

STATEMENT OF BASIS

International Paper, Franklin Mill
Franklin, Virginia
EPA ID No. VAD 003 112 265

1.0 INTRODUCTION

This Statement of Basis explains the Environmental Protection Agency's ("US EPA's") proposed remedy for the protection of human health and the environment at the International Paper ("IP"), Franklin Mill ("Facility"), located in Franklin, Virginia (see Figure 1). RCRA corrective action activities at the facility are being conducted under the direction of the US EPA Region III with assistance from the Virginia Department of Environmental Quality ("DEQ"). Activities under a Hazardous Waste Post Closure Care Permit for the No. 4 Lime Mud Pond are being conducted under the direction of the Virginia DEQ. This document summarizes the remedy that the US EPA Region III and IP have developed and evaluated under the US EPA Region III Facility Lead Corrective Action Agreement, entered into by IP on March 14, 2003. The purpose of this document is to solicit public comment on this proposal.

Prior to entering the Facility Lead Program, IP completed a voluntary site investigation and characterization. The site investigation and characterization included the collection of surface and subsurface soil samples, sediment samples, and surface water samples; the installation of temporary monitoring wells; and the collection of groundwater samples from these wells. Based on the results of these investigations, IP performed interim measures or remediation activities at eight of the Solid Waste Management Units, thereby, remediating all known sources that may potentially release hazardous waste to the environment. Also in 2003, and as required by the Facility Lead Agreement, IP submitted workplans to US EPA Region III and Virginia DEQ. These workplans addressed corrective action at the facility and included the installation and replacement of groundwater monitoring wells and the collection of groundwater samples in support of the Groundwater Environmental Indicator ("EI") and site-wide corrective action. Ten rounds of groundwater samples were collected from January 2004 through September 2006. The sampling results confirm that constituents in groundwater are either stable or decreasing in their concentrations relative to historical results. US EPA Region III determined that the Human Health EI was met in September 2003 and the Groundwater EI was met in August 2007. US EPA Region III has reviewed and approved all of the site characterization and risk assessment reports and concluded there is no unacceptable risk to human health or the environment.

This document describes the remedy US EPA Region III has selected to maintain the protection of human health and the environment at the Facility. This document also summarizes information that can be found in greater detail in the work plans and reports submitted by the Facility to US EPA Region III and Virginia DEQ. To gain a more comprehensive understanding of the RCRA activities that have been conducted at the Facility, US EPA Region III encourages the public to review these documents, which are found in the Administrative Record. This

Statement of Basis and the Administrative Record are located at the US EPA Region III Office in Philadelphia and at the Ruth Camp Campbell Library, 280 N. College Drive, Franklin, VA.

US EPA Region III will address all significant comments submitted in response to the proposed remedy described in this Statement of Basis. US EPA Region III will issue a Final Decision and Response to Comments after information submitted during the public comment period has been considered. If US EPA Region III determines that new information or public comments warrant a modification to the proposed remedy, US EPA Region III may modify the proposed remedy based on such new information and/or public comments. Therefore, the public is encouraged to review and comment on the remedy described in this document. The public may participate in this process by reviewing the Statement of Basis and documents contained in the Administrative Record and submitting written comments to US EPA Region III during the public comment period. Public participation is discussed in detail in Section 8.0.

2.0 FACILITY BACKGROUND

IP (formerly Union Camp Corporation) operates an integrated Kraft pulp and paper mill in Franklin, Virginia. The site is located on the Blackwater River in Isle of Wight County, eight miles from the North Carolina border. The Facility is located to the east of the Blackwater River. The areas to the north, south and west of the Facility are generally wooded, agricultural or residential (see Figure 1). The Facility is located on approximately 3,660 acres.

The paper mill has been in operation since 1937. Types of paper manufactured at the Facility include offset paper, postcard paper, one-sided coated paper which is later converted into book covers, envelope paper, brown Kraft envelope paper, Kraft bag paper, office paper and forms paper. The operation is fully integrated, from the manufacture of bleached pulp (using elemental chlorine-free processes) to the production of paper and the conversion of that paper into customer-sized rolls and sheets. The wood resource is converted into bleached pulp in the Pulp Mill/Bleach Plant with the by-products of the process converted into saleable chemicals. The Facility also utilizes recycled content from an on-site recycling plant.

