one-story office building located on a neighboring property. Information in EPA files indicated that in 1973, the Facility may have buried four to five 55-gallon drums containing aqueous sulfuric acid and sludge in this area. Ashland Inc. further investigated this area and concluded that there were no signs of drum disposal or related soil contamination.

Further, during a 2007 EPA Site Inspection, no evidence of a spill or release was found. Facility representatives are unaware of any spills or releases from this unit and had no information regarding any spills or releases in facility files.

SWMU No. 7 - Former Paint Spray Booth

While it was operational, the Former Paint Spray Booth was equipped with fans and filters for paint capture. During a 2007 EPA Site Inspection, no evidence of a spill or release was found nor was any evidence of a spill or release found in the files reviewed at the VADEQ or EPA Region III offices. Facility representatives are unaware of any spills or releases from this unit and had no information regarding any spills or releases in the Facility's files.

SWMU No. 8 - 10 Days or Less Accumulation Area

SWMU No. 8 is an approximately 15 feet by 20 feet area located inside the warehouse which has a forty (40) 55- gallon drum capacity. There are no floor drains in the vicinity of SWMU No. 8 and spill equipment was readily available. According to Facility representatives SWMU No. 8 had been active for 3 to 4 years. No evidence of a spill or release was found during the 2007 EPA/VADEQ Facility visit or in the files reviewed at the VADEQ or USEPA Region III offices. Facility representatives are unaware of any spills or releases from this unit and had no information regarding any spills or releases in Facility files.

SWMU No. 9 – Former Fuel Oil Underground Storage Tank

The former fuel oil underground storage tank that contained No.2 fuel oil was located underground on the north side of the Facility office building. Facility personnel estimate that the tank was removed in the early 1990s. No evidence of a spill or release was found during the 2007 EPA/VADEQ Facility visit or in the files reviewed at the VADEQ or USEPA Region III offices. Facility representatives are unaware of any spills or releases from this unit and had no information regarding any spills or releases in Facility files.

SWMU No. 10 – Dumpster

The Facility maintains one dumpster for plant refuse consisting of cardboard and office refuse. No evidence of a spill or release was found during the 2007 Facility visit or in the files reviewed at the VADEQ or USEPA Region III offices. Facility representatives are unaware of any spills or releases from this SWMU and had no information regarding any spills or releases in Facility files.

SWMU 11 - Satellite Accumulation Area

The Facility operated one Satellite Accumulation Area in the Product Tank Farm outside of the warehouse. This area is contained within the Facility dike, and is paved with concrete. No evidence of a spill or release was found during the 2007 Facility visit or in the files reviewed at the VADEQ or USEPA Region III offices. Facility representatives are unaware of any spills or releases from this SWMU and had no information regarding any spills or releases in Facility files.

Summary

In summary, EPA evaluated all solid waste management units at the Facility, and with the exception of SWMU No. 5, had concluded that no further action was necessary at these SWMUs to protect human health and the environment. SWMU No. 5 is a former hazardous waste container storage area located to the southeast of the existing warehouse. In 1988 and 1989, the Facility conducted an investigation of SWMU No. 5 simultaneously with the investigation and closure activities conducted at SWMU No. 2. The results of the investigation of SWMU No. 5 are discussed below.

IV. Environmental Investigations for SWMU No. 5

During the 1989 Facility investigation of SWMU No. 5, four soil borings were drilled and sampled to a maximum depth of four feet. These soil borings were located in the center of the unit and on three sides (north, east, and south sides). Borings were not drilled on the west side of SWMU No. 5 as that area abuts the warehouse and loading dock and is not accessible. Results of the investigation indicated that shallow soils were impacted with volatile organic compounds (VOCs) including tetrachloroethylene (PCE), trichloroethylene (TCE), benzene, 1.1.1trichloroethane, trans-1,2-dichloroethene, toluene and a few other compounds. However, of the positive results only PCE and TCE were identified above their respective Risk Based Concentrations for industrial soils. PCE was identified above Risk-Based Concentrations (RBC) in eight out of twenty samples and TCE was identified above RBCs in two of the twenty samples collected. In order to complete the environmental assessment for the property, EPA requested that Ashland, Inc. conduct additional soil sampling at the SWMU No. 5 location. Ashland, Inc. accepted EPA's offer to complete the work under Region III's Facility Lead Program. The investigation was conducted in December 2009 in accordance with the Sampling and Analyses plan approved by EPA in November 2009. Sampling activities consisted of installing five soil borings in the area of SWMU No. 5 and one soil boring at a background location. Direct-push (Geoprobe[®]) soil sampling techniques were used to collect soil samples from these locations. The samples were analyzed for VOCs, semi volatile organic compounds (SVOC), metals, pH, formaldehyde, isopropyl alcohol and methanol.

