

State of Georgia

Department of Natural Resources





HAZARDOUS WASTE FACILITY PERMIT

Permit No. HW-029(T&D)-03

Facility I.D. No.

GAD000821934

In accordance with the provisions of the Georgia Hazardous Waste Management Act and the Rules, Chapter 391-3-11, (as amended through June 7, 2015), adopted pursuant to that Act,

Arch Wood Protection, Inc.

DRAFT

is issued a Permit for the following:

- · Treatment of hazardous waste in a miscellaneous unit (J-Mate sludge dryer).
- · Post-closure care of Regulated Units No. 2 and No. 3.
- · Corrective action for contaminated soil and groundwater.

at the following location:

1579 Koppers Road Conley, Georgia 30288

This Permit is conditioned upon compliance with all provisions of the Georgia Hazardous Waste Management Act, the Rules, Chapter 391-3-11 (as amended through June 7, 2015) adopted pursuant to that Act, and any other condition of this Permit.

This Permit is subject to revocation, suspension, modification or amendment by the Director for cause including evidence of noncompliance with any of the above; or for any misrepresentation made in the application(s) dated **November 2014** supporting data entered therein or attached thereto, or any subsequent submittals or supporting data; or for failure to disclose fully all relevant facts; or when the facility poses a threat to the environment or the health of humans.

This Permit is further subject to and conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached page(s), which page(s) are a part of this Permit.

Permit	Issuance Date:
Permit	Termination Date:

Director

Environmental Protection Division

Arch Wood Protection, Inc., a Lonza Company, Conley, Georgia, GAD000821934 is hereinafter

referred to as the Permittee.

SECTION I. GENERAL PERMIT CONDITIONS

I.A. Scope and Effect of Permit

- I.A.1. The Permittee is allowed to treat, store, and dispose of hazardous waste only in accordance with the conditions of the permit. Any hazardous waste treatment, storage or disposal not specifically authorized in this permit is prohibited. The Permittee must comply with the Georgia Hazardous Waste Management Act and the Georgia Rules for Hazardous Waste Management, Chapter 391-3-11, which Rules include certain portions of the Federal Hazardous Waste Regulations (found at 40 CFR 260-266, 268, 270, 273, 279, and 124). Where a citation to the Federal Regulations is made in this permit, it refers to the specific regulations adopted by the Environmental Protection Division (EPD) of the Georgia Department of Natural Resources.
- I.A.2. The issuance of the permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.
- I.A.3. Compliance with this permit does not constitute a defense to any action brought by the Director under Section § 12-8-75, "Powers of Director in situations involving imminent and substantial endangerment to the environment or to public health," of the Georgia Hazardous Waste Management Act, O.C.G.A. §12-8-75, as amended.
- I.A.4. Nothing in this permit shall be construed to preclude the institution of any legal action under Section 3008 of the Federal Resource Conservation and Recovery Act (RCRA) or under the Georgia Hazardous Waste Management Act, O.C.G.A. §12-8-81 through §12-8-82, as amended.
- I.A.5. This permit may be modified, revoked and reissued, or terminated for cause as specified in Rule 391-3-11.11(7) and 40 CFR 270.41, 270.42, 270.43, 270.50(d) and 270.51(d). 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 of any permit condition.
- I.A.6. The provisions of the permit are severable, and if any provision of the permit or the application of any provision of the permit to any circumstance is held

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invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

I.B. Management Requirements

- I.B.1. The Permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility or of any planned changes in the process generating the hazardous waste which changes might affect the performance of the permitted facility.
- I.B.2. The Permittee shall maintain at the facility, the following documents and amendments, revisions and modifications to these documents:
 - I.B.2.a. Complete copy of the permit and permit application, including all amendments, revisions, and modifications;
 - I.B.2.b. Post-closure care plans;
 - I.B.2.c. Operating record as required by 40 CFR 264.73;
 - I.B.2.d. Inspection schedule and log;
 - I.B.2.e. Corrective action plan;
 - I.B.2.f. Groundwater sampling and analysis plan;
 - I.B.2.g. Cost estimate for facility post-closure care and corrective action;
 - I.B.2.h. Proof of financial assurance for post-closure care and corrective action as required by the Georgia Hazardous Waste Management Act, O.C.G.A. §12-8-68, as amended;
 - I.B.2.i. Any records required under 40 CFR 264.1(j)(13); and
 - I.B.2.j. Records from all groundwater monitoring wells and associated groundwater surface elevations.
- I.B.3. All amendments, revisions and modifications to any plan or cost estimates required by this permit shall be submitted to the Director for approval and permit modification as required by all applicable Rules.
- I.B.4. When the Permittee becomes aware that the Permittee failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Director, the Permittee shall promptly submit corrected facts or information.
- I.B.5. The Permittee shall at all times properly operate and maintain all facilities and systems of treatment, control, etc. (and related appurtenances), which are installed and/or used by the Permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes

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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 compliance with the conditions of the permit.