Besides the main process area, most of the Solid Waste Management Units/Areas of Concern (“SWMUs/AOCs”) are located to the south of the paper mill process area. The following SWMUs/AOCs were identified either by US EPA Region III in the draft RCRA Facility Assessment (“RFA”) or through additional investigations by IP: No. 1 Lime Mud Pond (SWMU 2A), No. 2 Lime Mud Pond (SWMU 2B), No. 3 Lime Mud Pond (SWMU 2C), Waste Degreasing Solvent Disposal Area (SWMU 3), Tall Oil Sludge Disposal Area (SWMU 4), Highground Disposal Area (SWMU 5), Hazardous Waste Storage Building (SWMU 6), Hydrazine Unit (SWMU 7), Effluent Treatment System (SWMU 8), Blackwater Riverbank Area, Mill Process Area and Northwest Corner, Main Mill Canal, and Old Bleach Plant Ditch. Figure 2 presents the layout of the SWMUs/AOCs and the Facility.

The Facility also includes two specialty chemical plants and a lumber mill. These facilities are located north of the main process area of the paper mill. Within the lumber mill, two SWMUs, the Parts Washer in the Maintenance Shop and the Oil/Water Separator/Satellite Accumulation

Area, were identified, however it was determined that there had been no releases from these SWMUs. No SWMUs/AOCs were identified within the specialty chemical plants.

3.0 PREVIOUS INVESTIGATIONS

This section describes the site characterization, remediation, and groundwater monitoring work completed at the Facility. The Voluntary Remedial Action Program, interim measures, and corrective action groundwater monitoring are all components of this work, and are described below.

3.1 Voluntary Remedial Action Program (“VRAP”)

IP has completed a voluntary site investigation and characterization of all SWMUs identified by US EPA Region III in the draft RCRA Facility Assessment (“RFA”) and all other areas that might contain waste materials identified and self reported by IP as required by a post-closure care permit with the Virginia DEQ. Prior to conducting site characterization activities at the facility, IP prepared a site-specific workplan which detailed sampling protocols to determine the nature and extent of all releases of hazardous wastes and hazardous constituents at or from the facility. Additionally, prior to any sampling activity, a sampling event workplan was prepared to detail the specific sampling activities to be performed during that sampling event.

The site investigation and characterization included the collection of surface and subsurface soil samples, sediment samples, surface water samples, the installation of temporary monitoring wells, and the collection of groundwater samples from these wells. Soil samples were compared to US EPA Region III Risk Based Concentrations (“RBCs”). All soils were delineated to below the appropriate RBC screening levels or to the structural limit of the SWMU or Area of Concern (AOC) that might contain waste materials. All groundwater samples were compared to maximum contaminant levels (“MCLs”) or Tap Water RBCs. All groundwater was delineated to below appropriate screening levels or to the point of discharge to an abutting surface water body. Surface water and sediment samples were collected within SWMUs/AOCs that might contain waste materials when present. Surface water and sediment samples were also collected, as appropriate, where SWMUs /AOCs that might contain waste materials abutted surface water bodies or if groundwater above appropriate screening levels discharged to surface water bodies.

Constituents in soils or groundwater at concentrations that might cause a potential indoor or outdoor air impact were only observed at SWMU 4, the former Tall Oil Sludge Disposal Area. An interim measure that consisted of the removal of tall oil and soils to below risk-based clean-up goals was performed at this SWMU. This interim measure eliminated the need for further evaluation of potential air impacts.

A vast majority of samples collected during site characterization were submitted for chemical analysis for all Target Compound List/Target Analyte List (“TCL/TAL”) parameters: volatile organic compounds (“VOCs”), semi-volatile organic compounds (“SVOCs”), pesticides/polychlorinated biphenyls (“PCBs”), metals, and cyanide and Tentatively Identified Compounds (“TICs”). Very few constituents were detected at concentrations above screening

levels, and following interim measures (see below) all constituents in all media passed site-specific risk assessments.

3.2 Facility Lead Corrective Action Groundwater Monitoring Program

The Facility Lead Corrective Action Groundwater Monitoring Program was conducted from 2004 through 2006. The Facility Lead Corrective Action Groundwater Monitoring Program was developed based on the results of sampling performed between 1997 and 2000 during IP's VRAP. The objective of this program was to evaluate the nature and extent of releases from each SWMU/Area at the Site into the uppermost water-bearing unit. Based on the results of the 2004-2006 sampling, the objective of this Facility Lead Corrective Action Groundwater Monitoring Program was achieved, and US EPA Region III and the Virginia DEQ concluded that groundwater is adequately characterized at the Site.