Only PCE and trichloroethylene TCE were found in excess of the industrial RBCs during the 1989 sampling event. The maximum detections of both constituents were found in one sample at a depth of one foot, at concentrations of 120 mg/kg and 61 mg/kg, respectively. The results of the 2009 sampling event identified only one contaminant, PCE, in excess of its industrial RBC. PCE (6.8 mg/kg), in one sample at a depth of 12-13 feet, was found slightly in excess of the industrial RBC of 2.7 mg/kg. Additionally, detections of arsenic were above the industrial RBC, but were determined to be reflective of background concentrations and therefore, not considered further.

By comparing PCE concentrations in a soil sample taken at a three to four foot depth during the 2009 Facility investigation versus the four soil borings taken during the 1989 Facility investigation it appears that PCE concentrations in the Facility soils are naturally attenuating.

A sample collected from a depth of approximately three feet during the 1989 sampling event revealed PCE at a concentration of 2.90 mg/kg, slightly above the industrial RBC of 2.7 mg/kg for this compound; however, the concentration of PCE detected in a sample at an approximately three foot depth during the 2009 sampling event was only .15 mg/kg, well below the RBC. This may be indicative of the occurrence of natural attenuation of VOCs, which would be expected given the volatile nature of the compounds and the length of time between sampling events.

V. Summary of Human Health Assessment

On April 16, 2010, a human health risk assessment conducted by EPA showed that, in fact, none of the complete pathways evaluated was found to have either individual or cumulative carcinogenic or noncarcinogenic risks in excess of those considered protective by EPA. Therefore, the data should be considered adequate to support closure of SWMU No. 5 under an industrial land use scenario at the Facility.

It should also be noted that the analytical results for the organic compounds found in the soils from the 2009 sampling event revealed concentrations that were considerably less than the concentrations for the same compounds found in the soils from the 1989 sampling event. This decrease in contaminant concentrations would indicate that the contamination is naturally attenuating with time.

VI. Summary of Proposed Remedy

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

1. Implementation of Institutional Controls

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

The proposed ICs will be instituted through an enforceable mechanism such as a permit, order, or an Environmental Covenant, pursuant to the Virginia Uniform Environmental Covenants Act, Title 10.1, Chapter 12.2, §§ 10.1-1238-10.1-1250 of the Code of Virginia ("Environmental Covenant"), which will be recorded with the Clerk's Office of the Circuit Court of Roanoke. If the mechanism is to be an Environmental Covenant, Ashland, Inc. will be required to provide a coordinate survey, as well as a *metes and bounds survey* of the closed solid waste management units 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 VADEQ within sixty (60) calendar days of recordation.

The Environmental Covenant, permit or order would provide the following restrictions:

- i. a restriction that all excavation and disturbances to the subsurface soils, including construction and drilling, be conducted in accordance with an EPA approved Materials Management Plan that is prepared by an appropriately qualified person familiar with the environmental conditions at the Facility;
- ii. a restriction that Facility property not be used for residential purposes unless it is demonstrated to EPA that such use will not pose a threat to human health or the environment and EPA provides prior written approval for such use;

Compliance with the institutional controls shall be evaluated by the Facility on an annual basis. A report documenting the findings of the evaluation shall be provided to EPA and VADEQ.

If the Facility fails to meet its obligations under the enforceable mechanism proposed, EPA, in its sole discretion, may deem that additional ICs are necessary to protect human health or the environment, EPA has the authority to require such institutional controls.

2. Development and Implementation of a Materials Management Plan

EPA's proposed remedy requires the development and implementation of a Materials Management Plan to be approved by EPA before any excavation and disturbances to the subsurface soils, including construction and drilling, can be done at the Facility. The Materials Management Plan will detail how all excavated soils will be handled and disposed.