I.B.6. The Permittee may not commence treatment, storage or disposal of hazardous waste at any new or modified portion of the facility or corrective action for contaminated groundwater until the Permittee has submitted to the Director by certified mail, or hand delivery, a letter signed by the Permittee and a registered professional engineer or when appropriate, registered professional geologist stating that the facility has been constructed or modified in compliance with the permit where appropriate; and the Director has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit; or the Director has either waived the inspection, or has not within 15 days notified the Permittee of his or her intent to inspect.

I.C. Monitoring and Reporting

- I.C.1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from Appendix I of 40 CFR Part 261. Laboratory methods must be those specified in the most recent editions of Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW 846; or Standard Methods for the Examination of Water and Wastewater; (or an equivalent method as specified in the Waste Analysis Plan). Sampling and analyses of groundwater samples shall be conducted in accordance with methods and procedures acceptable to the Director.
- 1.C.2. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this permit, the certification required by Condition I.G. and 40 CFR 264.73(b)(9), 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, or record. These periods are automatically extended during the course of any unresolved enforcement action regarding this facility and also may be extended at any time at the Director's discretion.

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I.C.3. The Permittee shall maintain records for all groundwater monitoring wells and associated groundwater surface elevations, including groundwater flow rate and direction throughout the post closure period.

- I.C.4. Records of monitoring information shall include:
 - I.C.4.a. The date, exact place, and time of sampling or measurements;
 - I.C.4.b. The individual(s) who performed the sampling or measurements;
 - I.C.4.c. The date(s) analyses were performed;
 - I.C.4.d. The individual(s) who performed the analyses;
 - I.C.4.e. The analytical techniques or methods used; the method of sample preservation; and quality assurance methods; and
 - I.C.4.f. The results of such analyses and measurements presented in a table and/or figure format.
- I.C.5. The Permittee shall report to the Director or his representative orally within twenty-four (24) hours from the time the Permittee becomes aware of any circumstances resulting from the operation of the hazardous waste management facility (including periods of noncompliance) which may endanger human health or the environment, including but not limited to:
 - I.C.5.a. Release of any hazardous waste, hazardous waste constituents, or hazardous constituents that may cause an endangerment to public drinking water supplies;
 - I.C.5.b. Release or discharge of hazardous waste, hazardous waste constituents, or hazardous constituents or a fire or explosion which could threaten human health or the environment outside the facility. The description of the occurrence shall include:
 - I.C.5.b.i. Name, address and telephone number of the owner or operator;
 - I.C.5.b.ii. Name, address and telephone number of facility;
 - I.C.5.b.iii. Date, time and type of incident;
 - I.C.5.b.iv. Name and quantity of materials involved;
 - I.C.5.b.v. The extent of injuries, if any;
 - I.C.5.b.vi. An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and
 - I.C.5.b.vii. Estimated quantity and disposition of recovered material that resulted from the incident.

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I.C.6. Within fifteen (15) days of becoming aware of any reportable incident as in Condition I.C.5. above, which may endanger human health or the environment, the Permittee shall submit a written report of the incident covering the following:

- I.C.6.a. Description of occurrence as in Condition I.C.5 above;
- I.C.6.b. Cause of occurrence;
- I.C.6.c. Period of occurrence, including exact dates and times;
- I.C.6.d. Actions taken in response to the occurrence;
- I.C.6.e. Time to which occurrence expected to continue (if not already corrected);
- I.C.6.f. Additional measures planned to correct the occurrence (if not already corrected), and a schedule of those actions; and
- I.C.6.g. Steps taken or planned to reduce, eliminate, and prevent recurrence.
- I.C.7. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than fourteen (14) days following each schedule date.
- I.C.8. The Permittee shall report instances of non-compliance, other than those described in Conditions I.C.5 and I.C.7, semi-annually on July 15 (covering January 1 -June 30) and January 15 (covering July 1 December 31). The report shall cover the information requested in Condition I.C.5 for each incident.
- I.C.9. All reports or other information requested by the Director shall be signed and certified according to the requirements in 40 CFR 270.11.
- I.C.10. The Permittee shall immediately notify the Division through the Department of Natural Resources Emergency Operations Center of any spill or release of oil or a hazardous material as soon as the Permittee knows of the spill or release, as required by O.C.G.A. §12-4-3.
- I.C.11. If a significant discrepancy in a manifest [as defined in 40 CFR 264.72(b)], is discovered, the Permittee must attempt to reconcile the discrepancy. If not resolved within fifteen (15) days, the Permittee must submit a Manifest Discrepancy report, including a copy of the manifest, to the Director in accordance with 40 CFR 264.72.

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I.C.12. Monitoring results shall be reported at intervals, as stated in Condition IV.F.2.

