



U.S. Environmental Protection Agency
Resource Conservation & Recovery Act Permit
Pursuant to the 1984 Hazardous & Solid Waste Amendments
EPA I.D. Number: MSD 000 829 150

Owners:	Jaxon Energy LLC Blazer Property LLC	Facility Name and Location:	Former Ashland Inc. Facility 455 Industrial Drive Jackson, MS 39209
Operator:	Ashland Inc.	Latitude/Longitude:	32.334858°, -90.230212°
Jaxon Energy LLC Corporate Address		455 Industrial Drive, Jackson, MS 39209	
Ashland Inc. / Blazer Properties LLC Corporate Address		500 Hercules Road, Wilmington, Delaware 19808	

Pursuant to the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, 42 USC Section 6901 *et seq.*, and the Hazardous and Solid Waste Amendments (HSWA) of 1984, P.L. 98-616, and regulations promulgated thereunder by the U.S. Environmental Protection Agency (EPA) (codified and to be codified in Title 40 of the Code of Federal Regulations), this Permit is issued to Jaxon Energy LLC and Blazer Property LLC as owners, and Ashland Inc. as operator (all collectively, "the Permittee"), of a hazardous waste facility located at 455 Industrial Drive, Jackson, Hinds County, Mississippi 39209 (Facility).

On January 24, 2013, the Facility closed its hazardous waste storage areas, which were previously subject to a Mississippi Department of Environmental Quality (MDEQ) Hazardous Waste Management Permit. MDEQ determined that no post-closure care is required for this Facility. As a result, there is no MDEQ Hazardous Waste Management Permit for the Facility, and this HSWA Permit constitutes the full RCRA Permit for this Facility. The Permittee, pursuant to this Permit, shall be required to investigate any releases of hazardous waste or hazardous constituents at the Facility regardless of the time at which waste was placed in a unit and to take appropriate corrective action for any such releases.

The Permittee must comply with all terms and conditions of this Permit. This Permit consists of the conditions contained herein (including those in any appendices) and in the applicable RCRA regulations, as specified in this Permit, and the statutory requirements of RCRA, as amended by HSWA. Nothing in this Permit shall preclude the EPA from reviewing and modifying the Permit at any time during its term in accordance with 40 CFR § 270.41.

This Permit is based on the premise that information and reports submitted by the Permittee prior to issuance of this Permit are complete and accurate. Any inaccuracies found in this information or information submitted as required by this Permit may be grounds for termination or modification of this Permit in accordance with 40 CFR § 270.41, § 270.42, and § 270.43 and potential enforcement action. The Permittee must inform the EPA of any deviation from or changes in the information in the application which would affect the Permittee's ability to comply with the applicable regulations or Permit conditions.

This Permit is effective as identified below and shall remain in effect for ten (10) years, unless revoked and reissued under 40 CFR § 270.41, terminated under § 270.43, or continued in accordance with 40 CFR § 270.51(a). All obligations required under this Permit are in effect until deemed complete by the EPA.

If any conditions of this Permit are appealed in accordance with 40 CFR § 124.19, the effective date of the conditions determined to be stayed in accordance with 40 CFR § 124.16 shall be determined by final agency action as specified under 40 CFR § 124.19.

Issuance Date

Effective Date

Expiration Date

Heather Ceron, Acting Director
Land, Chemicals and Redevelopment Division

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PART I - STANDARD CONDITIONS

I.A. EFFECT OF PERMIT

(40 CFR § 260.10, § 270.4, and § 270.30(g))

Pursuant to 40 CFR § 260.10, the requirements of this Permit extend to all contiguous property (currently approximately 12.28 acres) under the control of the Permittee, including an approximately 6-acre portion that was previously owned by Trustmark National Bank but was purchased in 2018 by Blazer Properties LLC, a subsidiary of Ashland Inc. (the Blazer Property). The Facility layout diagram is incorporated as Figure 1, which demarks the property boundaries under the Permittee's control. Figure 2 outlines the general location of Solid Waste Management Units (SWMUs), Areas of Concern (AOCs), and groundwater monitoring wells. Subject to 40 CFR § 270.4, compliance with this Permit constitutes compliance, for purposes of enforcement, with the HSWA Corrective Action requirements of Subtitle C of RCRA. Issuance of this Permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought pursuant to Sections 3004(u) or (v), 3008(a), 3008(c), 3008(h), 3007, 3013, or 7003 of RCRA; Sections 104, 106(a), or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. §§ 9601 *et seq.*, commonly known as CERCLA); or any other law providing for protection of public health or the environment.

I.B. PERMIT ACTIONS

(40 CFR § 124.5, § 270.4(a), § 270.30(f), § 270.41, § 270.42, and § 270.43)

This Permit may be modified, revoked and reissued, or terminated for cause as specified in 40 CFR § 270.41, § 270.42, and § 270.43. The filing of a request for a permit modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee, does not stay the applicability or enforceability of any Permit condition.

I.C. STAYS OF CONTESTED PERMIT CONDITIONS (SEVERABILITY)

(40 CFR § 124.16)

As specified in 40 CFR § 124.16, if there is a request for review of this Permit, the contested permit conditions shall be stayed. Uncontested conditions which are not severable from those contested shall also be stayed together with the contested conditions. All other conditions of the Permit become fully effective and enforceable thirty (30) calendar days after the EPA notifies the Environmental Appeals Board, the Permittee, and all other interested parties of this Permit's uncontested (and severable) conditions.

I.D. DUTIES AND REQUIREMENTS

I.D.1. Duty to Comply

(40 CFR § 270.30(a))

The Permittee shall comply with all conditions of this Permit, except to the extent and for the duration such noncompliance is authorized by an emergency permit. Any permit noncompliance, other than noncompliance authorized by an emergency permit, constitutes

a violation of RCRA and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application.

I.D.2.

Duty to Reapply

(40 CFR § 270.10(h) and § 270.30(b))

If the Permittee will continue an activity required by this Permit, after the expiration date of this Permit, the Permittee shall submit a complete application for permit renewal per 40 CFR § 270.30(b), at least **one hundred eighty (180) calendar days** before this Permit expires, unless permission for a later date has been granted by the EPA.

I.D.3.

Obligation for Corrective Action

(RCRA § 3004(u) and (v) and 40 CFR § 264.101, § 270.1(c), and § 270.51)

The Permittee is required to continue this Permit for any period necessary to comply with the Corrective Action requirements of this Permit.

I.D.4.

Cost Estimate for Corrective Action

(RCRA § 3004(u) and (v) and 40 CFR § 264.101)

The Permittee has already established a cost estimate for Corrective Action and is currently providing financial assurance based on such cost estimate. A new cost estimate is not required at the time of this Permit renewal, although annual updates are required as set forth in Condition I.D.4.c. If there are future changes to the Corrective Action required by this Permit, the provisions of Condition I.D.4.d. shall apply.

I.D.4.a.

The Permittee shall prepare a cost estimate for the completion of any Corrective Action required under this Permit. This cost estimate shall be used as a basis for the financial assurance required under Condition I.D.5. and 40 CFR § 264.101. Such cost estimate shall be based upon the cost of assessment of all affected media and the design, installation, operation, inspection, monitoring, and maintenance of the Corrective Action system to meet the requirements of 40 CFR § 264.101 and this Permit, including any treatment system necessary for all affected media. Such cost estimate will include the full cost (100%) of Corrective Action as defined by Condition I.G.4. of this Permit. The cost estimate shall also cover the total third-party cost of implementing the Corrective Measures, including any necessary long-term Corrective Action costs. Third-party costs are described in 40 CFR § 264.142(a)(2) and shall include all direct costs and also all indirect costs (including contingencies) as described in EPA Directive No. 9476.00-6 (November 1986), Volume III, Chapter 10. The cost estimate shall contain sufficient details to allow it to be evaluated by the EPA.

I.D.4.b.

The Permittee shall submit the cost estimate for completion of Corrective Action required under 40 CFR § 264.101 and this Permit **within one hundred twenty (120) calendar days** of the effective date of this Permit.

I.D.4.c.

The Permittee shall annually adjust the cost estimate for inflation **sixty (60) calendar days** prior to the anniversary date of the establishment of the financial assurance mechanism unless using a financial test or corporate guarantee, in which case the estimate shall be updated **thirty (30) calendar days** after the close of the Permittee's fiscal year.

I.D.4.d. The Permittee shall submit cost adjustments for changes to the Corrective Action to the EPA **within thirty (30) calendar days** after receiving approval of the change if the change increases the cost of the Corrective Action. Cost adjustments related to a permit modification made pursuant to Condition II.K.2. for Corrective Measures identified as part of the selected Remedy shall be submitted **within one hundred twenty (120) calendar days** of the effective date of the permit modification.

I.D.5. Financial Assurance for Corrective Action
(RCRA § 3004(u) and (v) and 40 CFR § 264.101(c))

The Permittee is currently providing financial assurance to the EPA in the amount of the cost estimate for Corrective Action. Any changes to the cost estimate or updates to the Permittee's financial assurance must comply with Conditions I.D.4.c., I.D.4.d., and this Condition I.D.5.

I.D.5.a. The Permittee shall demonstrate continuous compliance with 40 CFR § 264.101 by providing documentation of financial assurance as described in 40 CFR § 264.140 through § 264.151 in at least the amount of the cost estimate required under Condition I.D.4.

I.D.5.b. The Permittee shall submit financial assurance for the full cost of the Corrective Action as required under 40 CFR § 264.101 no later than **sixty (60) calendar days** after the approval of the cost estimate described in Condition I.D.4. of this Permit.

I.D.5.c. The Permittee may use the mechanisms described in 40 CFR § 264.143, §264.145, and § 264.151 for financial assurance for Corrective Action. References to regulatory requirements for "closure and/or post-closure care" shall be replaced with the phrase "closure, post-closure care, and/or corrective action," as appropriate. If the Permittee selects a Trust Fund for its financial assurance mechanism, it may use the calculation set forth at 40 CFR § 264.143(a)(3) to facilitate the funding of the Trust Fund on an annual basis.

I.D.6. Need to Halt or Reduce Activity Not a Defense
(40 CFR § 270.30(c))

In the event of an enforcement action, it shall not be a defense that the Permittee must halt or reduce permitted activities in order to maintain compliance with the conditions of this Permit.

I.D.7. Duty to Mitigate
(40 CFR § 270.30(d))

In the event of noncompliance with this Permit, the Permittee shall take all reasonable steps to minimize Releases of Hazardous Waste or Hazardous Constituents to the environment and shall carry out such measures as are reasonable to prevent significant adverse effects on human health or the environment.

I.D.8. Proper Operation and Maintenance
(40 CFR § 270.30(e))

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the

Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance include effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve and maintain compliance with the conditions of the Permit.

I.D.9. Duty to Provide Information
(40 CFR § 270.30(h))

The Permittee shall furnish to the EPA, within a reasonable time, any relevant information which the EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit. The Permittee shall also furnish to the EPA, upon request, copies of any record required to be kept by this Permit or required to be kept per applicable RCRA requirements.

I.D.10. Inspection and Entry
(40 CFR § 270.30(i))

The Permittee shall allow the EPA, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

- a. Enter the Permittee's premises where a RCRA regulated activity is located or conducted, or where records must be kept under the conditions of this Permit and applicable RCRA requirements;
- b. Have access to and copy any records that must be kept under the conditions of this Permit and applicable RCRA requirements;
- c. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated, or required under this Permit or subject to RCRA; and
- d. Sample or monitor for the purposes of assuring permit compliance or as otherwise authorized by RCRA, any substances or parameters at any location.

I.D.11. Monitoring and Records
(40 CFR § 264.74(b) and § 270.30(j))

I.D.11.a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative waste sample to be analyzed must be the appropriate method from Appendix I of 40 CFR Part 261, the EPA Region 4 Field Branches Quality System and Technical Procedures (most recent version), or an equivalent method approved by the EPA. Procedures for sampling contaminated media must be those identified in the EPA Region 4 Field Branches Quality System and Technical Procedures (most recent version), or an equivalent method approved by the EPA. Laboratory methods must be those specified in the most recent edition of Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW846, or an equivalent method approved by the EPA.

I.D.11.b. The Permittee shall retain at the Facility, or other appropriate location as approved by the EPA, records of all monitoring information required under the terms of this Permit and records of all data used to complete the application for this Permit for a period of at least three (3) years from the date of the sample, measurement, report, certification or

application, or until Corrective Action is completed, whichever date is later. These periods may be extended by request of the EPA at any time and are automatically extended during the course of any unresolved enforcement action regarding this Facility.

I.D.11.c. Records of monitoring information shall specify:

- i. The dates, exact place, and times of sampling, or measurements;
- ii. The individuals who performed the sampling or measurements;
- iii. The dates analyses were performed;
- iv. The name of the laboratory which performed the analyses;
- v. The analytical techniques or methods used; and
- vi. The results of such analyses.

I.D.11.d. All monitoring results and data shall be submitted to the EPA in accordance with the format specified in the EPA Region 4 Land, Chemicals and Redevelopment Division (LCRD) Electronic Data Deliverables (EDD) Policy and Process (August 10, 2021) or any equivalent process approved by the EPA. Each work plan submitted under this Permit shall identify the EDD format to be used for chemical and geologic data submitted under the terms of this Permit. Upon request, the Permittee shall resubmit previously submitted chemical and geologic data regarding the Facility in the specified EDD format to facilitate work plan and/or report development. Upon such request, the Permittee and the EPA shall identify the scope of the data to be resubmitted and a timeframe for such resubmission.

I.D.12. Reporting Planned Changes
(40 CFR § 270.30(l)(1)-(2))

The Permittee shall give written notice to the EPA as soon as possible of any planned physical alterations or additions, including Permittee-initiated Interim Measures (IM) under Condition II.F.1.e., which impact known or suspected contamination at or from SWMUs or AOCs referenced in Conditions II.A., II.B., and II.C. The notice shall include, at a minimum, a summary of the planned change, the reason for the planned change, a discussion of the impact(s) the planned change will have on the ability to investigate contamination at or from the SWMU or AOC, and a discussion of the impact(s) the planned change will have on the known or suspected contamination.

I.D.13. Anticipated Noncompliance
(40 CFR § 270.30(l)(2))

The Permittee shall give advance notice to the EPA of any planned changes in the permitted Facility or activity which may result in noncompliance with the requirements of this Permit.

I.D.14. Transfer of Permit
(40 CFR § 264.12(c), § 270.30(l)(3), and § 270.40)

This Permit may be transferred to a new owner or operator only after notice to the EPA and only if the Permit is modified or revoked and reissued pursuant to 40 CFR § 270.40(b) or § 270.41(b)(2) to identify the new owner or operator and incorporate such other requirements as may be necessary under RCRA. Before transferring ownership or operation of all or any portion of the Facility, the Permittee shall notify the new owner or operator in writing of the applicable RCRA and HSWA requirements and this Permit. In

conjunction with any transfer of ownership or operation of the Facility or any portion of the Facility, notice must be provided to the EPA, and the new owner or operator must submit a revised permit application to the EPA no later than **ninety (90) calendar days** prior to the scheduled change requesting to be added to the Permit as a Permittee. The Permit will be modified to reflect the addition of the new Permittee. If the transfer of ownership involves subdividing the Facility, a map and legal description shall be provided to the EPA that identifies the portions of the Facility owned by each owner.

I.D.15. Compliance Schedules
(40 CFR § 270.33)

Written notification of compliance or noncompliance with any item identified in the Schedule of Compliance (Appendix D) of this Permit shall be submitted according to each schedule date. If the Permittee does not notify the EPA within **fifteen (15) calendar days** of its compliance or noncompliance with the schedule, the Permittee may be subject to an enforcement action. Submission of a required item according to the schedule constitutes notification of compliance.

I.D.16. Twenty-Four Hour Reporting
(40 CFR § 264.56(d), § 270.30(l)(6), and § 270.30(h))

I.D.16.a. The Permittee shall report any noncompliance or any imminent or existing hazard from a Release of Hazardous Waste or Hazardous Constituents which may endanger human health or the environment. Any such information shall be reported orally to the EPA **within twenty-four (24) hours** from the time the Permittee becomes aware of the circumstances. This report shall include:

- i. Information concerning the Release of any Hazardous Waste or Hazardous Constituents which may endanger public drinking water supplies; and
- ii. Information concerning the Release or discharge of any Hazardous Waste or Hazardous Constituents, or of a fire or explosion at the Facility, which could threaten the environment or human health outside the Facility.