Soil remediation cleanup standards will be determined by EPA using EPA Region III's RBCs for industrial screening levels. In addition, all soils that are stockpiled will be sampled using the Toxicity Characteristic Leaching Procedure (TCLP) and will be disposed off-site. In addition, the Materials Management Plan will include soil stabilization requirements to minimize contact between storm water runoff and the parcel soils. Soil stabilization measures may include the construction of berms to prevent storm water from flowing onto certain areas as well as the construction of sumps with pumps to remove ponded water from low lying areas.

The Materials Management Plan will include a Health and Safety Plan, Sampling and Analysis Plan and Quality Assurance Project Plan. The Health and Safety Plan will among other things identify the locations at the Facility where contaminants remain in soils and detail how future on-site workers and contractors will be notified about such locations.

VII. Evaluation of EPA's Proposed Remedy

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 uses seven balancing criteria to select among alternative solutions, if more than one solution is proposed. The Facility has demonstrated that the current conditions meet the threshold criteria established by EPA

and because EPA is not selecting among alternatives, an evaluation of the balancing criteria is not necessary.

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

1. <u>Protect Human Health and the Environment</u> – EPA's proposed remedy protects human health and the environment from exposure to contamination based on current and anticipated land use.

2. <u>Achieve Media Cleanup Objectives</u> -EPA's proposed remedy meets the appropriate cleanup objectives based on assumptions regarding current and reasonably anticipated land and water resource uses. The anticipated future land use for this Facility is industrial. Environmental sampling activities conducted in 1989 and 2009 have revealed levels of contamination that are within acceptable limits for the protection of human health and the environment for the proposed future use of this property.

3. <u>Remediating the Source of Releases</u> –In all remedy decisions EPA seeks to eliminate or reduce further releases of hazardous wastes or hazardous constituents that may pose a threat to human health and the environment. Since this Facility is no longer operating there are no continuing activities to generate new contaminant sources. Based on the analytical results of samples collected during the 1989 and 2009 sampling events the concentrations of contaminants in subsurface soils appear to be decreasing through natural attenuation.

VIII. Environmental Indicators

EPA sets national goals to measure progress toward meeting the nation's major environmental goals. For Corrective Action, EPA evaluates two key environmental indicators for each facility: (1) current human exposures under control and (2) migration of contaminated groundwater under control. EPA has determined that the Facility met these indicators on September 15, 2010.

IX. Financial Assurance

EPA has evaluated whether financial assurance for corrective action is necessary to implement EPA's proposed decision at the Facility. Given that EPA's proposed decision does not require any further engineering actions to remediate any environmental media at this time and given that the costs of implementing institutional controls at the Facility will be de minimis, EPA is proposing that no financial assurance be required.

X. Public Participation

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 Administrative Record (AR) for the Facility. The AR contains all information considered by EPA in reaching this proposed decision. The Administrative Record is available at the following locations:

U.S. EPA Region III 1650 Arch Street Philadelphia, PA 19103 Contact: Leonard E. Hotham Phone: (215) 814-3184 Fax: (215) 814-3113 Email: Wentworth.William@epa.gov

Roanoke Public Library

Raleigh Court Branch2112 Grandin Road SW Roanoke, VA 24015-3528 Phone: (540) 853-2240 Fax: (540) 853-1783 <u>Raleigh.Library@roanokeva.gov</u> Branch Manager – Dianne McGuire

Hours Sunday & Monday Closed Tuesday 10:00 a.m. - 8:00 p.m. Wednesday & Thursday 10:00 a.m. - 6:00 p.m. Friday & Saturday 10:00 a.m. - 5:00 p.m.

Interested parties are encouraged to review the AR and comment on EPA's proposed decision. The public comment period will last thirty (30) calendar days from the date that notice is published in a local newspaper. You may submit comments by mail, fax, or e-mail to William Wentworth. EPA will hold a public meeting to discuss this proposed decision upon request. Requests for a public meeting should be made to William Wentworth.

EPA will respond to all relevant comments received during the comment period. If EPA determines that new information 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 announce its final decision and explain the rationale for any changes in a document entitled the Final Decision and Response to Comments (FDRTC). All persons who comment on this proposed decision will receive a copy of the FDRTC. Others may obtain a copy by contacting William Wentworth at the address listed above.

Date:

2/2/12

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Abraham Ferdas, Director Land and Chemicals Division US EPA, Region III

Figure 1: Map of Facility

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