I.D. Responsibilities

- I.D.1. <u>Right of Entry.</u> The Permittee shall allow the Director of EPD, the Regional Administrator of EPA, and/or their authorized representatives, agents, or employees, upon the presentation of credentials and other documents as may be required by law to:
 - I.D.1.a. Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
 - I.D.1.b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
 - I.D.1.c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
 - I.D.1.d. Sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Georgia Hazardous Waste Management Act, any substances or parameters at any location.
 - I.D.1.e. Follow the Site safety requirements, as required by the Site contact, upon entry to the Site.
- I.D.2. <u>Transfer of Permits</u>. This permit is not transferable to any persons except after notice to the Director. This permit may be transferred to a new owner or operator only if it is modified or revoked and reissued pursuant to 40 CFR 270.40(b) or 270.41(b)(2). Before transferring ownership or operation of the facility during its operating life or during its post-closure care period, the Permittee shall notify the new owner or operator in writing of the requirements of 40 CFR 264, 268 and 270.
- I.D.3. <u>Duty to Comply.</u> The Permittee shall comply with all conditions of this permit, except to the extent and for the duration such non-compliance is authorized by an emergency permit. Any other non-compliance with this permit constitutes a violation of the Georgia Hazardous Waste Management Act and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application.

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I.D.4. <u>Duty to Reapply.</u> If the Permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the Permittee must submit a complete application for a new permit at least 180 days before this permit expires. If the facility has not met the investigation and remedial requirements for releases, pursuant to 40 CFR 264.101 and this permit; and has not met the Environmental Protection Standards requirements for three (3) consecutive years, the Permittee must, within one hundred eighty (180) days before expiration date of this permit, submit a complete application for renewal of this permit. Pursuant to 40 CFR 270.51, this permit and all conditions herein will remain in effect beyond the permit's expiration date if the Permittee has submitted a timely and complete application for a new permit and, through no fault of the Permittee, the Director has not issued a new permit on or before the expiration date of this permit.

- I.D.5. Need to Halt or Reduce Activity Not a Defense. It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- I.D.6. <u>Duty to Mitigate</u>. The Permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out all reasonable measures to minimize any adverse impact on the environment or human health resulting from non-compliance with this permit.
- I.D.7. <u>Duty to Provide Information</u>. The Permittee shall furnish to the Director, within a reasonable time, any relevant information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with the permit. The Permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.
- I.D.8. <u>Anticipated Non-Compliance</u>. The Permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in non-compliance with permit requirements.
- I.D.9. Reporting Planned Changes. The Permittee shall give notice to the Director of any planned physical alterations or additions which impact any SWMU's, AOC's or the areas contaminated by them, including voluntary corrective measures.

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I.E. Definitions

For purposes of this permit, terms used herein shall have the same meaning as those in 40 CFR 124, 260 through 268, 270 and 279, unless this permit specifically provides otherwise. Where terms are not defined in the regulations or the permit, 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.

- I.E.1. Area of Concern (AOC) for the purpose of this permit includes any area having a probable release of a hazardous waste, hazardous waste constituent, and/or hazardous constituent that is not from a Solid Waste Management Unit and is determined by the Director to pose a current or potential threat to human health or the environment. Such areas of concern may require investigations and remedial action as required under the Georgia Hazardous Waste Management Act, §12-8-60, et.seq. and 40 CFR 270.32(b)(2) in order to ensure adequate protection of human health and the environment.
- I.E.2. <u>Background</u> for the purposes of this permit is the naturally occurring concentration of a constituent in soils in the immediate vicinity of the Facility in areas not affected by the Facility. For other environmental media, Background is the concentration of a constituent upgradient, upstream, or upwind of the Facility as is applicable for the environmental media.
- I.E.3. <u>Contamination</u> for the purposes of this permit refers to the presence of any hazardous waste, hazardous waste constituents or hazardous constituents in a concentration which exceeds the naturally occurring concentration of that waste or constituent in the immediate vicinity of the facility (in areas not affected by the facility).
- I.E.4. Corrective Action for prior or continuing releases from solid waste management units (SWMUs) or AOCs, as well as for other releases as described in Condition I.E.15. below, for the purposes of this permit shall be as specified in 40 CFR 264.101 and may include "corrective action" as provided for in 40 CFR 264.100, and other remedial actions for any environmental media as deemed appropriate by the Director to protect human health or the environment. The terms "releases" and "other releases", when used in reference to corrective action requirements of this permit, shall not include releases that the Permittee can satisfactorily demonstrate to the Director have been fully remediated within thirty (30) days of discovery.

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I.E.5. Corrective Action Management Unit (CAMU) for the purposes of this permit includes any area within a facility that is designated by the Director under 40 CFR Part 264 Subpart S, for the purpose of implementing corrective action requirements under 40 CFR 264.101. A CAMU shall only be used for the management of remediation waste pursuant to implementing such corrective action requirements at the facility.