I.D.16.b. The description of the occurrence and its cause shall include:

- i. Name, address, and telephone number of the owner or operator;
- ii. Name, address, and telephone number of the Facility;
- iii. Date, time, and type of incident;
- iv. Name and quantity of materials involved;
- v. The extent of injuries, if any;
- vi. An assessment of the actual or potential hazard to the environment and human health outside the Facility; and
- vii. Estimated quantity and disposition of recovered material that resulted from the incident.

I.D.16.c. A written report shall also be provided to the EPA **within fifteen (15) calendar days** of the time the Permittee becomes aware of the circumstances. The written report shall contain the information specified under Conditions I.D.16.a. and b.; a description of the noncompliance or imminent hazard and its cause; the periods of noncompliance (including exact dates and times); whether the noncompliance or imminent hazard has been corrected;

and if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance or imminent hazard.

I.D.17. **Other Noncompliance**
(40 CFR § 270.30(l)(10))

The Permittee shall report all other instances of noncompliance not otherwise required to be reported in accordance with Condition I.D.16. at the time written reports as required by this Permit are submitted. The reports shall contain the information listed in Condition I.D.16., as appropriate.

I.D.18. **Other Information**
(40 CFR § 270.30(l)(11))

Whenever the Permittee becomes aware that the Permittee failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or in any report(s) or document(s) submitted to the EPA, the Permittee shall promptly submit such facts or information.

I.E. **SIGNATORY REQUIREMENT AND CONTRACTOR QUALIFICATIONS**
(40 CFR § 270.11 and § 270.30(k))

I.E.1. All applications, reports, or information submitted to the EPA shall be signed and certified in accordance with 40 CFR § 270.11.

I.E.2. All work performed pursuant to this Permit shall be under the direction and supervision of one or more professional engineers, hydrologists, geologists, or environmental scientists, or by others as deemed appropriate by the EPA, with expertise in Hazardous Waste cleanup and/or Corrective Action. The Permittee's contractor or consultant shall have the technical expertise sufficient to adequately perform all aspects of the work for which it is responsible. Additionally, the Permittee shall ensure that when a license is required, only licensed individuals shall be used to perform any work required by this Permit.

I.F. **CONFIDENTIAL INFORMATION**
(40 CFR § 270.12 and Part 2)

The Permittee may claim confidential any information required to be submitted by this Permit in accordance with 40 CFR § 270.12.

I.G. **DEFINITIONS**
(40 CFR Parts 124, 260, 261, 264, and 270 and RCRA, as amended)

For the purposes of this Permit, terms used herein shall have the same meaning as those in RCRA or the applicable RCRA regulations, unless this Permit specifically provides otherwise. Where terms are not defined in the statute or regulations, the Permit, or EPA guidelines or publications, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

For purposes of this Permit, the following terms have the meanings set forth below:

- I.G.1. The term “**Area of Concern**” (AOC) includes any area having a probable Release of a Hazardous Waste or Hazardous Constituent which is not from a SWMU and is determined by the EPA to pose a current or potential threat to human health or the environment. Such AOCs may require investigations and remedial action as required under Section 3005(c)(3) of RCRA and 40 CFR § 270.32(b)(2) in order to ensure adequate protection of human health and the environment.
- I.G.2. The “**Blazer Property**” means an approximately 6-acre portion of the Facility that was previously owned by Trustmark National Bank, was purchased in 2018 by Blazer Properties LLC, a subsidiary of Ashland Inc., and is depicted as “Blazer Properties LLC” (parcels 309-25 and 309-25-8) in Figure 1.
- I.G.3. The “**2012 CMI Plan**” means the Corrective Measures Implementation Plan dated May 14, 2012, prepared by Arcadis U.S., Inc. for Ashland Inc. and approved by the EPA.
- I.G.4. The “**2002 Confirmatory Sampling Program Report**” means the Confirmatory Sampling Program Investigation Report prepared for U.S EPA Region 4 dated January 15, 2002, documenting Confirmatory Sampling activities at the Facility.
- I.G.5. “**Corrective Action**” shall be defined as the process covering all activities, including activities conducted beyond the Facility boundary, that are proposed or implemented to facilitate assessment, monitoring, and active or passive remediation of Releases of Hazardous Waste or Hazardous Constituents to air, soil, surface water, sediments, or groundwater associated with SWMUs and/or AOCs located at the Facility or off-site, as required by 40 CFR § 264.101, or as otherwise required and specified by this Permit.
- I.G.6. A “**Corrective Action Management Unit**” (CAMU) means an area, designated by the EaPA within the Facility, used only for managing remediation wastes for implementing Corrective Action or cleanup at the Facility.
- I.G.7. “**Corrective Measures**” means those technologies, engineering or management controls, or Institutional Controls, designed or evaluated to achieve long-term protection of human health and the environment for all Releases of Hazardous Waste or Hazardous Constituents from any SWMU or AOC at the Facility, regardless of the time at which waste was placed in the unit, as required by 40 CFR § 264.101. Corrective Measures may address Releases to air, soils, surface water, sediments, or groundwater. Corrective Measures are identified to formulate remedial alternatives for evaluation in the Corrective Measures Study (CMS). Ultimately, the CMS will recommend a Remedy for consideration by the EPA.
- I.G.8. “**Discover,**” “**Discovery,**” or “**Discovered**” as used in Part II of this Permit refers to the date on which the Permittee or the EPA either: (1) visually observes evidence of a new SWMU or AOC; (2) visually observes evidence of a previously unidentified Release of Hazardous Waste or Hazardous Constituents to the environment; or (3) receives information which suggests the presence of a new Release of Hazardous Waste or Hazardous Constituents to the environment.
- I.G.9. The term “**Extent of Contamination**” is defined as the horizontal and vertical area in which the concentrations of Hazardous Constituents in the environmental media being investigated are above detection limits or background concentrations indicative of the region, whichever is appropriate as determined by the EPA.

- I.G.10. The “**Facility**” means all contiguous property under the control of the Permittee, as depicted on Figure 1, which demarks the property boundaries under the Permittee’s control as of the effective date of this Permit.
- I.G.11. “**Final Decision and Response to Comments (FDRTC)**” refers to the document(s) issued by the EPA after the close of the public comment period to finalize a permit modification or permit issuance/renewal. The FDRTC may document the selection of a Remedy and provide responses to any comments received during the public comment period and/or public hearing.
- I.G.12. The term “**Hazardous Constituents**” shall mean those substances listed in 40 CFR Part 261 Appendix VIII and 40 CFR Part 264 Appendix IX, or any substance deemed appropriate by the EPA.
- I.G.13. “**Hazardous Waste**” for purposes of implementing Corrective Action means a Solid Waste, or combination of Solid Wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may: (a) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (b) pose a substantial or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of or otherwise managed. *See* 42 U.S.C. § 6903(5). The term “Hazardous Waste” includes Hazardous Constituents as defined above.
- I.G.14. The “**2014 HSWA Permit**” shall mean the Corrective Action permit issued for the Facility to Ashland Inc. and Jaxon Energy LLC by the EPA on August 4, 2014, effective September 3, 2014.
- I.G.15. “**Institutional Controls**” (IC) are non-engineered instruments, such as administrative and legal controls, that help minimize the potential for exposure to contamination and/or protect the integrity of the Corrective Action process. ICs include, but are not limited to, Environmental Covenants pursuant to the Mississippi Uniform Environmental Covenants Act (“MUECA”), Miss. Code Ann. §§ 89-23-1 *et seq.*, as well as other mechanisms deemed to be needed to protect human health or the environment (*e.g.*, other proprietary controls, government controls, informational devices, *etc.*).
- I.G.16. “**Interim Measures**” (IM) are actions necessary to minimize or prevent the further migration of Hazardous Waste and Hazardous Waste Constituents and limit actual or potential human and environmental exposure to contaminants while long-term Corrective Measures are evaluated and, if necessary, implemented.
- I.G.17. The “**EPA**” means the U.S. Environmental Protection Agency, Region 4, or any successor departments or agencies.
- I.G.18. A “**Release**” includes any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment of any Hazardous Waste or Hazardous Constituents.
- I.G.19. The “**Remedy**” is the particular Corrective Measure(s) selected by the EPA as the approach to achieve long-term protection of human health and the environment for

Releases of Hazardous Waste or Hazardous Constituents from any SWMU or AOC at the Facility, regardless of the time at which waste was placed in the unit, as required by 40 CFR § 264.101. A Remedy may be Facility-wide or pertain only to specific areas of the Facility.

- I.G.20. **“Remedy Construction”** shall mean the event when the EPA acknowledges in writing that the Permittee has completed construction of the selected Remedy and that the Remedy is fully functional as designed, whether or not final cleanup levels or other requirements have been achieved.
- I.G.21. A **“Remedy Decision”** shall mean the event by which the EPA formally selects the specific Corrective Measure(s) designed to meet RCRA’s long-term goals of protection of human health and the environment. A Remedy Decision may be Facility-wide or pertain only to specific areas of the Facility.
- I.G.22. The **“2011 Revised CMS Report”** shall mean the Corrective Measures Study Report, dated December 12, 2008, and Revised Final Corrective Measures Study Report, dated August 12, 2011, prepared by ARCADIS U.S., Inc. for the Facility and approved by the EPA on February 7, 2012.
- I.G.23. The term **“Screening Levels”** shall mean EPA-approved health-based or environmental-based concentrations of Hazardous Constituents determined to be indicators for the protection of human health and/or the environment.
- I.G.24. **“Solid Waste”** means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under Section 402 of the Federal Water Pollution Control Act, as amended (86 Stat. 880), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 923). *See* 42 U.S.C. § 6903(7).
- I.G.25. A **“Solid Waste Management Unit” (SWMU)** includes any unit which has been used for the treatment, storage, or disposal of Solid Waste at any time, irrespective of whether the unit is or ever was intended for the management of Solid Waste. Hazardous waste management units, which are regulated under 40 CFR Parts 264/265, are also SWMUs. SWMUs include areas that have been contaminated by routine and systematic Releases of Hazardous Waste or Hazardous Constituents, excluding one-time accidental spills that are immediately remediated and cannot be linked to Solid Waste management activities (*e.g.*, product or process spills).
- I.G.26. A **“Statement of Basis”** is a document that is used in lieu of a fact sheet to describe the EPA’s proposed permitting decision and to solicit public comment. For example, a State of Basis often describes the process the EPA uses under RCRA to select a Remedy for containing or cleaning up contamination at a facility. Specific information in the Statement of Basis can include: description and environmental setting of the facility, names and concentrations of Hazardous Constituents detected at the facility and associated exposure

pathways, remedial alternatives and proposed Remedy, innovative technologies considered in determining the Remedy, and public involvement requirements.

PART II - CORRECTIVE ACTION

II.A. APPLICABILITY

(RCRA § 3004(u) and (v), § 3005(c), 40 CFR § 264.101, § 270.32(b)(2), § 264.552, § 270.14(d), §270.41, §270.42, §270.11 and § 270.300(k))

The Conditions of this Part apply to:

- II.A.1. The SWMUs and AOCs identified in Appendix A, Table A-1, which require no further action under Part II of this Permit at this time;
- II.A.2. The SWMUs and AOCs identified in Appendix A, Table A-2, which require Confirmatory Sampling (CS) at this time;
- II.A.3. The SWMUs and AOCs identified in Appendix A, Table A-3, which require a RCRA Facility Investigation (RFI) at this time;
- II.A.4. The SWMUs and AOCs identified in Appendix A, Table A-4, which require Interim Measures (IM) at this time;
- II.A.5. The SWMUs and AOCs identified in Appendix A, Table A-5.a., which require a Corrective Measures Study (CMS) and Appendix A, Table A-5.b., which require a joint RFI/CMS at this time;
- II.A.6. The SWMUs and AOCs identified in Appendix A, Table A-6, which require a Remedy at this time;
- II.A.7. The SWMUs and AOCs identified in Appendix A, Table A-7, which are hazardous waste management units formerly covered and addressed by a Mississippi Department of Environmental Quality (MDEQ) Hazardous Waste Management Permit;
- II.A.8. Any additional SWMUs or AOCs Discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means;
- II.A.9. Any contamination associated with a SWMU or AOC that has migrated and/or is migrating beyond the Facility boundary. The Permittee shall implement Corrective Action beyond the Facility boundary where necessary to protect human health and the environment, unless the Permittee demonstrates to the satisfaction of the EPA that, despite the Permittee's best efforts, as determined by the EPA, the Permittee was unable to obtain the necessary permission to undertake such actions. The Permittee is not relieved of all responsibility to clean up a Release that has migrated beyond the Facility boundary where off-site access is denied. On-site measures to address such Releases will be determined on a case-by-case basis. Assurances of financial responsibility for completion of such off-site Corrective Action shall be required, consistent with Conditions I.D.4. and I.D.5 of this Permit.
- II.B. NEWLY IDENTIFIED SWMUs AND AOCs
(RCRA § 3005(c) and 40 CFR § 270.14(d))
- II.B.1. The Permittee shall notify the EPA in writing, **within fifteen (15) calendar days** of Discovery, of any additional SWMU Discovered under Condition II.A.8.

- II.B.2. Upon notification by the EPA, the Permittee shall prepare and submit to the EPA, **within ninety (90) calendar days** of notification, a SWMU Assessment Report (SAR) for each SWMU identified under Condition II.B.1. At a minimum, the SAR shall provide the following information:
- i. Location of the unit(s) on a topographic map of appropriate scale such as required under 40 CFR § 270.14(b)(19);
 - ii. Designation of type and function of the unit(s);
 - iii. General dimensions, capacities and structural description of the unit(s) (supply any available plans/drawings);
 - iv. Dates that the unit(s) was operated;
 - v. Specification of all wastes that have been managed at/in the unit(s) to the extent available. Include any available data on Hazardous Constituents in the wastes; and
 - vi. All available information pertaining to any Release of Hazardous Waste or Hazardous Constituents from such unit(s) (to include groundwater data, soil analyses, air, and/or surface water data).
- II.B.3. The EPA will determine the need for further investigations or Interim Measures at the SWMUs identified under Condition II.B.1. If the EPA determines that such investigations are needed, or Interim Measures are required, the Permittee shall be required to prepare a plan for such investigations or Interim Measures as outlined in Condition II.D.1.b., Condition II.E.1.b., or Condition II.F.1.b.
- II.B.4. The Permittee shall notify the EPA in writing, **within fifteen (15) calendar days** of Discovery, of any suspected new AOC as Discovered under Condition II.A.8. The notification shall include, at a minimum, the location of the AOC and all available information pertaining to the nature of the Release (*e.g.*, media affected, Hazardous Constituents released, magnitude of Release, etc.). The EPA may conduct, or require the Permittee to conduct, further assessment (*i.e.*, Confirmatory Sampling as outlined in Condition II.D.) in order to determine the status of the suspected AOC. The EPA will notify the Permittee in writing of the final determination as to the status of the suspected AOC. If the EPA determines that further investigation of an AOC is required, the Permittee shall be required to prepare a plan for such investigation or Interim Measures as outlined in Condition II.D.1.b., Condition II.E.1.b., or Condition II.F.1.b.
- II.B.5. If the EPA Discovers a new SWMU or AOC, then the EPA will notify the Permittee in writing and may trigger a SAR pursuant to Condition II.B.2., additional investigation pursuant to Condition II.D.1.b. or Condition II.E.1.b., or Interim Measures pursuant to Condition II.F.1.b., as appropriate.
- II.C. NEWLY DISCOVERED RELEASES FROM SWMUs or AOCs
- II.C.1. The Permittee shall notify the EPA in writing of any newly Discovered Release(s) of Hazardous Waste or Hazardous Constituents Discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means, **within fifteen (15) calendar days** of Discovery. Such newly Discovered Releases may be from SWMUs or AOCs identified in Condition II.A., or newly identified SWMUs or AOCs per Condition II.B.

II.C.2. If the EPA determines that further investigation of the Releases is needed, or Interim Measures are required, the Permittee shall be required to prepare a plan for such investigations or Interim Measures as outlined in Condition II.D.1.b., Condition II.E.1.b., or Condition II.F.1.b.