Groundwater monitoring has shown that the constituents of concern at the Facility are primarily metals. The source of the metals detected in groundwater is naturally existing metals in the soil. The presence of organic compounds or the presence of either high or low pH conditions increases the solubility of metals resulting in dissolved metals in groundwater. In addition to these metals, only one organic constituent, benzene, was detected at two SWMUs (former Tall Oil Sludge Disposal Area and former Highground Disposal Area) in a total of three wells at a concentration above the MCL.

3.3 Other Facility Lead Activities

Based on US EPA Region III review of submitted documents, IP also performed additional activities under the Facility Lead Program including the following: sediment sampling, monitoring well installation and groundwater sampling, soil sampling, surface water sampling, inventory of residential wells in the area of the Facility, revision of the Part A Application for the Facility, and assessments of the lumber mill and specialty chemical plants. An assessment of the lumber mill completed in 2007 confirmed that although the lumber mill contained two SWMUs, no releases were identified and no further characterization of the two SWMUs was required. An assessment of the two specialty chemical plants, Air Products and Specialty Mineral Facilities, was also conducted. The assessment of the specialty chemical plants identified no SWMUs.

4.0 INTERIM MEASURES

IP performed interim measures at several SWMUs/AOCs that contained waste materials within the Facility. IP's remediation approach for these areas included the removal of materials, to the extent practical, that might act as sources of constituents to the environment. Interim measures have been performed at the following SWMUs/AOCs:

- No. 1 Lime Mud Pond (SWMU 2a) – Lime mud was removed from this SWMU in 1980 and the area was filled with sand and graded. The Mill's Customer Service Building was constructed over this SWMU.

- No. 2 Lime Mud Pond (SWMU 2b) – In 1996 and 1997, a total of 15,022 tons of lime mud and soils were removed to the lower of the RBC or the soil screening level (SSL) for protection of groundwater.
- No. 3 Lime Mud Pond (SWMU 2c) – In 1995 and 1996, approximately 32,400 tons of lime mud and soils were removed to the lower of mean background or the SSL.
- Tall Oil Disposal Area (SWMU 4) – In 2001, tall oil and soils (9,519 tons) were removed to risk-based concentrations.
- Highground (SWMU 5) – This SWMU was capped in 1987 and 10 years of post-closure monitoring was performed in accordance with Virginia DEQ industrial landfill regulations. The area is currently used by IP as a recreational area.
- Hazardous Waste Storage Building (SWMU 6) – This SWMU was clean closed. Closure was approved by Virginia DEQ.
- Main Mill Sewer Canal – Sediments were removed from the base of this canal and disposed of in IP's industrial landfill. Subsequent sampling and risk assessment showed that the remaining sediments did not cause an unacceptable risk. This approach was approved by Virginia DEQ.

With the completion of these remediation activities, all known significant sources that may potentially release to the environment have been remediated at the Facility. No additional interim measures are planned for the Facility.

5.0 SUMMARY OF RISK ASSESSMENTS

Once site characterization was complete, risk assessments were performed for each area evaluated. Human health risk assessments were performed following US EPA Region III and Virginia DEQ Voluntary Remediation Regulations. Screening-level ecological risk assessments were performed for areas of the Facility property that have habitat that could potentially support ecological receptors.

The results of the human health risk characterizations indicate that no adverse potentially carcinogenic or non-carcinogenic health effects would be expected to occur for a construction worker, an on-site worker, a recreating child or trespasser under both current and reasonably foreseeable future conditions, and that the risk assessments indicated that direct contact with soil, sediment, surface water, or groundwater will not result in adverse health effects. With the possible exception of exposure of aquatic and emergent vegetation to pond soils at the Effluent Treatment System, SWMU 8 (which given the Effluent Treatment System's designed use is not a significant issue), the results of the ecological risk assessments generally indicate that constituents of potential concern do not pose significant risks to ecological receptors.