- I.E.6. Extent of Contamination for the purposes of this permit is defined as the horizontal and vertical area/volume in which the concentrations of hazardous waste, hazardous waste constituent or hazardous constituents in the environmental media being investigated are above method detection limits (provided the estimated quantitation limit, as defined in the most recent version of SW-846 or reporting limit is below the appropriate screening level), or Background concentrations, whichever is appropriate as determined by the Director.
- I.E.7. Facility for purposes of this Permit includes all contiguous land and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (e.g., one or more landfills, surface impoundments, or combination of them). For the purposes of implementing corrective action under 40 CFR 264.101, a facility includes all contiguous property under control of the owner or operator seeking a permit under the Georgia Hazardous Waste Management Act.
- I.E.8. <u>Hazardous Constituent</u> for the purposes of this permit are those substances listed in 40 CFR Part 261 Appendix VIII and 40 CFR Part 264 Appendix IX, as revised or superseded.
- I.E.9. <u>Hazardous Waste Constituent</u> for the purposes of this permit means a constituent that caused the USEPA Administrator to list the hazardous waste in 40 CFR 261, Subpart D, or a constituent listed in Table 1 of 40 CFR 261.24.
- I.E.10. <u>Hazardous Waste</u> for the purposes of this permit means a hazardous waste as defined in 40 CFR 261.3, and newly defined hazardous waste by USEPA or EPD subsequent to the issuance of this permit.
- I.E.11. <u>Interim Measures</u> for the purposes of this permit are actions necessary to minimize or prevent the migration of contamination or limit actual or

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potential human and environmental exposure to contamination while long-term corrective action remedies are evaluated and, if necessary, implemented.

- I.E.12. <u>Landfill</u> for the purposes of this permit includes any disposal facility or part of a facility where hazardous waste is placed in or on the land which is not a pile, a land treatment facility, surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground mine, or a cave.
- I.E.13. <u>Land Disposal Facility</u> for the purposes of this permit is a facility (and all contiguous property under control of the owner or operator) that uses a surface impoundment, landfill, land treatment, waste pile, or miscellaneous unit to manage or dispose of hazardous waste pursuant to §12-8-66 of the Georgia Hazardous Waste Management Act, as amended, and §3004 of RCRA, as amended.
- I.E.14. Qualified Groundwater Scientist for the purposes of this permit means a scientist or engineer who has received a baccalaureate or post-graduate degree in the natural sciences or engineering and has sufficient training and experience in groundwater hydrology and related fields, as demonstrated by current State of Georgia registration and completion of accredited university courses, that enable that individual to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport.
- I.E.15. <u>Release</u> for the purposes of this permit includes any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment of any hazardous waste, hazardous waste constituents or hazardous constituents.
- I.E.16. Remediation Waste for the purposes of this permit includes all solid and hazardous wastes, and all media (including groundwater, surface water, soils, and sediment) and debris, which contain listed hazardous wastes or which themselves exhibit a hazardous waste characteristic, that are managed for the purpose of implementing corrective action requirements under 40 CFR 264.101 and §3008(h) of RCRA. For a given facility, remediation wastes may originate only from within the facility boundary, but may include waste managed in implementing §3004(v) or §3008(h) of RCRA for releases beyond the facility boundary.
- I.E.17. <u>Solid Waste Management Unit (SWMU)</u> for the purposes of this permit includes, but is not limited to, any landfill, surface impoundment, waste pile,

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land treatment unit, incinerator, injection well, tank (including storage, treatment, and accumulation tanks), container storage unit, wastewater treatment unit, including all conveyances and appurtenances used in waste management or storm water handling, elementary neutralization unit, transfer station, or recycling unit from which hazardous waste, hazardous waste constituents or hazardous constituents might migrate, irrespective of whether the units were intended for the management of solid and/or hazardous waste. SWMUs include areas that have been contaminated by routine and systematic releases of hazardous waste, hazardous waste constituents or hazardous constituents.

- I.E.18. <u>Staging Pile</u> for the purposes of this permit includes temporary storage for mixing, sizing, blending, or other similar physical operations as long as they are intended to prepare the waste for subsequent management treatment.
- I.E.19. <u>Treatment</u> for the purposes of this permit refers to any method, technique, or process, including neutralization, designed to change the physical, chemical or biological character or composition of any hazardous waste so as to neutralize such waste, or so to recover energy or material resources from the waste, or so as to render such waste non-hazardous, or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage or reduced in volume.
- I.E.20. Temporary Units (TU) for the purposes of this permit includes any temporary tanks, and/or container storage areas used solely for treatment or storage of hazardous remediation waste during remediation activities required under 40 CFR 264.101. Designated by the Director, such units must conform to specific standards, and may only be in operation for a period of time as specified in this permit.
- I.F. <u>Conditions Related to Compliance with General Facility Standards</u> (40 CFR 264 Subparts B, C, D, E, G, H)
 - I.F.1. The Permittee must follow the procedures and plans described in detail in the Part B Permit Application dated October 23, 2014, as revised or amended, which are hereby incorporated by reference and include at least the following:

I.F.1.a. Post-Closure Plan; Section I
I.F.1.b. Groundwater Sampling and Section E
Analysis Plan (Rev. 2/15/2016); and