II.D. CONFIRMATORY SAMPLING (CS)

The 2002 Confirmatory Sampling Program Report documents the CS activities previously conducted at six (6) SWMUs and five (5) AOCs. Several of these SWMUs and AOCs that underwent CS were found to require no further action and, therefore, are identified in Appendix A, Table A-1 of this Permit. Other SWMUs and AOCs that underwent CS require a joint RFI/CMS and a Remedy under this Permit (see Condition II.G.3., Condition II.H, and Appendix A, Table A-5.b. and Table A-6 of this Permit).

If additional CS is required for new or existing SWMUs or AOCs, the provisions of this Condition II.D. shall apply.

II.D.1. CS Work Plan(s)

I.D.1.a. The Permittee shall prepare and submit a CS Work Plan for each SWMU or AOC identified under Condition II.A.2. (also see Table A-2) for which CS is required but has not yet been implemented. The CS Work Plan shall be submitted **within forty-five (45) calendar days** from the effective date of this Permit.

If a CS Work Plan has already been submitted for any SWMUs or AOCs, then Condition II.D.1.d. and beyond govern approval and implementation of the CS requirements for those units. If a CS Work Plan for any SWMUs or AOCs has already been approved by the EPA, then Condition II.D.2. and beyond govern implementation of the CS requirements for those units.

II.D.1.b. Upon notification by the EPA, the Permittee shall prepare and submit a CS Work Plan for new SWMUs, suspected AOCs, or newly identified Releases per Conditions II.B.3., II.B.4., II.B.5., II.C.2., or II.C.3. The work plan shall be submitted **within forty-five (45) calendar days** of notification by the EPA that a CS Work Plan is required.

II.D.1.c. The CS Work Plan(s) shall include, at a minimum: the CS objectives and procedures for determining whether or not a Release has occurred (including any designs, plans, or specifications), schedules for implementation, any applicable Quality Assurance Project Plans (QAPP), and any additional work plan section deemed necessary by the EPA. In order to partly or wholly satisfy the CS requirement, previously existing data may be submitted with the CS Work Plan for the EPA's consideration.

II.D.1.d. The CS Work Plan must be approved by the EPA in accordance with Condition II.M. prior to implementation.

II.D.2. CS Implementation

The Permittee shall implement the CS in accordance with the approved CS Work Plan. If requested by the EPA, the Permittee shall notify the EPA **at least twenty (20) calendar days** prior to any sampling activity.

II.D.3. CS Report(s)

II.D.3.a. The Permittee shall prepare and submit to the EPA, in accordance with the schedule in the approved CS Work Plan, a CS Report summarizing, at a minimum, the CS activities and findings, raw data, data analysis and evaluation (including data comparison of collected data with appropriate Screening Levels), and summary and Release determination. If submission of the CS Report coincides with submission of the RCRA Facility Investigation (RFI) Report (Condition II.E.3.), then the CS Report and the RFI Report may be combined into one submission at the discretion of the EPA.

II.D.3.b. The EPA will either approve or disapprove the CS Report in accordance with Condition II.M. Based on the results of the CS Report, the EPA will determine the need for further investigations, or Interim Measures, at the SWMUs or AOCs covered in the CS Report. If the EPA determines that such investigations are needed, or Interim Measures are required, the Permittee shall be required to prepare a plan for such investigations or Interim Measures as outlined in Condition II.E.1.b. or Condition II.F.1.b. The EPA will notify the Permittee of any no further action decision(s).

II.D.4. CS Progress Reports

If the time required to conduct the CS is greater than one hundred eighty (180) calendar days, the Permittee shall provide the EPA with quarterly CS Progress Reports (90 calendar-day intervals) **beginning ninety (90) calendar days** from the start date specified by the EPA in the CS Work Plan approval letter. The CS Progress Reports shall contain the following information, at a minimum:

- i. A description of the portion of the CS completed;
- ii. Summaries of findings;
- iii. Summaries of any deviations from the approved CS Work Plan during the reporting period;
- iv. Summaries of any significant contacts with local community public interest groups or State government;
- v. Summaries of any problems or potential problems encountered during the reporting period;
- vi. Actions taken to rectify problems;
- vii. Changes in relevant personnel;
- viii. Projected work for the next reporting period; and
- ix. Copies of daily reports, inspection reports, data, etc.

II.E. RCRA FACILITY INVESTIGATION (RFI)

The Permittee previously performed an RFI on two (2) SWMUs and four (4) AOCs. One SWMU and one AOC that underwent an RFI were found to require no further action and, therefore, are identified in Appendix A, Table A-1 of this Permit. The other SWMU and

AOCs that underwent an RFI require a joint RFI/CMS and a Remedy under this Permit (see Condition II.G.3., Condition II.H., and Appendix A, Table A-5.b. of this Permit).

II.E.1. RFI Work Plan(s)

- II.E.1.a. The Permittee shall prepare and submit an RFI Work Plan for each SWMU or AOC identified under Condition II.A.3. (also see Table A-3) for which an RFI is required but has not yet been implemented. The RFI Work Plan shall be submitted to the EPA **within ninety (90) calendar days** from the effective date of this Permit.

If an RFI Work Plan has already been submitted for any SWMUs or AOCs, then Condition II.E.1.d. and beyond govern approval and implementation of the RFI requirements for those units. If an RFI Work Plan for any SWMUs or AOCs has already been approved by the EPA, then Condition II.E.2. and beyond govern implementation of the RFI requirements for those units.

- II.E.1.b. The Permittee shall prepare and submit to the EPA, **within ninety (90) calendar days** of notification by the EPA, an RFI Work Plan for those units identified under Conditions II.B.2., II.B.3., II.B.4., II.B.5., II.C.2., II.C.3., and/or II.D.
- II.E.1.c. The RFI Work Plan(s) shall meet the requirements as specified in Appendix B of this Permit unless otherwise directed by the EPA. The Permittee shall provide sufficient written justification for any omissions or deviations from the minimum requirements of Appendix B. Such omissions or deviations shall be subject to the approval of the EPA.
- II.E.1.d. The RFI Work Plan must be approved by the EPA, in accordance with Condition II.M. prior to implementation.

II.E.2. RFI Implementation

The Permittee shall implement the RFI in accordance with the approved RFI Work Plan. If requested by the EPA, the Permittee shall notify the EPA **at least twenty (20) calendar days** prior to any sampling activity.

II.E.3. RFI Report(s)

- II.E.3.a. The Permittee shall prepare and submit to the EPA an RFI Report for the investigations conducted pursuant to the approved RFI Work Plan. The RFI Report shall be submitted to the EPA for review in accordance with the schedule in the approved RFI Work Plan. At a minimum, the RFI Report shall meet the requirements as specified in Appendix B of this Permit, unless otherwise directed by the EPA.
- II.E.3.b. The Permittee shall submit to the EPA, along with the RFI Report, Screening Levels based on the latest EPA guidance, or as otherwise directed by the EPA, for each of the Hazardous Constituents reported in Condition II.E.3.a.
- II.E.3.c. The EPA will either approve or disapprove the RFI Report in accordance with Condition II.M. Based on the results of the RFI Report, the EPA will determine the need for further investigations, Interim Measures, or a CMS for the SWMUs or AOCs covered by the RFI Report. If the EPA determines that such investigations are needed, or Interim Measures are

required, the Permittee shall submit a plan for such investigations or Interim Measures as outlined in Condition II.E.1.b. or Condition II.F.1.b. If a CMS is required, the Permittee shall prepare and submit such CMS in accordance with Condition II.G.1.b. The EPA will notify the Permittee of any no further action decision.

II.E.4. RFI Progress Reports

If the time required to conduct the RFI is greater than one hundred eighty (180) calendar days, the Permittee shall provide the EPA with quarterly RFI Progress Reports (90-calendar day intervals) **beginning ninety (90) calendar days** from the start date specified by the EPA in the RFI Work Plan approval letter. The RFI Progress Reports shall contain the following information at a minimum:

- i. A description of the portion of the RFI completed;
- ii. Summaries of findings;
- iii. Summaries of any deviations from the approved RFI Work Plan during the reporting period;
- iv. Summaries of any significant contacts with local community public interest groups or State government;
- v. Summaries of any problems or potential problems encountered during the reporting period;
- vi. Actions taken to rectify problems;
- vii. Changes in relevant personnel;
- viii. Projected work for the next reporting period; and
- ix. Copies of daily reports, inspection reports, data, etc.

II.F. INTERIM MEASURES (IM)

The Permittee has implemented various IMs at the Facility. The 2014 HSWA Permit incorporated the IMs completed at the Facility by that time into the Remedy selected in 2014. Subsequently, the Permittee installed a vapor intrusion mitigation system at the Facility's existing structure as an additional IM. This Permit requires the continued operation and maintenance of the vapor intrusion mitigation system, pursuant to the Permittee's Operation, Maintenance, and Monitoring Plan dated March 20, 2020, as an IM at the Facility. No additional IMs are being required with this Permit. If any future IMs are required by the EPA, the provisions of this Condition II.F. shall apply.

II.F.1. IM Work Plan(s)

- II.F.1.a. The Permittee shall prepare and submit an IM Work Plan for each SWMU or AOC identified under Condition II.A.4. (also see Table A-4) for which IM are required but have not yet been implemented. The IM Work Plan(s) shall be submitted to the EPA **within thirty (30) calendar days** of the effective date of this Permit.

If an IM Work Plan has already been submitted for any SWMUs or AOCs, then Condition II.F.1.d. and beyond govern approval and implementation of the IM requirements for those units. If an IM Work Plan for any SWMUs or AOCs has already been approved by the EPA, then Condition II.F.2. and beyond govern implementation of the IM requirements for those units.

- II.F.1.b. Upon notification by the EPA, the Permittee shall prepare and submit an IM Work Plan for any SWMU or AOC for which the EPA determines IM are required. The IM Work Plan shall be submitted **within thirty (30) calendar days** of such notification. Such IM may be conducted concurrently with any requirements under the terms of this Permit.
- II.F.1.c. The IM Work Plan shall ensure that the IM are designed to mitigate any current or potential threat(s) to human health or the environment and are consistent with and integrated into any long-term Corrective Measures selected as part of the Remedy for the Facility. The IM Work Plan shall include, at a minimum: the IM objectives, procedures for implementation (including any designs, plans, or specifications), schedules for implementation, any applicable QAPP, and any additional work plan section deemed necessary by the EPA.
- II.F.1.d. The IM Work Plan imposed under Conditions II.F.1.a. or II.F.1.b. must be approved by the EPA in accordance with Condition II.M. prior to implementation.
- II.F.1.e. The Permittee may initiate IM at a SWMU or AOC by submitting the appropriate notification pursuant to Condition I.D.12. The EPA will process Permittee-initiated IM by either conditionally approving the IM or requesting an IM Work Plan per Condition II.F.1.b. Permittee-initiated IM shall be considered conditionally approved unless the EPA specifically requests an IM Work Plan **within thirty (30) calendar days** of receipt of notification of the Permittee-initiated IM. The scope and success of Permittee-initiated IM conditionally approved per this Condition II.F.1.e. shall be subject to subsequent in-depth review. Permittee-initiated IM must follow the progress and final reporting requirements of Condition II.F.3.
- II.F.2. IM Implementation
- II.F.2.a. The Permittee shall implement the IM imposed under Conditions II.F.1.a. or II.F.1.b. in accordance with the approved IM Work Plan(s).
- II.F.2.b. The Permittee shall give notice to the EPA as soon as possible of any planned changes, reductions, or additions to the IM Work Plan imposed under Conditions II.F.1.a. or II.F.1.b., or IM initiated by the Permittee under Condition II.F.1.e.
- II.F.3. IM Report(s)
- II.F.3.a. The Permittee shall prepare and submit to the EPA an IM Report **within ninety (90) calendar days** of completion of any IM conducted under this Permit. The IM Report shall contain the following information at a minimum:
- i. A description of IM implemented;
 - ii. Summaries of results;
 - iii. Summaries of all problems encountered;
 - iv. Summaries of accomplishments and/or effectiveness of IM; and
 - v. Copies of all relevant laboratory/monitoring data, etc. in accordance with Condition I.D.11.
- II.F.3.b. The EPA will either approve or disapprove the IM Report in accordance with Condition II.M. Based on the results of the IM Report, the EPA will determine the need for further

investigations, additional Interim Measures, or a CMS for the SWMUs or AOCs covered in the IM Report. If the EPA determines that such investigations or additional Interim Measures are needed, the Permittee shall submit a plan for such investigations or Interim Measures as outlined in Condition II.E.1.b. or Condition II.F.1.b. If a CMS is required, the Permittee shall prepare and submit such CMS in accordance with Condition II.G.1.b. Any completed Interim Measures could be included as part of any future Remedy selected in accordance with Condition II.K.2. or could form the basis for a no further action decision.

II.F.4. IM Progress Reports

If the time required for completion of IM imposed under Conditions II.F.1.a. or II.F.1.b., or implemented under Condition II.F.1.e., is greater than one year, the Permittee shall provide the EPA with progress reports at intervals specified in the approved IM Work Plan or, for Permittee-initiated IM without an approved IM Work Plan, at six (6) month intervals starting one hundred and eighty (180) calendar days after initiating IM. Such IM Progress Reports shall contain the following information at a minimum:

- i. A description of the portion of the IM completed;
- ii. Summaries of findings;
- iii. Summaries of any deviations from the IM Work Plan during the reporting period;
- iv. Summaries of any problems or potential problems encountered during the reporting period; and
- v. Projected work for the next reporting period.

II.G. CORRECTIVE MEASURES STUDY (CMS)

In the 2011 Revised CMS Report, the Permittee proposed Corrective Measures and “Target Cleanup Standards” (as defined in Table 3-1 of the 2011 Revised CMS Report) for remediation of contamination at the Facility. Monitored natural attenuation of groundwater was selected as part of the Remedy in the 2014 HSWA Permit based on a review of the 2011 Revised CMS Report.

With this Permit, a joint RFI/CMS is being required, pursuant to Condition II.G.3., because the EPA has concerns about the effectiveness of monitored natural attenuation in achieving progress towards “Target Cleanup Standards” as defined in the 2011 Revised CMS Report. The requirements for a joint RFI/CMS are further described in Appendix A, Table A-5.b. of this Permit. The purpose of the joint RFI/CMS is to evaluate whether additional remedial options are appropriate for the existing SWMUs and AOCs listed in Appendix A, Table A-6.

II.G.1. CMS

- II.G.1.a. The Permittee shall prepare and submit to the EPA a CMS for each SWMU or AOC identified under Condition II.A.5. (also see Table A-5.a.) for which a CMS is required but has not yet been implemented. The CMS shall be submitted to the EPA **within ninety (90) calendar days** of the effective date of this Permit.

If a CMS has already been submitted for any SWMUs or AOCs, then Condition II.G.1.d. and beyond govern approval of the CMS for those units.

- II.G.1.b. The Permittee shall prepare and submit to the EPA, **within ninety (90) calendar days** of notification by the EPA, a CMS for those SWMUs and AOCs where Hazardous Constituents exceed applicable Screening Levels, including background if appropriate.
- II.G.1.c. The CMS shall address the elements listed in Appendix C of this Permit, at a minimum. The Permittee must provide sufficient justification and/or documentation for any omissions or deviations from the elements listed in Appendix C. The CMS shall include, as needed, schedules of implementation and completion of specific actions necessary to complete the Corrective Measures evaluation (e.g. bench studies, pilot tests, etc.).
- II.G.1.d. The EPA will either approve or disapprove the CMS in accordance with Condition II.M. Based on the results of the CMS, the EPA will select a final Remedy in accordance with Condition II.K.2.
- II.G.2. For a CMS pursued under Condition II.G.1., the Permittee may seek approval from the EPA for joint or concurrent RFI/CMS. The CMS may be performed concurrently with the RFI process if the EPA determines that sufficient investigative details are available to allow concurrent action.