The site characterization and risk assessment reports completed for each SWMU/AOC have been described in a series of reports. Additionally, an Executive Summary for all the work completed at the facility has been prepared. US EPA Region III has reviewed and approved all of the site characterization and risk assessment reports.

6.0 PROPOSED REMEDY

The goal of the proposed remedy is to ensure the overall protection of human health and the environment. The final remedy for the Facility has three components: cap inspection of the former landfill (Former Highground Disposal Area, SWMU 5), institutional controls, and a groundwater monitoring program based on historical results.

6.1 Cap Inspection

The former Highground Disposal Area (SWMU 5) was closed and capped in 1987 following the Virginia DEQ industrial landfill closure regulations. This area is currently used as a recreational area for IP. The cap at the former Highground Disposal Area will be monitored and inspected on an annual basis. Routine monitoring will include examination of the cover integrity. The procedures for the cap inspection will be detailed in a workplan to be approved by VADEQ/US EPA.

6.2 Institutional Controls

Institutional controls (ICs) will be implemented to minimize the potential for human exposure to any contamination left in place. Specifically, ICs will be necessary to prohibit the following activities:

- Residential use of the property in perpetuity;
- Use of groundwater from the upper aquifer in the area of SWMUs and downgradient of SWMUs until Media Cleanup Requirements (MCLs and RBCs (for constituents that do not have MCLs) for hazardous constituents (defined as constituents included on 40 CFR 264 Appendix VIII or Appendix IX)) for unrestricted use of groundwater are met; and
- Disturbance of the cap on the former Highground Disposal Area.

IC mechanisms to achieve these restrictions may include, but are not limited to, easements and real covenants, title notices and land use restrictions. The specifics for the ICs will be detailed in a workplan to be approved by VADEQ/US EPA.

6.3 Groundwater Monitoring

The objectives of the final remedy groundwater monitoring program will be to:

1. Ensure the protection of human health and the environment, and
2. Provide verification of natural attenuation with the ultimate goal of achieving Media Cleanup Requirements (MCLs and RBCs (for constituents that do not have MCLs) for hazardous constituents (defined as constituents included on 40 CFR 264 Appendix VIII or Appendix IX)).

The first objective, protection of human health and the environment, is being met for groundwater in the uppermost aquifer as a result of the following:

1. Groundwater in the uppermost aquifer in the vicinity of all monitoring wells with Media Cleanup Requirement exceedances is not currently used for drinking water.
2. Groundwater in the vicinity of all monitoring wells with Media Cleanup Requirements exceedances flows into adjacent surface water bodies and IP owns all land between locations with exceedances of groundwater screening levels and the adjacent surface water bodies.
3. IP will place a deed restriction in the area of SWMUs and downgradient of SWMUs to prohibit the use of groundwater for consumption and thereby prevent the future use of the uppermost aquifer for drinking water until Media Cleanup Requirements for unrestricted use of groundwater are met.

To meet the second objective of this program, monitoring to provide verification of attenuation, wells that exceed Media Cleanup Requirements will be monitored at a frequency to be approved by VADEQ/US EPA.

A description of the program to meet this objective will be provided in a workplan to be approved by VADEQ/US EPA.

The remedy will be implemented through a site-wide corrective action module in the current Hazardous Waste Post Closure Care Permit for the No.4 Lime Mud Pond implemented through the Virginia DEQ. Virginia DEQ and US EPA Region III will review the progress of the remedy activities to confirm that they continue to be protective of human health and the environment. If Virginia DEQ and US EPA Region III determine that IP is not achieving the requirements, Virginia DEQ and US EPA Region III may require IP to address the deficiency.

7.0 EVALUATION OF PROPOSED REMEDY

This section describes the nine criteria US EPA Region III used to evaluate the proposed remedy in accordance with US EPA's guidance. The criteria are applied in two phases. In the first phase, EPA evaluates four remedy threshold criteria as general goals. These four criteria are: protectiveness of human health and the environment, attainment of cleanup standards, controlling sources, and complying with waste management standards. US EPA Region III then evaluates the remaining five remedy selection factors or balancing criteria to demonstrate the appropriateness of the proposed remedy. These five criteria are: long-term reliability and effectiveness; reduction of waste toxicity, mobility or volume; short-term effectiveness; implementability; and cost.

7.1 Protectiveness of Human Health and the Environment

The proposed remedy is protective of human health and the environment. The site characterization and risk assessment reports completed for each SWMU/AOC and approved by US EPA Region III concluded there is no unacceptable risk to human health or the environment.