I.F.1.c. Corrective Action Plan (Rev. 4/28/2008). Section E

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I.F.2. The following activities must be carried out as prescribed in 40 CFR 264 Subparts B, C, D and E and in accordance with Sections E and I of the permit application, as amended:

- I.F.2.a. Security 40 CFR 264.14(b) and (c);
- I.F.2.b. Repairs and Inspection Log 40 CFR 264.15(c) and (d);
- I.F.2.c. Personnel Training 40 CFR 264.16;
- I.F.2.d. Design and Operations 40 CFR 264.31;
- I.F.2.e. Testing and Maintenance of Equipment 40 CFR 264.33;
- I.F.2.f. Access to Communications or Alarm Systems 40 CFR 264.34;
- I.F.2.g. Reports 40 CFR 264.73, 264.74, 264.75 and 264.77;
- I.F.2.h. Operating Record 40 CFR 264.73; and
- I.F.2.i. Disposition of Records 40 CFR 264.74.
- I.F.3. The following activities must be carried out as prescribed in 40 CFR 264 Subpart G and H and in accordance with Section I of the permit application, as revised or amended, and Rule 391-3-11-.05:
 - I.F.3.a. Post-closure care and use of property 40 CFR 264.117;
 - I.F.3.b. Post-closure plan, amendment of plan 40 CFR 264.118;
 - I.F.3.c. Notice to local land authority and in deed to property 40 CFR 264.119 and 264.120; and
 - I.F.3.d. Financial assurance for post-closure and corrective action. Continuous compliance with 40 CFR 264.145 must be maintained by the Permittee for the amount of the cost estimate for post-closure and corrective action as required by 40 CFR 264.144 until released by the Director as provided in 40 CFR 264.145(i). Continuous compliance with Rule 391-3-11-.05 is also required.
- I.F.4. The Permittee must comply with 40 CFR 264.148 whenever necessary.
- I.G. Special Conditions Applicable to Entire Facility
 - I.G.1. <u>Land Disposal Restrictions</u>: 40 CFR Part 268 identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances under which an otherwise prohibited waste may continue to be placed on or in a land treatment, storage or disposal unit. The Permittee shall maintain compliance with the requirements of 40 CFR Part 268. Where the Permittee has applied for an extension, waiver or variance under this Part, the Permittee shall comply with all restrictions on land disposal under this Part once the

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effective date for the waste has been reached pending final approval of such application.

I.G.2. Closure: The Permittee must notify the Director in writing at least thirty (30) days or as soon as possible prior to the date on which the Permittee expects to begin final closure of the facility or partial closure of any permitted hazardous waste management unit. Within sixty (60) days of completion of any partial closure of the permitted treatment areas, or miscellaneous units, and within sixty (60) days of the completion of final closure, the owner or operator must submit to the Director, by registered mail, a certification that the hazardous waste management unit has been closed in accordance with the approved closure plan. The certification must be signed by an independent registered professional engineer. Documentation supporting the independent, registered professional engineer's certification must additionally be furnished to the Director at that time.

SECTION II. TREATMENT IN MISCELLANEOUS UNIT (SLUDGE DRYER)

II.A. General: The conditions in this section apply to the arsenic acid sludge dryer located in the Arsenic Acid Plant and described in Section D-8 of the Part B Permit Application dated October 23, 2014, as revised or amended. Treatment activities are expressly limited to the arsenic acid sludge dryer.

II.B. Conditions Related Solely to Permitted Treatment Unit

- II.B.1. The Permittee shall operate, monitor, inspect, maintain and if necessary perform post-closure care of this unit in accordance with Section D-8 of the Part B Permit Application dated October 23, 2014, as revised or amended and 40 CFR 264.600.
- II.B.2. The Permittee is authorized to treat a maximum of 500 gallons per day of hazardous waste in the arsenic acid sludge dryer, as identified in Section A of the Part B Permit Application dated October 23, 2014, as revised or amended.
- II.B.3. The Permittee is required to maintain a monthly record of hazardous waste treated in the arsenic acid sludge dryer.
- II.B.4.The Permittee is required to maintain the arsenic acid sludge dryer concrete pad such that it is free of cracks and gaps.

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II.B.5. The Permittee is required to immediately clean-up any arsenic acid sludge released from the sludge dryer, including sludge released during the loading or unloading of the sludge dryer.

SECTION III. POST CLOSURE CARE FOR REGULATED UNITS NO. 2 and NO. 3

III.A. Unit Identification:

The Permittee shall maintain the hazardous waste Regulated Units identified in Figure B-7 of the Permit Application dated October 23, 2014, as revised or amended.

III.B. Waste Identification:

The units and their associated waste streams are fully described in the Part A and Section C of the Permit Application dated October 23, 2014, as revised or amended.

III.C. Monitoring and Inspection:

The Permittee shall follow and document inspections performed in accordance with Sections E and I of the permit application, as revised and as required by 40 CFR 264.15. Inspections shall include the operation and maintenance of all corrective action equipment at the facility.