II.G.3. Joint or Concurrent RFI/CMS

The Permittee shall prepare and submit to the EPA a joint or concurrent RFI/CMS, streamlined for each SWMU or AOC identified in Condition II.A.5. (also see Table A-5.b.). A proposal for the RFI/CMS, including a schedule for any work, shall be submitted to the EPA **within ninety (90) calendar days** of the effective date of this Permit for review by the EPA in accordance with Condition II.M. The RFI/CMS shall be developed to meet the requirements of Condition II.G.1.c. and Conditions II.E.1.c. through II.E.3., as appropriate. Omissions or deviations from the minimum requirements in Appendix B or Appendix C shall be subject to the approval of the EPA. The emphasis of the initial joint RFI/CMS submission will be on identification of recommended Corrective Measures and identification of any data gaps needed to adequately determine the scope and extent of the Corrective Measures evaluation. A final report on the RFI/CMS must be submitted to the EPA in accordance with the approved schedule and must be reviewed pursuant to Condition II.M.

II.H. SELECTED REMEDY

In the 2014 HSWA Permit, the EPA selected a Remedy for the SWMUs and AOCs identified in Condition II.A.6. and Appendix A, Table A-6. The Remedy under the 2014 HSWA Permit consisted of monitored natural attenuation of contaminated groundwater, a Site Management Plan to control subsurface activities, Facility maintenance and inspection requirements, and an Environmental Covenant. This Permit requires the Permittee to continue the Remedy selected in the 2014 HSWA Permit, including periodic monitoring and reporting of groundwater quality.

However, because the EPA has concerns about the effectiveness of monitored natural attenuation as part of the Remedy, the EPA is also requiring the Permittee to conduct a joint RFI/CMS pursuant to Condition II.G.3. and Appendix A, Table A-5.b., while continuing to implement the Remedy selected in the 2014 HSWA Permit. The joint RFI/CMS conducted pursuant to this Permit will be used to evaluate whether additional

remedial options are appropriate for the SWMUs or AOCs listed in Appendix A, Table A-6., and the adequacy of the Remedy under the 2014 HSWA Permit. If modifications to the Remedy are found to be appropriate based on the joint RFI/CMS, the EPA will propose such modifications to the Remedy in a proposed modification or renewal of this Permit and allow for public review and comment.

II.H.1. The selected Remedy for the SWMUs and AOCs identified in Condition II.A.6. and Appendix A, Table A-6 (List of SWMUs and AOCs requiring a Remedy) shall consist of the following site-wide Corrective Measures: monitored natural attenuation of contaminated groundwater, the implementation of an EPA-approved Site Management Plan (SMP) to control subsurface activities, Environmental Covenants meeting the requirements of Condition II.I.5. for the Blazer Property and the portion of the Facility owned by Jaxon Energy LLC, and Facility maintenance and inspection requirements, all as further set out in Appendix E of this Permit.

II.H.2. The Permittee shall submit to the EPA proposed drafts of the Environmental Covenants required by Condition II.H.1. and Condition II.I.5. within **sixty (60) calendar days** of the effective date of this Permit. The Environmental Covenants required by this Permit must be reviewed and approved by the EPA in accordance with Condition II.M.

II.I. INSTITUTIONAL CONTROLS (ICs)

This Permit maintains the requirement from the 2014 HSWA Permit for an Environmental Covenant on the portion of the Facility property owned by Jaxon Energy LLC as part of the Remedy in accordance with Condition II.I.5., Table A-6. of Appendix A, and Appendix E of this Permit. Because the Blazer Property has been acquired by Blazer Properties LLC, a subsidiary of Ashland Inc., this Permit also requires an Environmental Covenant meeting the foregoing requirements for the Blazer Property. The joint RFI/CMS required by this Permit shall incorporate the Environmental Covenants as a component of the remedial alternatives being evaluated. If additional ICs are required as part of a future revision of the Remedy at the Facility, the selection of such ICs shall comply with this Condition II.I.

II.I.1. The Permittee is required to consider institutional or other appropriate non-engineering controls for protection of human health and the environment from contamination left in place at any SWMUs or AOCs. Among the ICs to be considered is an Environmental Covenant.

II.I.2. ICs may be used at any time during the Corrective Action process, including as part of Interim Measures or a final Remedy. ICs should be implemented prior to termination of this Permit. ICs that are approved as part of a final Remedy shall survive the termination of this Permit.

II.I.3. ICs may be placed upon the Facility or on any specifically identified area of SWMUs or AOCs. ICs may restrict the use of the property covered by such ICs to commercial and/or industrial land use, as those terms are currently defined, or may be defined in the future, by zoning ordinance(s) of the city, county or any other local governmental entity with jurisdiction and authority to regulate land use at the property.

II.I.4. Any ICs required as part of this Permit will be identified in Condition II.H. (also see Appendix E) or as part of an Interim Measures work plan or report.

II.I.5. Environmental Covenant

II.I.5.a. An Environmental Covenant meeting the requirements of this Condition II.I.5. and Appendix E is included as part of the Remedy under this Permit (see Condition II.H.). Such Environmental Covenant shall run with the land and be binding upon all current and future owners of the Facility, and all successors and assigns of the Facility, or any portion of the Facility, including any leasehold interests at the Facility or any portion of the Facility, unless and until the restrictions set forth therein are amended in writing by the owner, its successors or assigns, and approved in writing by the EPA or the State of Mississippi.

II.I.5.b. Compliance with any Environmental Covenant required by this Permit may be enforced by a legal or equitable action brought in a court of competent jurisdiction by or on behalf of one or more of the following parties: (i) the EPA; (ii) the State of Mississippi; or (iii) any local government entity with the jurisdiction and legal authority to regulate land use at the Facility. Delay or failure on the part of any of the foregoing parties to take any action to enforce compliance with the Environmental Covenant or land use restrictions shall not bar any subsequent enforcement with respect to the failure of compliance in question, nor shall any delay or failure on the part of any of the foregoing parties to take any action to enforce compliance with the Environmental Covenant be deemed a waiver of the right of any such party to take any such action with respect to any failure of compliance.

II.I.5.c. If any one or more provisions of any Environmental Covenant required by this Permit shall be found to be unenforceable in any respect, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

II.J. CORRECTIVE MEASURES IMPLEMENTATION (CMI)

The Permittee shall continue to implement the Remedy in accordance with this Condition II.J. and the Permittee's 2012 CMI Plan, or any amendments or updates to such plan as are approved by the EPA, in accordance with Condition II.J.1.c. of this Permit.

I.J.1. CMI Work Plan(s)

II.J.1.a. The Permittee shall prepare and submit a CMI Work Plan for each SWMU or AOC identified under Condition II.A.6. (also see Table A-6) for which a Remedy is required but has not yet been implemented. The CMI Work Plan shall be submitted to the EPA **within thirty (30) calendar days** of the effective date of this Permit or a permit modification selecting a Remedy.

If a CMI Work Plan has already been submitted for any SWMUs or AOCs, then Condition II.J.1.c. and beyond govern approval and implementation of the CMI requirements for those units. If a CMI Work Plan for any SWMUs or AOCs has already been approved by the EPA, then Condition II.J.2. and beyond govern implementation of the CMI requirements for those units.

II.J.1.b. The CMI Work Plan shall include the following, at a minimum:

- i. A description of the conceptual design, technical features (e.g., plans and specifications) and a construction plan for the selected Remedy(ies) as necessary to meet the Remedy Performance Standards set forth in Appendix C;
- ii. A proposed schedule that takes into account all phases of the CMI. The schedule should also include the submittal of documents to support or document the CMI (e.g., operation and maintenance plan/effectiveness reports, construction completion report); and
- iii. Requirements for removal and decontamination of units, equipment, devices, and structures that will be used to implement the Remedy(ies).

II.J.1.c. The CMI Work Plan(s) must be approved by the EPA in accordance with Condition II.M. prior to implementation.

II.J.2. CMI Implementation

The Permittee shall implement the Remedy in accordance with the approved CMI Work Plan.

II.J.3. Cost Estimate and Financial Assurance

Consistent with Conditions I.D.4. and I.D.5., **within one hundred and twenty (120) calendar days** after a Remedy is identified in Condition II.H. by permit renewal or modification, the Permittee shall prepare and submit cost estimates and demonstrate financial assurance, respectively, for the Remedy selected under Condition II.H. Thereafter, the Permittee shall review the Remedy cost estimates and adjustments to the financial instrument **annually**, as provided in Condition I.D.4.c.

II.J.4. CMI Report(s)

II.J.4.a. Once the Permittee has completed the physical construction of all required components of the selected Remedy identified in Condition II.H., including the construction of any engineering controls, and the execution of all required ICs, the Permittee shall submit a CMI Construction Completion Report. At a minimum, this CMI Construction Completion Report shall state that the only actions remaining are operation, maintenance, and/or monitoring of the Corrective Measures required as part of Remedy, including compliance with and maintenance of any required engineering controls or ICs.

II.J.4.b. The Permittee shall submit to the EPA Corrective Measures Implementation and Effectiveness Reports pursuant to the schedule contained in the approved CMI Work Plan. If the CMI Work Plan fails to identify a schedule for report submission, then the report shall be submitted **annually** unless or until a change is agreed to by the EPA.

II.J.4.c. Once all of the Remedy Performance Standards (see Appendix C) for the Remedy identified in Condition II.H. (also see Appendix E) have been attained and all that remains is compliance with and maintenance of any engineering controls or ICs, the Permittee shall submit, as part of the Corrective Measures Implementation and Effectiveness Report, or separately, a Remedy Performance Standards Attained Report. At a minimum, this Report shall state that the Remedy has achieved the Remedy Performance Standards for all active remediation systems and identify whether long-term maintenance is needed for any passive

engineering controls (e.g., cap, fence) or ICs. The EPA will review and make a final decision on the report after public comment, if needed. If appropriate, the Permittee may request termination of Corrective Action and the Permit pursuant to the permit modification procedures set forth in Condition II.K.3.

- II.J.4.d. If the Permittee's Corrective Measures Implementation and Effectiveness Report concludes that the selected Remedy is incapable of attaining the Remedy Performance Standards set forth in Appendix C, then **within ninety (90) calendar days** of submission of such Report, the Permittee shall submit a revised CMS, pursuant to Condition II.G., that concludes with recommended alternate Corrective Measures.
- II.J.4.e. If the EPA's review of the Permittee's Corrective Measures Implementation and Effectiveness Report finds that the selected Remedy is incapable of attaining the Remedy Performance Standards set forth in Appendix C, then **within ninety (90) calendar days** of notification by the EPA, the Permittee shall submit a revised CMS, pursuant to Condition II.G., that concludes with recommended alternate Corrective Measures.
- II.J.4.f. The new or revised CMS must be approved in accordance with Conditions II.G. and II.M. and, if warranted, the Permit shall be modified to select a new or revised Remedy in accordance with Condition II.K.2.

II.K. PERMIT MODIFICATION PROCEDURES

II.K.1. General Permit Modification

The Permittee may request a permit modification in accordance with 40 CFR § 270.42. Modifications to the Permit that are initiated and finalized by the EPA will be in accordance with the applicable provisions of 40 CFR § 270.41.

II.K.2. Modification Procedures Specific to Remedy Selection

- II.K.2.a. Pursuant to 40 CFR § 270.41, and after a Remedy recommendation has been identified and accepted under Condition II.G.1.d., a permit modification may be initiated by the EPA. This modification will serve to incorporate the selected Remedy (see Condition II.H.), including a CAMU if necessary, and implementation schedules (see Condition II.J.), into this Permit. The EPA will provide the public an opportunity to review and comment on the Statement of Basis and the permit modification during a public comment period. A Remedy may also be proposed by the EPA during a permit renewal. No further action determinations on any SWMUs and AOCs may be noted during either a permit modification or permit renewal for Remedy selection.
- II.K.2.b. Following the public comment period referenced in Condition II.K.2.a., the EPA will select the Remedy, revise the Remedy in response to public comments, or require the Permittee to revise the CMS and/or perform an additional CMS. After the public comment period ends, the EPA will notify the Permittee and commenting public of the final Remedy in a Final Decision and Response to Comments (FDRTC).

II.K.3. Modification Procedures Specific to Termination of Corrective Action and/or the Permit

- II.K.3.a. Corrective Action shall be considered complete, either with or without controls in place,

and the Permit eligible for termination, when all active remediation and any applicable Facility-Specific Corrective Measures Objectives specified in the Permit have been completed and all obligations have been met with respect to SWMU or AOC compliance with 40 CFR § 264.101.

- II.K.3.b. Upon completion of Corrective Action for the entire Facility, the Permittee may reference the Remedy Performance Standards Attained Report submitted pursuant to Condition II.J.4.c. and submit a request for the EPA to determine if termination of the Permit is possible because Corrective Action has been completed in accordance with the requirements set forth by the EPA. The EPA shall be the sole decider on whether the Permit must remain in place to maintain or enforce any remaining secure any long-term maintenance/operation of passive engineering controls (e.g., caps, soil covers, fences) or ICs.
- II.K.3.c. If the request submitted pursuant to Condition II.K.3.b. is found by the EPA to be timely and appropriate (*i.e.* the EPA determines that Corrective Action has been completed in accordance with the terms and conditions of this Permit and there is no need to keep the Permit in place to maintain or enforce any long-term maintenance/operation of passive engineering controls (*e.g.*, caps, soil covers, fences)), then the EPA will identify and notify the Permittee which of the following two procedures will be utilized to public notice the change in expiration date of the Permit to allow for permit termination:
- i. Permittee-initiated Class 3 modification as set forth in 40 CFR § 270.42; or
 - ii. Agency-initiated modification as set forth in 40 CFR § 270.41.
- II.K.3.d. Upon termination of the Permit, the EPA will release the Permittee from the financial assurance requirements of this Permit (see Condition I.D.5.).
- II.L. WORK PLAN AND REPORT REQUIREMENTS
- II.L.1. All work plans and schedules shall be subject to written approval by the EPA prior to implementation to assure that such work plans and schedules are consistent with the requirements of this Permit and with applicable regulations. Any approved schedule of implementation contained in any work plan, addendum, or additional phases will be incorporated into the Permit. The Permittee shall revise all submissions and schedules as specified by the EPA as set forth in Condition II.M. Upon approval, the Permittee shall implement all work plans and schedules as written.
- II.L.2. All work plans and reports shall be submitted in accordance with the approved schedule. Extensions of the due date for submissions may be granted by the EPA based on the Permittee's demonstration that sufficient justification for the extension exists. Such extensions shall not require a permit modification.
- II.L.3. If the Permittee or the EPA at any time determines that the SAR information required under Condition II.B., the CS Work Plan(s) under Condition II.D., the RFI Work Plan(s) required under Condition II.E., the IM Work Plan(s) required under Condition II.F., or the CMI Work Plan under Condition II.J. no longer satisfy the requirements of 40 CFR § 264.101 or this Permit for prior or continuing Releases of Hazardous Waste or Hazardous Constituents from SWMUs and/or AOCs, the Permittee shall submit an

amended Work Plan(s) to the EPA **within ninety (90) calendar days** of such determination.

- II.L.4. An electronic version of all reports and work plans shall be provided by the Permittee to the currently assigned EPA project manager. As determined by the EPA, hard copies may also be required. Any required hard copies shall be submitted in care of the RCRA Corrective Action Section Chief at the following address:

U.S. Environmental Protection Agency, Region 4
Attn: Chief, RCRA Corrective Action Section
RCRA Programs and Cleanup Branch
Land, Chemicals and Redevelopment Division
61 Forsyth Street, SW
Atlanta, Georgia 30303

- II.L.5. An electronic version of all final Corrective Action reports and work plans shall be provided by the Permittee to the Hazardous Waste Branch of MDEQ by way of the following email address: MSHazardousWasteProgram@mdeq.ms.gov.

II.M. APPROVAL/DISAPPROVAL OF SUBMISSIONS

The EPA will review all work plans, reports, schedules, and other documents (“submissions”) which require the EPA's approval in accordance with the conditions of this Permit. The EPA will notify the Permittee in writing of any submission that is disapproved, and the basis therefore. If the EPA disapproves any submission (e.g., work plan, report) required under this Permit, the EPA will either: (1) notify the Permittee in writing of the submission's deficiencies and specify a due date for submission of a revised document; (2) revise the submission and notify the Permittee of the revisions; or (3) conditionally approve the submission and notify the Permittee of the conditions. As needed, the EPA will specify the start date of the work plan schedule in the letter approving the work plan. Any EPA-revised or modified submission becomes the final, approved submission to be implemented by the Permittee.