Although groundwater in the uppermost aquifer has Media Cleanup Requirement exceedances, groundwater in the vicinity of all monitoring wells with these exceedances is not currently used for drinking water. The proposed remedy includes placing a deed restriction in the area of SWMUs, and downgradient of SWMUs, to prohibit use of this groundwater for consumption and thereby prevent the future use of the uppermost aquifer for drinking water until Media Cleanup Requirements for unrestricted use of groundwater are met.

7.2 Attainment of Cleanup Standards

IP performed interim measures or remediation activities at eight of the SWMUs thereby remediating all known sources that may potentially release hazardous waste to the environment. The groundwater sampling results confirm that constituents in the groundwater are either stable or decreasing in their concentrations in relation to historical results. The proposed groundwater monitoring program will assess the achievement of Media Cleanup Requirements (MCLs and RBCs (for constituents that do not have MCLs) for hazardous constituents defined as constituents included on 40 CFR 264 Appendix VIII or Appendix IX) by monitoring natural attenuation.

7.3 Controlling the Sources of Contamination

This criterion does not apply. All known sources have been remediated at the Facility.

7.4 Compliance with Waste Management Standards

The only waste to be managed under the proposed remedy is small quantities of liquid waste generated during groundwater sampling (purge water and decontamination waste). These will be disposed of at the IP's on-site wastewater treatment system. Limited solid wastes are expected to be generated during groundwater sampling. These wastes will be disposed of in accordance with applicable regulations. The proposed remedy will comply with all relevant state and federal laws concerning waste management.

7.5 Long-term Reliability and Effectiveness

The proposed remedy provides long-term protectiveness of human health and the environment. Based on the risk assessments, there is no unacceptable risk to human health or the environment. There is no effect on human health from residual groundwater contamination as long as there is a prohibition on using groundwater as drinking water.

7.6 Reduction of Waste Toxicity, Mobility or Volume

This criterion does not apply. All known sources have been remediated at the Facility.

7.7 Short-Term Effectiveness

This criterion does not apply. The short-term effectiveness criterion is intended to address hazards posed during construction of the remedy. The proposed remedy does not involve construction.

7.8 Implementability

The implementability criterion addresses various constraints such as regulatory constraints, ability to obtain access agreements, and technological and practicability limitations. The proposed remedy will be easily implemented. Groundwater monitoring wells are already in place, the ICs are currently being developed, and there are no impediments to cap inspection.

7.9 Cost

The proposed remedy is cost effective in meeting the remedy objectives.

8.0 PUBLIC PARTICIPATION

EPA is requesting comments from the public on its tentative decision for this proposed remedy. The public comment period will last forty-five (45) calendar days from the date that this matter is publicly noticed in the Tidewater News, 1000 Armory Drive, Franklin, VA 23851 (April 14, 2008 to May 29, 2008 date). Comments should be sent to EPA in writing at the EPA address listed below, and all commenter's will receive a copy of the final decision and a copy of the response to comments.

A public meeting will be held upon request. Requests for a public hearing should be directed to Denis M. Zielinski of the EPA Regional Office at the address below or at (215) 814-3431.

The Administrative Record contains all information considered by EPA when making this proposal. The Administrative Record is available for review during business hours at the following locations:

U.S. Environmental Protection Agency – Region III
1650 Arch Street – 3WC23
Philadelphia, Pennsylvania 19103-2029
Contact: Denis M. Zielinski
Telephone Number: (215) 814-3431
Fax: (215) 814-3113
E-mail: zielinski.denis@epa.gov

Ruth Camp Campbell Library
280 N. College Drive
Franklin, Virginia 23851
Telephone Number: (757)-562-4801

Following the forty-five (45) calendar day public comment period, EPA will prepare a Final Decision Document which will address all written comments and any substantive comments presented verbally at a public meeting, if requested. The Final Decision Document and the Response to Comments will be made available to the public. If, on the basis of such comments or other relevant information, significant changes are proposed to be made to the corrective measures proposed EPA may seek additional public comment.

The Final Decision will be implemented through a site-wide corrective action module in the current Hazardous Waste Post Closure Care Permit for the No. 4 Lime Mud Pond implemented through the Virginia DEQ.