III.D. Post Closure:

The Permittee shall perform post-closure care of the Regulated Units in accordance with the post-closure care plan in Section I-10 of the Permit Application of October 23, 2014, as revised or amended and as required by 40 CFR 264.117 through 264.120. The Permittee shall submit the notices required for post-closure care in accordance with Section I-11 of the Post-Closure Care Application of October 23, 2014, as revised or amended, and 40 CFR 264, Subpart G, and, shall provide any necessary financial assurance as per 40 CFR 264, Subpart H.

III.E. Post Closure Care Period:

The facility's post closure care/compliance period will continue until an adequate site specific demonstration can be made that the contamination is no longer poses a threat to human health and the environment, pursuant to 40 CFR 264.117(a)(2)(ii).

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SECTION IV. GROUNDWATER MONITORING for REGULATED UNITS

IV.A. Well Location and Construction

The Permittee shall install and/or maintain a groundwater monitoring system to comply with the requirements of 40 CFR 264.95, 264.97, and 264.100 as specified below:

IV.A.1. Point of Compliance Wells:

Regulated Unit 2: MW-POC-RU2-1A, MW-POC-RU2-1B, MW-POC-RU2-1C, MW-POC-RU2-2A, MW-POC-RU2-2B, MW-POC-RU2-2C.

Regulated Unit 3: MW-POC-RU3-1A, MW-POC-RU3-1B, MW-POC-RU3-1C, MW-POC-RU3-2A, MW-POC-RU3-2B, MW-POC-RU3-3B.

IV.A.2. Background Well: MW-23.

- IV.A.3. Downgradient Wells: MW-5, MW-6A, MW-6B, MW-6C, MW-8A, MW-8B, MW-10A, MW-10B, MW-11A, MW-11B, MW-12A, MW-13A, MW-15A, MW-15B, MW-17, MW-22A, MW-22B, MW-24, MW-25.
- IV.A.4.Extraction Wells: PW-01, PW-03, PW-04, PW-05, PW-06, PW-07, PW-08, and PW-09.
- IV.A.5. The Permittee shall retain, mark and maintain in good working order, those groundwater monitoring wells and any additional wells that may be required by Condition IV of the permit.
- IV.A.6. The Permittee shall install and maintain additional groundwater wells as necessary or as specified by the Director to ensure that, at all times, the current groundwater monitoring system in IV.A. is adequate to assess changes in the rate and extent of any plume of contamination, or to access the effectiveness of corrective action or comply with 40 CFR 264.95, 264.97, 264.99 and 264.100. If changes are required to the groundwater monitoring system through this Section of the permit, the Permittee shall submit a permit modification request following procedures specified in 40 CFR 270.42. Within thirty days of notification that additional wells are required, the Permittee shall submit for approval a plan detailing the modification of the

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existing monitoring system. This plan shall include, but is not limited to, the following:

- VI.A.6.a. Well construction techniques including casing depths and proposed total depth of well(s);
- VI.A.6.b. Well development method(s);
- IV.A.6.c. A complete analysis of well construction materials;
- IV.A.6.d. A schedule of implementation for construction; and
- IV.A.6.e. Provisions for determining the lithologic character, hydraulic conductivity and grain size distribution for the applicable aquifer unit(s) at the location of the new well(s).

IV.B. Groundwater Protection Standards

- IV.B.1. The groundwater protection standard as required under 40 CFR Part 264.92 shall consist of Table 1, which lists the hazardous constituents and their respective concentration limits as required under 40 CFR 264.93 and 40 CFR 264.94.
- IV.B.2. The groundwater protection standard applies to all hazardous waste, hazardous waste constituent, or hazardous constituent releases as deemed appropriate by the Director to protect public health and the environment. The Permittee is required to submit the entire analytical report for all required analytical data.

IV.C. Compliance Period

- IV.C.1. The compliance period for Regulated Units No. 2 and No. 3 under 40 CFR 264.96 shall continue until the end of the post-closure period as defined in 40 CFR 264.117 and Condition III.E. of the permit
- IV.C.2. If the Permittee is engaged in a corrective action program at the end of the compliance period as defined in Condition IV.C.1., the compliance period is extended as defined in 40 CFR 264.117. Should the groundwater protection standard have not been exceeded for a period of three (3) consecutive years, and corrective action, as required under 40 CFR 264.100 has been terminated, as required by 40 CFR 264.96(c), the Permittee may request the Director to shorten the compliance period in accordance with 40 CFR 264.117.