II.N. DISPUTE RESOLUTION

- II.N.1. Condition II.N. shall apply only to submissions that have been disapproved and revised by the EPA, or that have been disapproved by the EPA, then revised and resubmitted by the Permittee, and again disapproved by the EPA.

Notwithstanding any other provision in this Permit, in the event the Permittee disagrees, in whole or in part, with the EPA's revision of a submission or disapproval of any revised submission required by the Permit, and decides to invoke dispute resolution under this Condition II.N., the following shall apply:

- II.N.2. In the event that the Permittee chooses to invoke the provisions of this Condition II.N., the Permittee shall notify the EPA in writing **within thirty (30) calendar days** of receipt of the EPA's revision of a submission or disapproval of a revised submission. Such notice shall set forth the specific matters in dispute, the position the Permittee asserts should be adopted as consistent with the requirements of the Permit, the basis for the Permittee's position, and any matters considered necessary for the EPA's determination.

- II.N.3. The EPA and the Permittee shall have an additional **thirty (30) calendar days** from the EPA's receipt of the notification provided for in Condition II.N.2. to meet or confer to resolve any disagreement.
- II.N.4. In the event agreement is reached, the Permittee shall comply with the terms of such agreement or, if appropriate, submit the revised submission and implement the same in accordance with and within the time frame specified in such agreement.
- II.N.5. If agreement is not reached **within the thirty (30) calendar day** period, the EPA will notify the Permittee in writing of his/her decision on the dispute, and the Permittee shall comply with the terms and conditions of the EPA's decision in the dispute. For the purposes of this provision in this Permit, the responsibility for making this decision shall not be delegated below the EPA Division Director responsible for this Permit.
- II.N.6. With the exception of those conditions under dispute, the Permittee shall proceed to take any action required by those portions of the submission and of the Permit that the EPA determines are not affected by the dispute.

FIGURES

Figure 1. Facility Location. General Facility property boundary shown by purple dashed-lines labeled “Approximate Subject Property Boundary”.

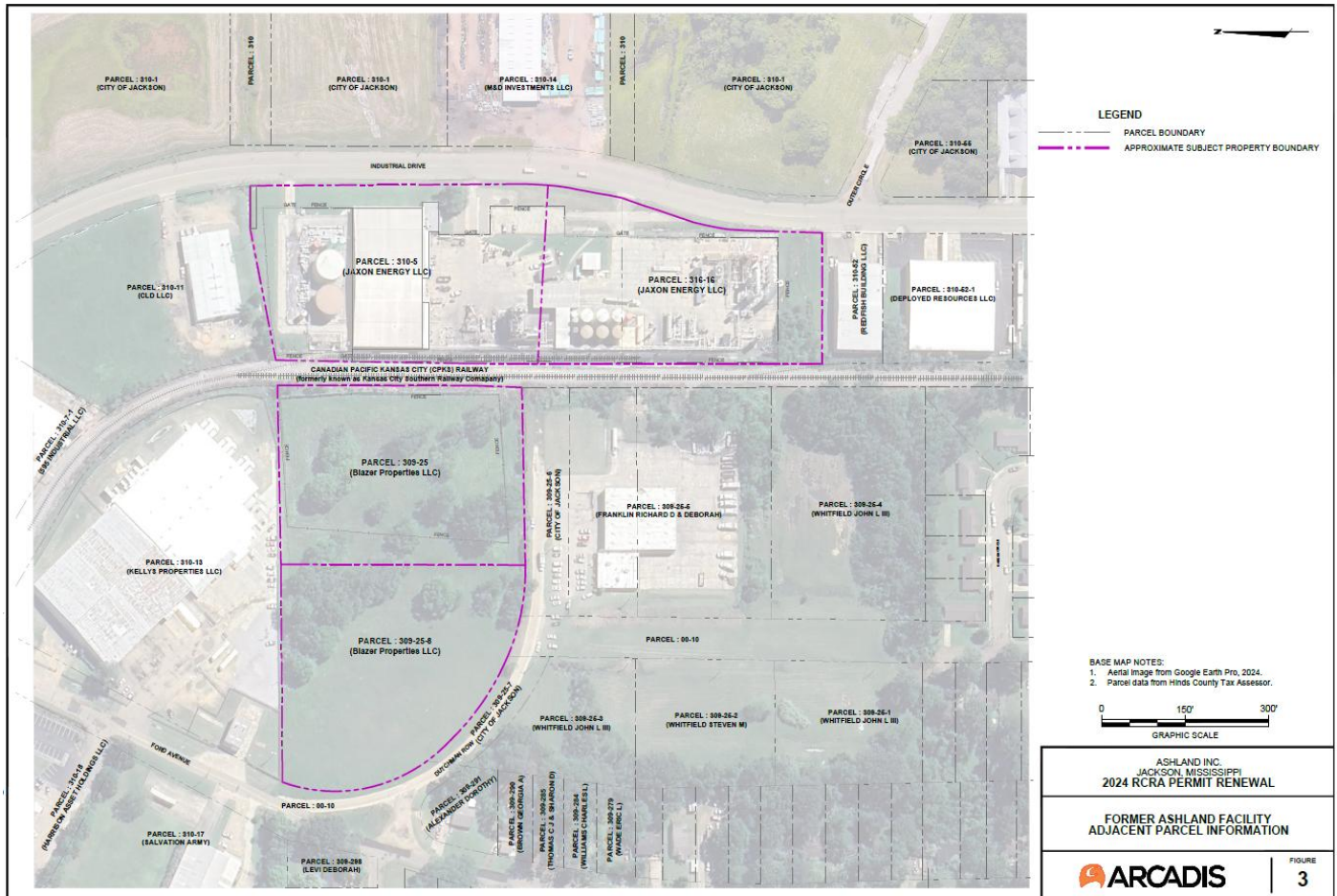
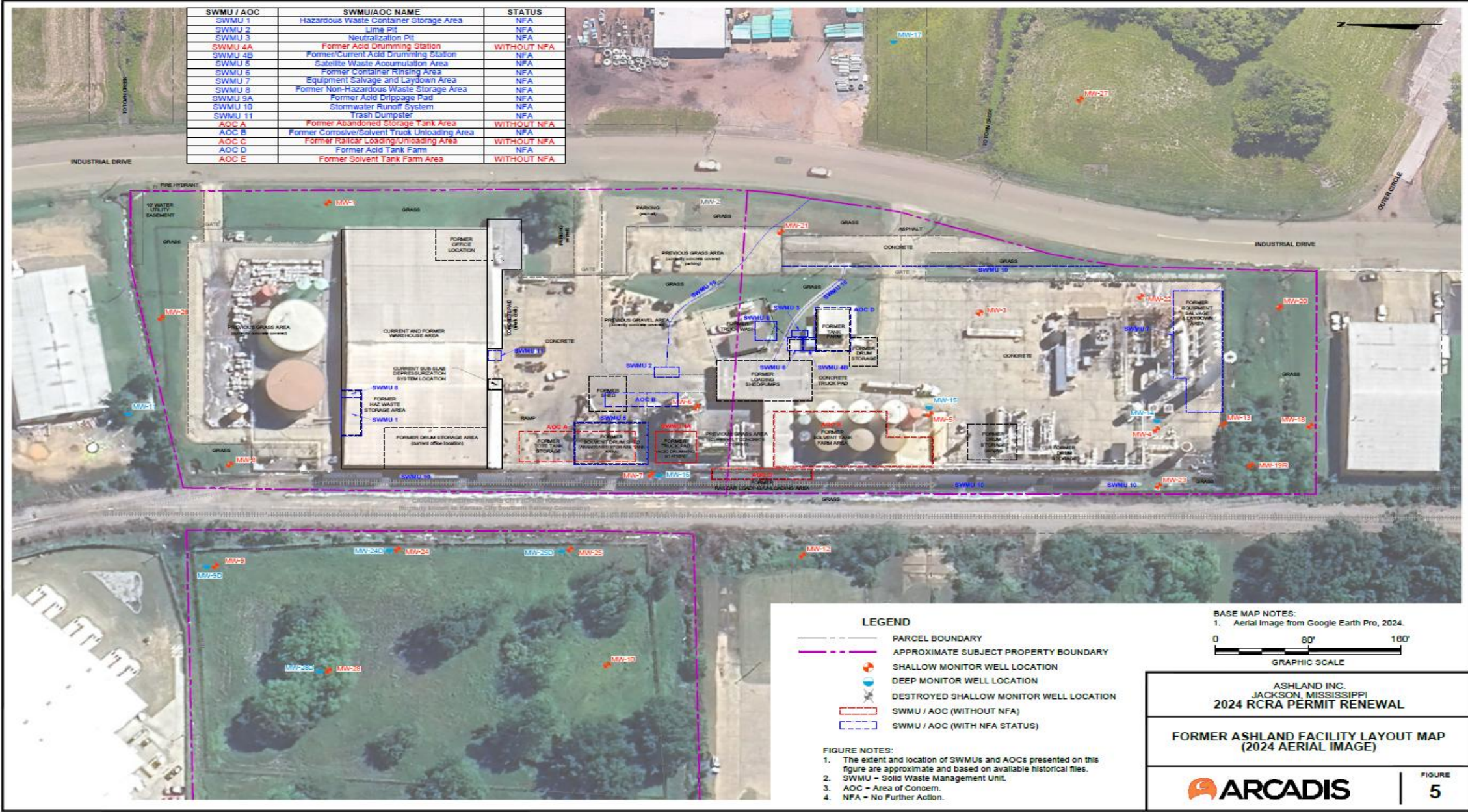


Figure 2. General Location of SWMUs, AOCs, and Monitoring Wells, From the HSWA Permit Application, October 30, 2024.



APPENDICES

APPENDIX A: SOLID WASTE MANAGEMENT UNIT/AREA OF CONCERN SUMMARY

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Table A-1. List of Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) requiring No Further Action (NFA) at this time:			
SWMU/ AOC No.	SWMU/AOC Name	Unit Comment/ Basis for NFA	Potentially Affected Media
SWMU 1	Hazardous Waste Container Storage Area and Non-Hazardous Waste Container Storage Area	Identified as NFA in a 2001 HSWA permit based on information presented in the RCRA Facility Assessment (RFA) Report dated September 22, 1998, and because, at the time, the unit was subject to regulation under a MDEQ Hazardous Waste Management Permit. MDEQ approved closure of the unit on January 24, 2013.	None
SWMU 2	Lime Pit	Part of the 2002 Confirmatory Sampling Program Report. This unit was eliminated as a source of contamination in the RCRA Facility Investigation (RFI).	Soil, groundwater
SWMU 3	Neutralization Pit	Identified as NFA in the 2002 Confirmatory Sampling Program Report	None
SWMU 4B	Acid Drumming Station (Current Acid Drumming Station)	Identified as NFA in a 2001 HSWA permit based on information presented in the RFA.	Soil, groundwater
SWMU 5	Satellite Waste Accumulation Area	Identified as NFA in a 2001 HSWA permit based on information presented in the RFA.	Soil, groundwater
SWMU 6	Former Container Rinsing Area	Identified as NFA in 2002 Confirmatory Sampling Program Report based on a February 13, 2024, EPA RCRA Inspection Report.	Soil, groundwater
SWMU 7	Equipment Salvage and Laydown Area	Identified as NFA in a 2001 HSWA permit based on information presented in the RFA.	None
SWMU 8	Former Non-Hazardous Waste Storage Area	Identified as NFA in a 2001 HSWA permit based on information presented in the RFA.	None
SWMU 9A	Former Acid Drillage Pad	Identified as NFA in the 2002 Confirmatory Sampling Program Report.	None
SWMU 10	Stormwater Runoff System	Identified as NFA in the 2002 Confirmatory Sampling Program Report	None
SWMU 11	Trash Dumpster	Identified as NFA in the 2001 HSWA permit based on information presented in the RFA.	None
AOC B1	Former Truck Loading/Unloading Area	Part of the 2002 Confirmatory Sampling Program. This unit was eliminated as a source of contamination in the RFI.	Soil, groundwater
AOC B2	Corrosive Truck Unloading Pad	Identified as NFA in a 2001 HSWA permit based on information presented in the RFA.	Soil, groundwater
AOC B3	Solvent Truck Loading/Unloading Area	Identified as NFA in a 2001 HSWA permit based on information presented in the RFA..	Soil, groundwater
AOC D	Acid Tank Farm	Identified as NFA in the 2002 Confirmatory Sampling Program Report.	None
Note: In addition to formal closure of SWMU 1 under MDEQ oversight on January 24, 2013, Ashland Inc. ceased all chemical product storage and distribution operations at the Facility in 2009, cleaned and removed all process and storage areas, cleaned all concrete containment areas, and removed all aboveground sources with the potential to impact soils. Therefore, the SWMUs and AOCs listed in this Table A-1. have not been in use since 2009. On February 13, 2024, the EPA conducted a RCRA Compliance Evaluation Inspection at the Facility that identified no further evidence of a Release requiring Corrective Action from these units.			

Table A-2. List of Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) requiring Confirmatory Sampling (CS) at this time:		
SWMU / AOC No.	SWMU/ AOC Name	Unit Comment/ Basis for CS
No SWMUs or AOCs require CS at this time.		

Table A-3. List of Solid Waste /Management Units (SWMUs) and Areas of Concern (AOCs) requiring a RCRA Facility Investigation (RFI) at this time:		
SWMU / AOC No.	SWMU/ AOC Name	Unit Comment/ Basis for RFI
No SWMUs or AOCs require an RFI at this time; however a joint RFI/CMS is required as outlined in Table A-5.b.		

Table A-4. List of Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) requiring Interim Measures at this time:			
Management Area	SWMU/ AOC No.	SWMU/AOC Name	Unit Comment
Groundwater and Soil Management Area (GWSMA) 1	SWMU 4A	Former Acid Drumming Station	This Permit requires continued operation and maintenance of the vapor intrusion (VI) mitigation system pursuant to the Permittee's Operation, Maintenance, and Monitoring Plan dated March, 20 2020, as an Interim Measure at the Facility, as well as annual VI effectiveness sampling, to safeguard onsite workers and confirm indoor air concentrations are below human health risk thresholds.
	AOC A	Abandoned Storage Tank Area	
	AOC C	Railcar Loading/Unloading Area	
	AOC E	Solvent Tank Farm Area	

Table A-5.a. List of Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) requiring a Corrective Measures Study (CMS) at this time:		
SWMU / AOC No.	SWMU/AOC Name	Unit Comment/ Basis for CMS
No SWMUs or AOCs require a CMS at this time; however a joint RFI/CMS is required as outlined in Table A-5.b.		

Table A-5.b. List of Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) requiring a joint RCRA Facility Investigation (RFI) and Corrective Measures Study (CMS) at this time:

SWMU No.	SWMU/AOC Name	Basis for RFI/CMS Comment
The Permittee is required to conduct a joint/concurrent RFI/CMS for the SWMUs and AOCs identified in Table A-6 of this Permit. The joint/concurrent RFI/CMS shall incorporate the Environmental Covenants required by this Permit and the continued operation and maintenance of the vapor intrusion mitigation system being implemented as an IM at the Facility pursuant to the Permittee's Operation, Maintenance and Monitoring Plan dated March 20, 2020. The joint/concurrent RFI/CMS also shall include the following minimum components: • An evaluation of additional remedial options for groundwater contamination at the Facility; • A proposal and schedule for data collection as necessary to evaluate additional groundwater remedial options; • A proposal and schedule for an alternate groundwater Remedy for the Facility; and • A proposal for updates and enhancements to the Site Management Plan, including provisions to address vapor intrusion controls, related sampling, and other considerations.		