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IV.D. Groundwater Monitoring Program

- IV.D.1. The Permittee shall maintain a groundwater monitoring program to demonstrate the effectiveness of the corrective action program required under 40 CFR 264.100 (and 40 CFR 264.101 as related to other releases intersecting any plume emanating from the regulated units). Groundwater monitoring shall be conducted in conformance with the requirements of 40 CFR 264.100(d) and Condition IV.D. of the permit.
- IV.D.2. Continuing through the compliance period, the Permittee shall determine the concentration of all constituents specified in Table 1 from all wells listed in Condition IV.A.1 and IV.A.3 semi-annually.
- IV.D.3. The Permittee shall determine background concentrations in upgradient well MW-23 for all parameters specified in Table 1 of the permit semi-annually. If background well(s) no longer represent backgroundwater conditions for the facility, the Permittee shall submit a plan to install new background wells.
- IV.D.4. The Permittee shall sample one Point of Compliance well of those listed in Condition IV.A.1 of the permit annually for all constituents listed in Appendix IX of 40 CFR Part 264. The sample should be rotated among the A level POC wells. The results of any Appendix IX sampling must be submitted to EPD within 120 days after the sampling event. If the Permittee finds Appendix IX constituents in the groundwater which are not listed in Table 1 of this permit and are above background conditions, then the Permittee may resample within one month and repeat the Appendix IX analysis. If the second analysis confirms the presence of new constituents, the Permittee must report the concentration of these additional constituents to EPD within seven days after the Permittee receipt of the second analysis and submit a request to EPD for a permit modification for addition of those constituents to Table 1 of this permit. If the Permittee chooses not to resample, then the Permittee must report the concentrations of these additional constituents to EPD within seven days after Permittee receipt of the initial analysis and submit a request for a modification for addition of those additional constituents to Table 1 of the Permit.
- IV.D.5. The groundwater monitoring program must include a determination of the groundwater surface elevations at all monitoring and extraction wells identified in Condition IV.A. of the permit each time groundwater is samples pursuant to 40 CFR 264.97(f).

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IV.D.6. The Permittee shall determine the groundwater flow rate and direction semiannually.

IV.D.7.Compliance with the groundwater protection standard as defined under Condition IV.B., will be based upon groundwater monitoring data, obtained under Condition IV.D., that indicate all constituents listed in Table 1 of the permit no longer exceed the groundwater protection standard at the point of compliance or anywhere within an identified plume of contamination as defined by §264.100(e)(1) and (2). Compliance determination shall be performed in accordance with the statistical procedure of 40 CFR §264.97(h) and (i) and Section E of the Permit Application dated October 23, 2014, as revised or amended.

IV.E. Sampling and Analysis Procedures

The Permittee shall use the following techniques and procedures when obtaining and analyzing samples from the groundwater monitoring wells described in Condition IV.D. in order to provide a reliable indication of the quality of the groundwater as required under 40 CFR 264.97(d) and (e);

- IV.E.1. Samples shall be collected, preserved, and shipped (when shipped off-site for analysis) in accordance with the procedures specified in the Sampling and Analysis Plan in Attachment E-2 of the permit application, as amended or as specified in the current EPA Manual SW-846.
- IV.E.2. Samples shall be analyzed as specified in the Sampling and Analysis Plan in Attachment E-2 of the permit application, as amended or as specified in the current EPA Manual SW-846.
- IV.E.3. Samples shall be tracked and controlled using the chain of custody procedures specified in the Sampling and Analysis Plan in Attachment E-2 of the permit application, as amended or as specified in the current EPA Manual SW-846.

IV.F. Reporting, Recordkeeping, and Response

- IV.F.1. The Permittee shall enter all monitoring, testing, and analytical data obtained pursuant to Section IV of the permit into the operating record, as required by 40 CFR 264.73(b)(6).
- IV.F.2. The Permittee shall submit a report to the Director on the effectiveness of the

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corrective action program semi-annually as required by 40 CFR 264.100(g) to include all monitoring, testing and analytical data obtained pursuant to Section IV of the permit. These reports are due by January 31 and July 31 of each year.

IV.F.3. Records of groundwater monitoring information shall include:

- IV.F.3.a. The date, exact place and time of sampling or measurement;
- IV.F.3.b. The individual(s) who performed the sampling;
- IV.F.3.c. The depth to the groundwater surface measured to the nearest 0.01 foot:
- IV.F.3.d. The depth to the well bottom measured to the nearest 0.01 foot;
- IV.F.3.e. The amount of water purged from the well;
- IV.F.3.f. The indicator parameters of the sampled groundwater at each well;
- IV.F.3.g. Complete chain-of-custody forms;
- IV.F.3.h. The date(s) analyses were performed;
- IV.F.3.i. The individual(s) who performed the analyses;
- IV.F.3.j. The analytical techniques or methods used; the method of sample preservation; and the quality assurance methods; and
- IV.F.3.k. The results of such analyses.
- IV.F.4. All reports and other documents containing geologic interpretation must be signed and affixed with the seal of a currently registered Professional Geologist. The Professional Geologist must take an active role in the preparation of such reports or other documents.

SECTION V. CORRECTIVE ACTION PROGRAM for the REGULATED UNITS

V.A. <u>General</u>: The Permittee shall conduct the corrective action program set forth in the Permit Application dated October 23, 2014, as revised or amended, the most current EPD approved Corrective Action Plans, as well as any subsequent modifications of the Plans pursuant to Condition V.C. of the permit.