Table A-6. List of Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) requiring a Remedy:

Management Area	SWMU/AOC No.	SWMU/AOC Name	Unit Comment
Groundwater and Soil Management Area (GWSMA) 1	SWMU 4A	Former Acid Drumming Station	Approved Corrective Measures (see Appendix E for more details): (1) Monitored Natural Attenuation of contaminated groundwater; (2) a Site Management Plan (SMP) to facilitate a safe and environmentally responsible framework for subsurface construction and disturbance activities at the Facility; (3) an Environmental Covenant to (a) compel the continuation of commercial/industrial land use only, (b) prevent the use of groundwater as well as installation of wells (except monitoring wells as part of the Corrective Measures required by this Permit), (c) require continued operation and maintenance of the VI mitigation system at the Facility's existing building pursuant to a plan approved by the EPA; (d) prohibit any subsurface activities and any new construction of habitable buildings at the Facility property without the EPA's prior approval; and (e) require the implementation of the SMP in the performance of any subsurface activities that are approved by the EPA; and (4) Facility maintenance and inspection requirements, as described more fully in Appendix E of this Permit.
	AOC A	Abandoned Storage Tank Area	
	AOC C	Railcar Loading/Unloading Area	
	AOC E	Solvent Tank Farm Area	
GWSMA 2 (Blazer Property)	N/A	N/A	

Table A-7. List of Solid Waste Management Units (SWMUs) Formerly Regulated under a MDEQ Hazardous Waste Management Permit		
SWMU / AOC No.	SWMU/AOC Name	Unit Comment
The Hazardous Waste Container Storage Area and Non-Hazardous Waste Container Storage Area (SWMU 1) were previously regulated by a MDEQ Hazardous Waste Management Permit (No. 000-829-150). On December 10, 2012, Ashland Inc. withdrew its renewal application for the MDEQ Hazardous Waste Management Permit because it was in the process of closing the regulated unit. No SWMUs are currently regulated under any MDEQ Hazardous Waste Management or Post-Closure Permit.		

APPENDIX B: RCRA FACILITY INVESTIGATION (RFI) OUTLINE

The overall objective of the RCRA Facility Investigation (RFI) portion of the RCRA corrective action process is to evaluate the nature and extent of releases of hazardous wastes and/or hazardous constituents and to gather necessary data to support the Corrective Measures Study (CMS) and/or Interim Measures (IM). The investigation includes the following key planning components:

1. Gathering information on the physical aspects of the environment which will affect the migration and fate of the release and identification of exposure pathways for both humans and non-human members of the environment (Environmental Setting);
2. Gathering information on the source of the release(s) to the environment (Source Characterization),
3. Using Source Characterization and Environmental Setting to develop a Conceptual Site Model which will be used to plan and conduct a program to define the nature, rate and extent of the release (Sampling and Analysis Plan).

An RFI Work Plan and RFI Report are generally required elements of the RCRA corrective action process. The requirements for a full, detailed RFI are listed in this Appendix. The EPA recognizes that each facility is unique. Therefore, the scope and requirements of the RFI shall be focused to fit the complexity of the site-specific situation. The work plan requirements listed in this Appendix in no way limit the site-specific flexibilities available to the Permittee. For example, the RFI may be implemented in phases. Relevant information contained in previously developed documents, such as a RCRA Part B permit application, may be referenced as appropriate, but must be summarized in either the RFI Work Plan or the RFI Report.

In some cases, it may be possible to implement the RFI concurrently with the CMS (also see Appendix C). This approach can save time and money because the earlier in the corrective action process potential remedies can be identified, the more effectively information gathering can be focused. The EPA anticipates that a concurrent RFI/CMS approach may be appropriate in the following types of situations, among others: facilities where removal remedies have been proposed by the owner/operator, facilities with straightforward remedial solutions or where presumptive remedies can be applied, facilities where few remedial options are available, and facilities where the remedy is phased. The EPA will determine on a case-by-case basis if a joint or concurrent RFI/CMS is appropriate. Because of the unique data collection requirements necessary for a remedial solution which includes natural attenuation of contaminants in groundwater, if natural attenuation is expected to be part of the remedial solution, then the Sampling and Analysis Plan should be crafted to include monitoring of specific water quality parameters unique to natural attenuation (*e.g.*, nitrites/nitrates, ferrous iron, sulfides, dissolved oxygen, methane, hydrogen, etc.).

I. RFI WORK PLAN REQUIREMENTS - ELEMENTS OF THE RFI WORK PLAN

The RFI Work Plan shall include, at a minimum, the following elements:

A. Introduction - Summary of any relevant existing assessment data

The Permittee shall describe the purpose or objective of the RFI Work Plan and provide a summary of any existing environmental data which is relevant to the investigation. The summary should provide the following items, at a minimum:

1. Land ownership history,
2. Facility operating dates,
3. Facility's product(s),
4. Raw materials used in Facility operations and wastes generated,
5. Nature and extent of any known contamination,
6. Summary of ongoing Interim Measures and past assessments, and
7. Summary of permit objective and how this objective will be satisfied.

B. Environmental Setting

The Permittee shall provide information on the Environmental Setting at the Facility. The Permittee shall characterize the Environmental Setting as it relates to identified sources, pathways and areas of releases of hazardous constituents from Solid Waste Management Units (SWMUs) and/or Areas of Concern (AOCs). Data gaps pertinent to characterization of releases shall be identified and provisions made in Section E of the RFI Work Plan Requirements to obtain the relevant information to fill the data gaps. The Environmental Setting shall cover the following items, at a minimum:

1. Hydrogeology

The Permittee shall provide a summary of the hydrogeologic conditions at the Facility. This discussion shall include, but not be limited to, the following information:

- a. A description of the regional and facility specific geologic and hydrogeologic characteristics affecting groundwater flow beneath the Facility, including:
 - i. Regional and facility-specific stratigraphy: description of strata including strike and dip, identification of stratigraphic contacts;
 - ii. Structural geology: description of local and regional structural features (*e.g.*, folding, faulting, tilting, jointing, metamorphic foliation, etc.);
 - iii. Depositional history;
 - iv. Regional and facility-specific groundwater flow patterns (porous media, fracture media, karst media); and
 - v. Identification and characterization of areas and amounts of recharge and discharge (springs in karst terrain, base level streams and rivers).
- b. An analysis of any topographic features that might influence the groundwater flow system (*e.g.*, sinkholes and sinking streams in karst terrains).
- c. Based on any existing field data, tests (*e.g.*, pump tests, tracer tests), and cores, a representative and accurate classification and description of the hydrogeologic units which

may be part of the migration pathways at the Facility (*i.e.*, the aquifers and any intervening saturated and unsaturated units), including:

- i. Hydraulic conductivity and porosity (total and effective), groundwater flow velocity, groundwater basin discharge;
 - ii. Lithology, grain size, sorting, degree of cementation;
 - iii. An interpretation of hydraulic interconnections between saturated zones (*i.e.*, aquifers) and surface waters; and
 - iv. The attenuation capacity and mechanisms of the natural earth materials (*e.g.*, ion exchange capacity, organic carbon content, mineral content, etc.).
- d. Based on data obtained from groundwater monitoring wells and piezometers installed upgradient, water wells and/or springs downgradient of the potential contaminant source, a representative description of water level or fluid pressure monitoring including:
- i. Water level contour and/or potentiometric maps, including seasonal variations;
 - ii. Hydrologic cross sections showing vertical gradients;
 - iii. The flow system, including the vertical and horizontal components of flow; and
 - iv. Any temporal changes in hydraulic gradients, for example, due to tidal or seasonal influences and for karst terrain, storm flow.
- e. A description of man-made influences that may affect the hydrology of the site, identifying:
- i. Local water supply and production wells with an approximate schedule of pumping; and
 - ii. Man-made hydraulic structures (pipelines, French drains, ditches, roofs, runways, parking lots, etc.).

2. Soils

The Permittee shall provide an explanation of the soil and rock units above the water table in the vicinity of contaminant release(s). This summary may include, but not be limited to, the following types of information as appropriate:

- a. Surface soil distribution;
- b. Soil profile, including ASTM classification of soils;
- c. Transects of soil stratigraphy;
- d. Hydraulic conductivity (saturated and unsaturated);
- e. Relative permeability;
- f. Bulk density;
- g. Porosity;
- h. Soil sorption capacity;
- i. Cation exchange capacity (CEC);
- j. Soil organic content;
- k. Soil pH;
- l. Particle size distribution;
- m. Depth of water table;
- n. Moisture content;
- o. Effect of stratification on unsaturated flow;
- p. Infiltration

- q. Evapotranspiration;
- r. Storage capacity;
- s. Vertical flow rate; and
- t. Mineral content.

3. Surface Water and Sediment

The Permittee shall provide a description of the surface water bodies in the vicinity of the Facility. This summary may include, but not be limited to, the following activities and information:

- a. Description of the temporal and permanent surface water bodies including:
 - i. For lakes and estuaries: location, elevation, surface area, inflow, outflow, depth, temperature stratification, and volume;
 - ii. For impoundments: location, elevation, surface area, depth, volume, freeboard, and construction and purpose;
 - iii. For streams, ditches, and channels: location, elevation, flow, velocity, depth, width, seasonal fluctuations, flooding tendencies (*i.e.*, 100-year event), discharge point(s), and general contents.
 - iv. Drainage patterns; and
 - v. Evapotranspiration.
- b. Description of the chemistry of the natural surface water and sediments. This includes determining the pH, total dissolved solids, total suspended solids, biological oxygen demand, alkalinity, conductivity, dissolved oxygen profiles, nutrients, chemical oxygen demand, total organic carbon, specific contaminant concentrations, etc.
- c. Description of sediment characteristics including:
 - i. Deposition area;
 - ii. Thickness profile; and
 - iii. Physical and chemical parameters (*e.g.*, grain size, density, organic carbon content, ion exchange capacity, pH, *etc.*).

4. Air

The Permittee shall provide information characterizing the climate in the vicinity of the Facility. Such information may include, but not be limited to:

- a. A description of the following parameters:
 - i. Annual and monthly rainfall averages;
 - ii. Monthly temperature averages and extremes;
 - iii. Wind speed and direction;
 - iv. Relative humidity/dew point;
 - v. Atmospheric pressure;
 - vi. Evaporation data;
 - vii. Development of inversions; and
 - viii. Climate extremes that have been known to occur in the vicinity of the Facility, including frequency of occurrence (*i.e.*, hurricanes)

- b. A description of topographic and man-made features which affect air flow and emission patterns, including:
 - i. Ridges, hills or mountain areas;
 - ii. Canyons or valleys
 - iii. Surface water bodies (*e.g.*, rivers, lakes, bays, etc.); and
 - iv. Buildings.

C. Source Characterization

For those sources from which releases of hazardous constituents have been detected, the Permittee shall provide analytical data to completely characterize the wastes and the areas where wastes have been placed, to the degree that is possible without undue safety risks, including: type, quantity; physical form; disposition (containment or nature of deposits); and Facility characteristics affecting release (*e.g.*, Facility security, and engineering barriers). Data gaps on source characterization shall be identified and provisions made in Section E to obtain the relevant information to fill the data gap. This summary shall include quantification of the following specific characteristics, at each source area:

1. Unit/Disposal Area Characteristics:

- a. Location of unit/disposal area;
- b. Type of unit/disposal area;
- c. Design features;
- d. Operating practices (past and present);
- e. Period of operation;
- f. Age of unit/disposal area;
- g. General physical conditions; and
- h. Method used to close the unit/disposal area.

2. Waste Characteristics:

- a. Type(s) of wastes placed in the unit;
 - i. Hazardous classification (*e.g.*, flammable, reactive, corrosive, oxidizing or reducing agent);
 - ii. Quantity; and
 - iii. Chemical composition.
- b. Physical and chemical characteristics such as:
 - i. Physical form (solid, liquid, gas);
 - ii. Physical description (*e.g.*, powder, oily sludge);
 - iii. Temperature;
 - iv. pH;
 - v. General chemical class (*e.g.*, acid, base, solvent);
 - vi. Molecular weight;
 - vii. Density;
 - viii. Boiling point;
 - ix. Viscosity;
 - x. Solubility in water;
 - xi. Cohesiveness of the waste; and
 - xii. Vapor pressure.

- c. Migration and dispersal characteristics of the waste such as:
 - i. Sorption capability;
 - ii. Biodegradability, bioconcentration, and biotransformation;
 - iii. Photodegradation rates;
 - iv. Hydrolysis rates; and
 - v. Chemical transformations.

D. Potential Receptors

The Permittee shall provide data describing the human populations and environmental systems that are susceptible to contaminant exposure from the Facility. Data gaps pertinent to receptor analysis shall be identified and provisions made in Section E to obtain the relevant information to fill the data gap. The following characteristics shall be identified at a minimum:

1. Current local uses and planned future uses of groundwater:

- a. Type of use (*e.g.*, drinking water source: municipal or residential, agricultural, domestic/non-potable, and industrial);
- b. Location of groundwater users, to include withdrawal and discharge wells and springs, within one mile of the impacted area.

The above information should also indicate the aquifer or hydrogeologic unit used and/or impacted for each item.

2. Current local uses and planned future uses of surface waters directly impacted by the Facility:

- a. Domestic and municipal (*e.g.*, potable and lawn/gardening watering);
- b. Recreational (*e.g.*, swimming, fishing);
- c. Agricultural;
- d. Industrial; and
- e. Environmental (*e.g.*, fish and wildlife propagation).

3. Human use of or access to the Facility and adjacent lands, including but not limited to:

- a. Recreation;
- b. Hunting;
- c. Residential;
- d. Commercial; and
- e. Relationship between population locations and prevailing wind direction.

4. A general description of the biota in surface water bodies on, adjacent to, or affected by the Facility.

5. A general description of the ecology within the area adjacent to the Facility.

6. A general demographic profile of the people who use or have access to the Facility and adjacent land, including, but not limited to: age; sex; and sensitive subgroups.

7. A description of any known or documented endangered or threatened species near the Facility.

E. Sampling and Analysis Plan(s) for Characterization of Releases of Hazardous Waste/Hazardous Constituents

The Permittee shall prepare a plan to document all monitoring procedures necessary to characterize the extent, fate and transport of releases (*i.e.*, identify sample locations, sample procedures and sample analysis to be performed during the investigation to characterize the environmental setting, source, and releases of hazardous constituents, so as to ensure that all information and data are valid and properly documented). The sampling strategy and procedures shall be in accordance with the EPA Region 4 Field Branches Quality System and Technical Procedures (most recent version). Any deviations from this reference must be requested by the Permittee and approved by the EPA. If a Risk Assessment is expected to be performed once release characterization is complete or nearly complete, Data Quality Objectives (DQO) for a Human Health Risk Assessment requires a Data Quality Objective of Level 3 or greater.

The Sampling and Analysis Plan must specifically discuss the following unless the EPA Region 4 Field Branches Quality System and Technical Procedures (most recent version) procedures are specifically referenced.

1. Sampling Strategy

- a. Selecting appropriate sampling locations, depths, etc.;
- b. Obtaining all necessary ancillary data;
- c. Determining conditions under which sampling should be conducted;
- d. Determining which media are to be sampled (*e.g.*, groundwater, air, soil, sediment, subsurface gas);
- e. Determining which parameters are to be measured and where;
- f. Selecting the frequency of sampling and length of sampling period;
- g. Selecting the types of samples (*e.g.*, composite vs. grab) and number of samples to be collected; and
- h. Determining the applicable Regional Screening Levels (RSLs)¹, background or other appropriate value for the environmental medium of concern for use in data comparisons.

2. Sampling Procedures

- a. Documenting field sampling operations and procedures, including:
 - i. Documentation of procedures for preparation of reagents or supplies which become an integral part of the sample (*e.g.*, filters, preservatives, and absorbing reagents);
 - ii. Procedures and forms for recording the exact location and specific considerations associated with sample acquisition;

¹ The EPA has developed guidance for the use of generic RSLs for most hazardous constituents to enable simple risk evaluations through comparisons with the actual release concentration measured in the soil or water at the facility SWMUs/AOCs. These generic RSLs are conservative health-based concentrations of hazardous constituents determined to be risk indicators for the protection of human health or the environment. The most current User's Guide and table of RSLs can be found at the following web site: <https://www.epa.gov/risk/regional-screening-levels-rsls>

- iii. Documentation of specific sample preservation method;
 - iv. Calibration of field instruments;
 - v. Submission of appropriate blanks (*e.g.*, field, equipment, trip, etc.);
 - vi. Potential interferences present at the Facility;
 - vii. Construction materials and techniques, associated with monitoring wells and piezometers;
 - viii. Field equipment listing and sampling containers;
 - ix. Sampling order; and
 - x. Decontamination procedures.
- b. Selecting appropriate sample containers;
 - c. Sampling preservation; and
 - d. Chain-of-custody, including:
 - i. Standardized field tracking reporting forms to establish sample custody in the field prior to shipment;
 - ii. Pre-prepared sample labels containing all information necessary for effective sample tracking; and
 - iii. Chain-of-custody seals for sample containers and shipping coolers.

3. Sample Analysis

Sample analysis shall be conducted in accordance with SW-846: “Test Methods for Evaluating Solid Waste - Physical/Chemical Methods” (most recent version) or an alternate approved method. The sample analysis section of the Sampling and Analysis Plan shall specify the following:

- a. Chain-of-custody procedures, including:
 - i. Identification of a responsible party to act as sampling custodian at the laboratory facility authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records;
 - ii. Provision for a laboratory sample custody log consisting of serially numbered standard lab tracking report sheets; and
 - iii. Specification of laboratory sample custody procedures for sample handling, storage, and dispersal for analysis.
- b. Sample storage (*e.g.*, maximum holding times for constituents);
- c. Sample preparation methods;
- d. Analytical Procedures, including:
 - i. Scope and application of the procedure;
 - ii. Sample matrix;
 - iii. Potential interferences;
 - iv. Precision and accuracy of the methodology; and
 - v. Method Detection Limits; and
 - vi. Practical Quantitative Limits.
- e. Calibration procedures and frequency;

- f. Data reduction, validation and reporting;
- g. Internal quality control checks, laboratory performance and systems audits and frequency, including:
 - i. Method blank(s);
 - ii. Laboratory control sample(s);
 - iii. Calibration check sample(s);
 - iv. Replicate sample(s);
 - v. Matrix-spiked sample(s);
 - vi. "Blind" quality control sample(s);
 - vii. Control charts;
 - viii. Surrogate samples;
 - ix. Zero and span gases; and
 - x. Reagent quality control checks.
- h. External quality control checks by the EPA, including:
 - i. Spikes and blanks at sampling events for which the EPA or its technical representative provides oversight; and
 - ii. The equivalent of a Contract Laboratory Procedures (CLP) data package for samples split with the EPA or for which the EPA specifically requests the package.
- i. Preventive maintenance procedures and schedules;
- j. Corrective action (for laboratory problems); and
- k. Turnaround time.

F. Data Management Plan

The Permittee shall develop and initiate a Data Management Plan to document and track investigation data and results. This plan shall identify and set up data documentation materials and procedures, project file requirements, and project-related progress reporting procedures and documents. The plan shall also provide the format to be used to present the raw data and conclusions of the investigation.

1. Data Record: The data record shall include the following:
 - a. Unique sample or field measurement code;
 - b. Sampling or field measurement location and sample or measurement type;
 - c. Sampling or field measurement raw data;
 - d. Laboratory analysis ID number;
 - e. Property or component measures; and
 - f. Result of analysis (*e.g.*, concentration, data qualifiers).
2. Tabular Displays: The following data shall be presented in tabular displays:
 - a. Unsorted (raw) data;
 - b. Results for each medium, or for each constituent monitored;
 - c. Data reduction for statistical analysis, as appropriate;

- d. Sorting of data by potential stratification factors (*e.g.*, location, soil layer, topography); and
 - e. Summary data.
3. Graphical Displays: The following data shall be presented in graphical formats (*e.g.*, bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.
- a. Display sampling location and sampling grid;
 - b. Indicate boundaries of sampling area, and area where more data are required;
 - c. Display geographical Extent of Contamination, both horizontally and vertically;
 - d. Illustrate changes in concentration in relation to distances from the source, time, depth or other parameters; and
 - e. Indicate features affecting inter-media transport and show potential receptors.

G. Project Management Plan - Schedule of Implementation

Permittee shall prepare a Project Management Plan which will cover qualifications of personnel categories and the management control structure for the project. The Permittee shall also provide a schedule for completing the planned RFI activities. The schedule shall be as specific as possible (*i.e.*, it should indicate the number of calendar days/weeks/months required for each major work plan task).

II. RFI REPORT REQUIREMENTS - ELEMENTS OF THE RFI REPORT

The RFI Report shall include, at a minimum, the following elements:

A. Introduction

The Permittee shall describe the purpose of the RFI Work Plan and provide a summary description of the project.

B. Environmental Setting

The Permittee shall describe the Environmental Setting in and around the Facility. The RFI Work Plan should contain some, if not all, of the information on the Environmental Setting. Any information collected during work plan implementation which clarifies or improves understanding of the Environmental Setting should be provided in this section.

C. Source Characterization

The Permittee shall summarize the sources of contamination and nature of releases identified at the Facility. The RCRA Facility Assessment and the RFI Work Plan should contain some, if not all, of the information on Source Characterization. Any information collected during work plan implementation or obtained from the sources (*e.g.*, voluntarily or from other Environmental Programs) which directly addresses Source Characterization should be provided in this section.

D. Sampling and Analysis Results, Characterization of Releases of Hazardous Wastes/Hazardous Constituents

The Permittee shall present data results obtained pursuant to the RFI Work Plan along with any interpretations needed to adequately describe the sources of contamination, levels of released hazardous constituents in relation to background and/or RSLs, the extent of contamination, migration pathways, and potential receptors, etc. The Permittee shall identify any work plan proposals which were not completed and explain why such actions were not finished. The Permittee shall also present its analysis/interpretation of how the sampling data meet the RFI objective and how the sampling data fits or modifies the Conceptual Site Model. For all analytical data, the Permittee shall discuss the results of data quality/data review.

E. Data Quality Assurance/Data Quality Data Review

The Permittee shall perform a Quality Assurance/Quality Control data review on all data present in the RFI. The Quality Assurance/Quality Control data review shall be in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (EPA-540/R94-013) and the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (EPA-540/R94-012). The data review shall address the following, at minimum:

1. Holding times;
2. Blanks;
3. Laboratory Control Samples;
4. Field Duplicates;
5. Surrogate Recoveries;
6. Matrix Spike/Matrix Spike Duplicates; and
7. Data Assessment - Data Usability.

F. Risk Assessment

The EPA understands that Risk Assessments are widely utilized to place characterization information into context and to aid in determining remedial solutions. If a Risk Assessment is expected to be performed in the future, note that Region 4 has developed supplemental guidance to aid Permittee(s) and their contractor(s) in the development of high-quality risk assessments (*i.e.*, Human Health Regional Supplemental Guidance Report, Ecological Risk Assessment Guidance).

G. Conclusions

The Permittee shall summarize the major conclusions reached after analysis of the environmental setting, source characterization, sampling and analysis results and data quality. Any data gaps, needed to complete characterization of the scope and extent of the releases from SWMUs and/or AOCs or to refine further the contaminant conceptual model, shall be identified and recommendations made in the Recommendations Section of the report.

H. Recommendations

The Permittee shall provide its recommendations on what, if any, further action is needed to complete the characterization of release(s) from the SWMUs and/or AOCs addressed in the RFI.

I. Work Plan for Additional Investigations

If further investigations are determined to be needed to complete the objective(s) of the RFI, then the Permittee shall provide a supplemental RFI work plan to complete characterization of the release(s).

APPENDIX C: CORRECTIVE MEASURE STUDY (CMS) OUTLINE

The objective of the CMS is to perform all studies or analysis necessary to identify and evaluate potential remedial alternatives for the releases of Hazardous Waste and/or Hazardous Constituents that have been identified at the Facility, either through the RCRA Facility Investigation (RFI) or other investigations, to need further evaluation. The scope and requirements of the CMS are balanced with the expeditious initiation of remedies and rapid restoration of contaminated media. The scope and requirements of the CMS should be focused to fit the complexity of the facility-specific situation. It is anticipated that Permittees with facilities with complex environmental problems may need to evaluate a number of technologies and remedial alternatives. For other facilities, however, the evaluation of a single remedial alternative may be adequate. Therefore, a streamlined or focused approach to the CMS may be initiated. Information gathered during any Interim Measures will be used to supplement the CMS or may be a substitute for a CMS, where appropriate.

The detail of a CMS will vary based upon the complexity of a facility, ongoing Interim Measures, *etc.* However, the CMS shall include the following elements, unless otherwise agreed to by the EPA:

A. Introduction/Purpose

The Permittee shall describe the purpose of the CMS and provide a summary description of the project.

B. Description of Current Situation

The Permittee shall submit a summary and an update to the information describing the current status of operations, SWMUs, and AOCs at the Facility and the known nature and extent of the contamination, as documented by the RFI Report(s), Interim Measures Report(s), or other Facility-specific documents. This discussion should concentrate on those issues which could significantly affect the evaluation and selection of the remedial alternative(s). This update shall include information regarding previous response activities and Interim Measures which have, or are being, implemented at the Facility. The Permittee shall also make a Facility-specific statement of the purpose for the remedial action, which identifies the actual or potential exposure pathways that should be addressed by the remedial action.

C. RCRA Remedy Performance Standards (Remedy Threshold Criteria)

Each remedial alternative evaluated in the CMS must be compared to the following Remedy Performance Standards. The EPA has established that long-term protection is achieved once a remedy meets the following three criteria (also known as the “remedy threshold criteria”). The Permittee shall use these criteria as the Remedy Performance Standards in the CMS:

1. Protect Human Health and the Environment;
2. Attain Media Cleanup Standards;² and
3. Control Sources of Releases.

2 Media cleanup standards must be proposed/identified as part of the CMS. The standards must be either background, promulgated federal and state standards, or risk-derived standards. Selection of cleanup standards also requires the establishment of points of compliance, which represent where the media cleanup levels are to be achieved, and a remediation timeframe for the remedy (e.g., the facility-specific schedule for both construction of the remedy and timeframe for achieving cleanup levels at the point of compliance).

D. Corrective Measures (Remedial) Alternatives Development, Evaluation, and Comparison

Step 1: Create Facility-Specific Corrective Measure Objectives (a.k.a. Remedial Action Objectives) based on the Remedy Performance Standards

Facility-Specific Corrective Measures Objectives should be based on the Remedy Performance Standards outlined in Section C above, in conjunction with the current and reasonably expected future land, surface water and groundwater uses and the identified routes of contaminant exposure to humans and ecological receptors. They are the specific goals the Corrective Measures alternatives must meet in order to address facility-specific environmental contamination and identified risks.³

The following are some examples of facility-specific Corrective Measures Objectives for two of the most common environmental media encountered during cleanups:

Soil

- E.g., Remove contaminated soils to levels protective of residential use.
- E.g., Remove sources of contamination adversely impacting other media or in support of the long-term cleanup of other media.
- E.g., Maintain, in perpetuity, land use as industrial, a setting that has been found to be protective for the detected soil concentrations.
- E.g., Ensure that industrial/commercial workers, construction workers, and trespassers are not exposed to unacceptable

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- 3 In developing facility-specific Corrective Action Objectives, please keep in mind the following general remedial expectations that the EPA identified in the Advanced Notice of Proposed Rulemaking (Federal Register Vol. 61, 85, May 1, 1996, page 19448):
1. Use of treatment to address principle threat wastes.
 2. Use of engineering and institutional controls for relatively low long-term threats.
 3. Use of combination of treatment, engineering, and institutional controls to achieve protection of human health and the environment.
 4. Use of IC to supplement engineering controls.
 5. Use of innovative technology where appropriate (e.g., when innovative technology offers potential for comparable or superior treatment, less adverse impact, etc.)
 6. Restoration of groundwater to maximum beneficial use.
 7. Remediation of contaminated soils as necessary to prevent or limit direct exposure to receptors and prevent transfer of unacceptable contamination between environmental media.

levels of soil contaminants.

- E.g., Minimize the potential for soil contaminants to leach and contaminate groundwater or adversely impact groundwater cleanup.

Groundwater⁴

- E.g., Restore groundwater to maximum beneficial use throughout the plume, which in this case is as a drinking water aquifer.
- E.g., While aquifer restoration is sought, hydraulically control the groundwater plume in order to keep contamination that is above identified cleanup standards from expanding and/or migrating off-site.
- E.g., Remove significant sources of subsurface mass.
- E.g., While aquifer restoration is sought, restrict groundwater use and any possible non-potable exposure to contaminated groundwater (e.g. construction worker exposure to contaminated groundwater, transfer of contaminants from groundwater to indoor air).

Step 2: Identification and Screening of Corrective Measures Technologies and Management Controls

Based on the Facility-specific Corrective Measure Objectives formed in Step 1, Corrective Measures technologies and management controls should be identified and screened for use in development of Corrective Measures alternatives in Step 3.

1. Identification: The Permittee shall list and briefly describe potentially applicable technologies/controls for each affected media that may be used to achieve the Facility-specific Corrective Measures Objectives, and include a table that summarizes the available technologies/controls.

4 NOTE: It is the EPA's policy to determine protective media cleanup objectives for groundwater remedies considering the use, value, and vulnerability of the groundwater resource, and all potential pathways that could result in human or ecological exposure to contaminants (Final Comprehensive State Ground Water Protection Program Guidance, December 1992). Typically, the groundwater use designation or classification system is the starting point for determining the appropriate reasonable expected uses and exposures to evaluate risks and identify groundwater cleanup levels.

Reaching restoration of groundwater will not occur unless the original source is remediated/eliminated. In this context, "sources" includes both the location of the original release as well as locations where significant mass of contaminants may have migrated and remain in a distinct geographic area.

The Permittee should consider innovative treatment technologies, especially in situations where there are a limited number of applicable remedial technologies.

2. Screening: The Permittee shall screen the remedial technologies/controls to eliminate those that may prove infeasible to implement, that rely on technologies unlikely to perform satisfactorily or reliably, or that will not achieve the Facility-specific Corrective Measure Objectives within a reasonable time period. This screening process should focus on eliminating those technologies which have severe limitations for a given set of waste(s) and Facility-specific conditions.

Facility, waste, and technology characteristics which are used to screen inapplicable technologies are described in more detail below:

- a. Facility Characteristics: Facility characteristics should be reviewed to identify conditions that may limit or promote the use of certain technologies. Technologies whose use is clearly precluded by the Facility characteristics should be eliminated from further consideration.
- b. Waste Characteristics: Identification of waste characteristics that limit the effectiveness or feasibility of technologies is an important part of the screening process. Technologies clearly limited by these waste characteristics should be eliminated from consideration. Waste characteristics particularly affect the feasibility of in-situ methods, direct treatment methods, and land disposal (on/off-site).
- c. Technology Limitations: During the screening process, the level of technology development, performance record, and inherent construction, operation, and maintenance problems should be identified for each technology considered. For example, certain treatment methods have been developed to a point where they can be implemented in the field without extensive technology transfer or development. Technologies that are unreliable, perform poorly, or are not fully demonstrated may be eliminated in the screening process.

Step 3: Development of Potential Corrective Measures (Remedial) Alternative(s)

The Permittee shall assemble the technologies and management controls that pass the screening step (Step 2) into specific remedial alternative(s) that have the potential to meet the Facility-specific Corrective Measure Objectives for each media. Options for addressing less complex facilities could be relatively straight-forward and may only require evaluation of a single or limited number of remedial alternatives. Each potential remedial alternative may consist of an individual technology or a combination

used in sequence (i.e., treatment train). Different potential remedial alternatives may be considered for separate areas of a facility, as appropriate.

Step 4: Evaluation of Potential Corrective Measures (Remedial) Alternative(s) Against the Remedy Performance Standards

The Permittee shall provide a detailed description of how/whether each potential remedial alternative will comply with Remedy Performance Standards. In practice, this evaluation may actually occur simultaneously under Steps 1 through 3 as the Facility-specific Corrective Measures Objectives are identified and alternatives developed and presented in the CMS.

The Remedy Performance Standards must be met by every potential remedial alternative. If the potential remedial alternative does not meet any one of these performance standards (barring a finding that a threshold criterion does not apply given a Facility-specific situation), then the potential remedial alternative is not viable and should not be considered further in the CMS.

In evaluating the potential remedial alternative or alternatives, the Permittee shall prepare and submit information that documents whether each potential remedial alternative will meet the Remedy Performance Standards. The following general guidance will help in completing this evaluation.

1. Protect Human Health and the Environment: Protecting human health and the environment is a general mandate from the RCRA statute. Remedies must be protective of human health and the environment. Remedies usually meet this criterion by meeting the second (meet cleanup goals) and third (source control) criteria. However, this first criterion also serves to ensure remedies include protective activities that would not necessarily be needed to achieve the other criteria. As such, remedies may include those measures that are needed to be protective, but are not directly related to media cleanup, or source control. An example would be a requirement to provide alternative drinking water supplies in order to prevent exposures to releases from an aquifer used for drinking water purposes. Therefore, the Permittee shall provide a discussion of how any short-term activities are necessary to meet this standard, and how the remedial alternative(s) meet this standard.
2. Attain Media Cleanup Standards: As part of the necessary information for satisfying this requirement, the Permittee shall address whether the remedial alternative will achieve the chemical-specific cleanup standards for each media (see footnote 3).
3. Control of Sources of Releases: This criterion refers to reducing or eliminating, to the extent practical, further releases that may pose a threat to human health and the environment. This control applies to both the originating source of contamination (e.g., leaking drums, highly contaminated soil, sludge material) and any locations where significant mass of contaminants have migrated (e.g., NAPL). The Permittee shall address the issue of whether source control measures are necessary, and if so, the

type of actions that would be appropriate. Any source control measure proposed should include a discussion on how well the method is anticipated to work given the particular situation at the Facility and the known track record of the specific technology.

Step 5: Comparison of Viable Corrective Measures (Remedial) Alternative(s) to Balancing Criteria

When one or more of the potential remedial alternatives appears to be capable of achieving the Remedy Performance Standards and Corrective Measures Objectives, the Permittee shall perform additional analysis on any viable remedial alternative(s) using the following five (5) balancing criteria. Unlike the Remedy Performance Standards, which are threshold criteria that must be met, the balancing criteria are qualitative “scales” that help in evaluating which viable remedial alternatives provide the most appropriate combination of technologies/controls to address the environmental problems at the Facility. When only one viable remedial alternative exists, the balancing criteria no longer help in distinguishing between viable remedial alternatives; instead, they assist in evaluating if the sole viable remedial alternative contains an acceptable approach to addressing the Facility’s contamination.

1. Long-term reliability and effectiveness: The Permittee should consider whether the technology, or combination of technologies/controls, has been used effectively under analogous facility conditions, whether failure of any one technology in the alternative would have any immediate impact on receptors, and whether the alternative would have the flexibility to deal with uncontrollable changes at the Facility. Operation and maintenance requirements include the frequency and complexity of necessary operation and maintenance. In addition, each remedial alternative should be evaluated in terms of the projected useful life of the overall alternative and of its component technologies. Useful life is defined as the length of time the level of effectiveness can be maintained.
2. Reduction in the toxicity, mobility or volume of wastes: As a general goal, remedies will be preferred that employ techniques that are capable of eliminating or substantially reducing the potential for the wastes in SWMUs, AOCs, and/or contaminated media at the Facility to cause future environmental releases. Estimates of how the remedial alternative will reduce toxicity, mobility and/or volume of the waste is required and may be accomplished through a comparison of initial Facility conditions to expected post-remedial conditions.
3. Short-term effectiveness: The Permittee shall evaluate each remedial alternative for short-term effectiveness. Possible factors to consider are fire, explosion, exposure to hazardous constituents and potential threats associated with the treatment, excavation, transportation and re-disposal or containment of the waste material.

4. Implementability: Information to consider when assessing implementability includes:
 - a. The administrative activities needed to implement the remedial alternative (*e.g.*, permits, rights-of-way, etc.) and the length of time these activities will take;
 - b. The constructability, time for implementation, and time for beneficial results;
 - c. The availability of adequate off-site treatment, storage capacity, disposal services, needed technical services and materials; and
 - d. The availability of prospective technologies for each remedial alternative.
5. Cost: The Permittee shall develop an estimate of the cost of each remedial alternative (and for each phase or segment of the alternative). The cost estimate shall include both capital and operation and maintenance costs. The capital costs shall include, but are not limited to, costs for: engineering, site preparation, construction, materials, labor, sampling/analysis, waste management/disposal, permitting, health and safety measures, etc. The operation and maintenance costs shall include labor, training, sampling and analysis, maintenance materials, utilities, waste disposal and/or treatment, etc. Costs shall be calculated as the net present value of the capital and operation and maintenance costs.
6. Community Acceptance (Modifying Criteria): Community involvement shall discuss any impact the remedial alternatives might have on the community. For example, the analysis should include a discussion of any concerns raised by the community during the investigation. It also should discuss any aspects associated with an alternative where there is a potential for community objections. If not already discussed elsewhere, any future use or reuse plans for the Facility should be explained. Formal consideration of community acceptance by the EPA will occur during public notice of the proposed remedy.
7. State Acceptance (Modifying Criteria): The Permittee shall include a discussion of how the specific remedial alternatives will be conducted in compliance with all applicable State regulations (*i.e.* permit requirements).

E. Justification and Recommendation of the Remedy

The Permittee shall justify and recommend a remedial alternative for consideration by the EPA. Such a recommendation should include a description and supporting rationale for the preferred alternative that is consistent with the Remedy Performance Standards and the five balancing factors discussed above. In addition, this recommendation shall include summary tables which

allow the alternative or alternatives to be understood easily. Trade-offs among health risks, environmental effects, and other pertinent factors shall be highlighted.

From the viable Corrective Measures alternatives presented in the CMS and with consideration of the Permittee's recommended Corrective Measures alternative, the EPA will select an alternative to be the proposed remedy that, along with the other viable Corrective Measures alternatives discussed in the CMS, will be presented for public review and comment in a Statement of Basis.

APPENDIX D: SUMMARY OF PERMIT SCHEDULE OF COMPLIANCE

Schedule of Compliance	Due Date (if applicable)
Cost Estimate for Completion of Corrective Action <i>See Condition I.D.4.b.</i>	Within one hundred twenty (120) calendar days of the effective date of this Permit.
Annual Cost Estimate Review Report <i>See Condition I.D.4.c.</i>	Annually, sixty (60) calendar days prior to the establishment of the financial assurance mechanism unless using a financial test or corporate guarantee, in which case the estimate shall be updated thirty (30) calendar days after the close of the Permittee's fiscal year.
Changes to Cost Estimate <i>See Condition I.D.4.d.</i>	Within thirty (30) calendar days after receiving approval of cost estimate change, if the change increases the cost of Corrective Action. Within one hundred twenty (120) calendar days for cost adjustments related to a permit modification to select a Remedy pursuant to Condition II.K.
Financial Assurance for Completion of Corrective Action <i>See Condition I.D.5.b.</i>	Within sixty (60) calendar days after approval of cost estimate in Condition I.D.4.b.
Noncompliance/Imminent Hazard Report <i>See Condition I.D.16.</i>	Oral within twenty-four (24) hours and written within fifteen (15) calendar days of becoming aware of the hazardous circumstances.
Notification of Newly Identified SWMUs or Suspected AOCs <i>See Condition II.B.1. and Condition II.B.4.</i>	Within fifteen (15) calendar days of Discovery.
SWMU Assessment Report <i>See Condition II.B.2.</i>	Within ninety (90) calendar days of notification.
Notification for Newly Discovered Releases at Previously Identified SWMUs and AOCs <i>See Condition II.C.1.</i>	Within fifteen (15) calendar days of Discovery.
Confirmatory Sampling Work Plan for SWMUs or AOCs identified under Condition II.A.2. <i>See Condition II.D.1.a.</i>	Within forty-five (45) calendar days of the effective date of this Permit.
Confirmatory Sampling Work Plan for suspected AOCs, new SWMUs, or newly identified Releases. <i>See Condition II.D.1.b.</i>	Within forty-five (45) calendar days of notification by the EPA.
Confirmatory Sampling Report <i>See Condition II.D.3.</i>	In accordance with the approved CS Work Plan.

Schedule of Compliance	Due Date (if applicable)
CS Progress Reports <i>See Condition II.D.4.</i>	Quarterly, beginning ninety (90) calendar days from the start date specified by the EPA.*
RFI Work Plan for SWMUs and AOCs identified under Condition II.A.3. <i>See Condition II.E.1.a.</i>	Within ninety (90) calendar days of the effective date of the Permit.
RFI Work Plan for SWMUs and AOCs identified under Conditions II.B.1., II.B.3., II.B.4., II.B.5., II.C.2., II.C.3., or II.D.3.b. <i>See Condition II.E.1.b.</i>	Within ninety (90) calendar days after receipt of notification by the EPA regarding which SWMUs or AOCs require an RFI.
RFI Report <i>See Condition II.E.3.a.</i>	In accordance with the approved RFI Work Plan.
RFI Progress Reports <i>See Condition II.E.4.</i>	Quarterly, beginning ninety (90) calendar days from the start date specified by the EPA*
Interim Measures Work Plan for SWMUs or AOCs identified under Condition II.A.4. <i>See Condition II.F.1.a.</i>	Within thirty (30) calendar days of the effective date of the Permit.
Interim Measures Work Plan for SWMUs or AOCs identified under Condition II.F.1.b. <i>See Condition II.F.1.b.</i>	Within thirty (30) calendar days of notification by the EPA.
Interim Measures Report <i>See Condition II.F.3.a.</i>	Within ninety (90) calendar days of completion of IM.
Interim Measures Progress Reports <i>See Condition II.F.4.</i>	In accordance with the approved IM Work Plan or semi-annually for Permittee-initiated IM**.
CMS for SWMUs or AOCs identified at Permit issuance under Condition II.A.5 (Appendix A, Table A-5.a). <i>See Condition II.G.1.a.</i>	Within ninety (90) calendar days of the effective date of the Permit.
CMS for SWMUs or AOCs identified during Permit implementation <i>See Condition II.G.1.b.</i>	Within ninety (90) calendar days of notification by the EPA that a CMS is required.
Joint or Concurrent RFI/CMS for SWMUs or AOCs identified in Condition II.A.5. (Appendix A, Table A-5.b.) <i>See Condition II.G.3.</i>	Proposal within ninety (90) calendar days of the effective date of this Permit, and a final report in accordance with the schedule in the EPA-approved proposal.
Environmental Covenant <i>See Condition II.H.2.</i>	Within sixty (60) calendar days of the effective date of this Permit.

Schedule of Compliance	Due Date (if applicable)
CMI Work Plan <i>See Condition II.J.1.a.</i>	Within thirty (30) calendar days of the effective date of the Permit or within thirty (30) calendar days after the Permit has been modified for remedy selection.
Cost Estimates and Demonstration of Financial Assurance for Final Remedy <i>See Condition II.J.3.</i>	Within one hundred twenty (120) calendar days after the Permit has been modified to select a Remedy.
CMI Construction Completion Report <i>See Condition II.J.4.a.</i>	Once the Permittee has completed the physical construction of all required remedial activities, including any engineering controls, and all required ICs have been put in place.
Annual Corrective Measures Implementation and Effectiveness Reports <i>See Condition II.J.4.b.</i>	In accordance with the CMI Work Plan, or annually if the CMI Work Plan is silent on timing of the report.
Remedy Performance Standards Attained Report <i>See Condition II.J.4.c.</i>	Once all of the Remedy Performance Standards listed in Appendix C have been attained and all that remains is compliance with and maintenance of any IC.
Alternative CMS <i>See Condition II.J.4.d. and 4.e.</i>	Within ninety (90) calendar days after it is determined that the Corrective Measures are incapable of attaining the Remedy Performance Standards.
Invoking Dispute Resolution <i>See Condition II.N.2.</i>	Within thirty (30) calendar days of receipt of the EPA's revision of a submission or disapproval of a revised submission.
The above reports must be signed and certified in accordance with 40 CFR § 270.11. * This applies to Work Plan execution that requires more than one hundred eighty (180) calendar days. ** This applies to Work Plan execution that requires more than one year.	

APPENDIX E: SELECTED REMEDY

In the 2014 HSWA Permit, the EPA selected a Remedy based on the EPA's review at that time of the 2011 Revised CMS Report. In this Permit, the EPA is requiring the Permittee to conduct a joint RFI/CMS pursuant to Condition II.G.3. and Table A-5.b. for the SWMUs and AOCs listed in Appendix A, Table A-6. of this Permit. The joint RFI/CMS required by this Permit will be used to evaluate additional remedial options and the adequacy of the Remedy selected under the 2014 HSWA Permit. Until such time as the EPA revises the Remedy in a future modification or renewal of this Permit, the Permittee is required to continue the Remedy described below for the Facility, including the Blazer Property.

Monitored Natural Attenuation (MNA): The Permittee shall continue groundwater monitoring for purposes of demonstrating MNA at the Facility in accordance with the EPA-approved 2012 CMI Plan, or any other new or amended CMI Work Plan that is subsequently approved by the EPA in accordance with Condition II.M. of this Permit. In connection with issuing the 2014 HSWA Permit, the EPA found the groundwater Target Cleanup Standards (TCS) set out in the 2011 Revised CMS Report to be protective of human health and the environment under current and reasonably expected future land use. Table E-1 below shows the groundwater TCS that were approved as part of the Revised Final CMS Report.

Table E-1: Groundwater Target Cleanup Standards (TCS)	
Contaminant	TCS (ug/L)
Tetrachloroethene	5
Trichloroethene	5
cis-1,2-Dichloroethene	70
trans-1,2-Dichloroethene	100
1,1-Dichloroethene	34
1,1-Dichloroethane	798
Vinyl Chloride	2
Chloroethane	2,100
Chloroform	0.19
Chlorobenzene	100
Benzene	5

Table E-1: Groundwater Target Cleanup Standards (TCS)	
Contaminant	TCS (ug/L)
Toluene	1,000
Ethylbenzene	700
Xylenes (total)	10,000
Naphthalene	6.2
1,4-Dioxane	6.1
Source: 2011 Revised CMS Report, Table 3-1 (“Perched/Accumulated Water Exceeding Target Cleanup Standards”).	

Environmental Covenant: The Permittee must establish and implement Environmental Covenants for the Blazer Property and the portion of the Facility property owned by Jaxon Energy LLC to manage and mitigate exposure to contaminated soils and groundwater exceeding the Target Cleanup Standards (as defined in Table 3-1 of the 2011 Revised CMS Report). The Environmental Covenants will: 1) compel continuation of commercial/industrial land use on the Facility property; 2) prevent the use of groundwater, and the installation of wells (with the exception of monitoring wells as part of Corrective Measures required by this Permit) anywhere on the Facility property; 3) require continued operation and maintenance of the VI mitigation system at the Facility’s existing building pursuant to a plan approved by the EPA; 4) prohibit any new construction of habitable buildings, and any subsurface demolition, excavation, drilling or other subsurface activities, without the EPA’s prior approval; and 5) require the implementation of the Site Management Plan, described below, in the performance of any subsurface activities that are approved by the EPA, as well as implementation of the Inspection and Maintenance Activities described below. Once the Environmental Covenants are created and executed, the restrictions must be posted on-site.

Site Management Plan (SMP): If future subsurface demolition, excavation, drilling, or other subsurface activities are approved by the EPA at the Facility pursuant to the Environmental Covenants, the Permittee shall implement the SMP, dated January 2008 and included as Appendix D to the 2011 Revised CMS Report (or any other new or amended SMP that is subsequently approved by the EPA in accordance with Condition II.M. of this Permit). The SMP outlines site management procedures to facilitate a safe and environmentally responsible framework for subsurface disturbance activities at the Facility. A permanent copy of the SMP must be maintained at the Facility. The SMP must include the following components:

- a summary of current site conditions and risk evaluations;
- identification of typical current and/or future subsurface disturbance activities that may be conducted at the Facility;
- identification of personnel and contractor responsibilities under the SMP;
- methods to mitigate potential risks to worker health and the environment during subsurface disturbance and maintenance activities; and
- the establishment of general procedures and management guidelines for the proper handling/disposal of soils and or groundwater, and monitoring protocols and contingencies for worker safety and the protection of public health and the environment.

Inspection and Maintenance Activities: In addition to MNA, the Environmental Covenant, and the SMP, the Permittee must implement inspection and maintenance requirements at the Facility. The Permittee must inspect the Facility on a quarterly basis and maintain the property fence, gate, signs, concrete surface barrier and asphalt paving, gravel, and landscaped grasses. Posted signs must indicate that Corrective Measures are in place at the Facility, and list both the covenant-based restrictions (once in effect) and the SMP restrictions. The Permittee must document quarterly inspections as part of the Corrective Measures Implementation and Effectiveness Report submitted to the EPA pursuant to Condition II.J.4.b. of this Permit.

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