V.B. Conditions Related to Regulated Units

V.B.1. The Permittee shall conduct a corrective action program for contamination defined as originating from Regulated Units No. 2 and No. 3., to remove or treat in place any hazardous constituents that exceed concentration limits in Table 1 in groundwater between the point of compliance and the downgradient facility property boundary as required under 40 CFR

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264.100(e)(1), and beyond the facility boundary as required under 40 CFR 264.100(e)(2), unless the Permittee can demonstrate to the satisfaction of the Director that despite the Permittee's best efforts was unable to obtain the necessary permission to undertake such action beyond the facility property boundary.

- V.B.2. The Permittee is not relieved of all responsibility to clean up a release that has migrated beyond the facility's boundary where off-site access is denied as required under 40 CFR 264.100(e)(2).
- V.B.3. The corrective action program must be operated in a manner so as to preclude the contaminant plume from migrating off-site.
- V.B.4. The Permittee shall treat, store and dispose of all contaminated groundwater in accordance with all applicable federal, state and local laws.
- V.B.5. If the groundwater protection standard is met during the compliance period, the Permittee may request EPD to allow the corrective action program to be terminated if the groundwater protection standard is not exceeded for three (3) consecutive years as provided in 40 CFR 264.100(f).

V.C. Permit Modification

- V.C.1. If the Permittee at any time determines that the corrective action program no longer satisfies the requirements of 40 CFR 264.100 or Condition V.B. for releases of hazardous waste constituents, hazardous waste or hazardous constituents that originate from the regulated units, the Permittee must within ninety (90) days submit an application for a permit modification to make any appropriate changes in the program in accordance with 40 CFR 270.41 and 270.42.
- V.C.2. If the Permittee meets or exceeds the requirements of 40 CFR 264.100 and meets the groundwater protection standard at the point of compliance and everywhere within the contaminant plume for three (3) consecutive years the Permittee may submit an application for a permit modification pursuant to 40 CFR 270.42 to terminate corrective action and establish an alternate groundwater monitoring program.

V.D. Duty of Permittee

The Permittee shall assure that groundwater monitoring and corrective action measures necessary to achieve compliance with 40 CFR 264.100 and the

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groundwater protection standard under 40 CFR 264.92 are taken during the compliance period.

SECTION VI. CORRECTIVE ACTION FOR SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN

VI.A. Applicability

- VI.A.1.The requirements of this Section apply to the determination of the need for and subsequent implementation of corrective action for releases from all solid waste management units (SWMUs) and areas of concern (AOCs) contained within the facility property boundary as required by 40 CFR 264.101(a) and, as required by 40 CFR 264.101(c) and §12-8-66 of the Georgia Hazardous Waste Management Act, those extending beyond the facility property boundary. The requirements of this Section apply but are not limited to the following SWMUs and AOCs identified by the "Information Regarding Potential Releases from Solid Waste Management Units" questionnaire dated March 11, 1985, and the RCRA Facility Assessment (RFA) Investigation dated January 31, 1995:
 - VI.A.1.a. The SWMUs and AOCs identified in Appendix A-1 which require no further investigation at this time.
 - VI.A.1.b. The SWMUs and AOCs identified in Appendix A-2 which require corrective action at this time.
 - VI.A.1.c. The SWMUs identified in Appendix A-3 which are regulated units as defined by 40 CFR 264.90 (a)(2).
 - VI.A.1.d. Any additional SWMUs or AOCs discovered after the date of issuance of this permit due to groundwater monitoring, on-going field investigations, environmental audits, and other means.
- VI.B. Notification and Assessment Requirements For Newly Identified SWMUs and AOCs
 - VI.B.1. Within fifteen (15) days of the Permittee's discovery of any SWMU's or AOC's under Condition VI.A.1.d., the Permittee shall notify the Director in writing of such discovery.

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- VI.B.2. The Director shall notify the Permittee in writing of the discovery of any SWMUs or AOCs under Condition VI.A.1.d.
- VI.B.3. Within sixty (60) days of the Permittee's discovery pursuant to Condition VI.B.1. or within sixty (60) days of receipt of the Director's notification under Condition VI.B.2., the Permittee shall submit to the Director the following information for each SWMU or AOC:
 - VI.B.3.a. Location on a topographic map of appropriate scale as required under 40 CFR 270.14(b)(19);
 - VI.B.3.b. Designation of type and function;
 - VI.B.3.c. General dimensions, capacities and structural description (supply any available plans/drawings);
 - VI.B.3.d. Dates of operation;
 - VI.B.3.e. Specification of all wastes that have been managed at/in the SWMU or AOC to the extent available; and
 - VI.B.3.f. All available information pertaining to any release of hazardous waste, hazardous waste constituents, or hazardous constituents (to include groundwater data, soil analyses, air, and/or surface water data).
- VI.B.4. The Director shall review the information submitted pursuant to Condition VI.B.3. of the permit and notify the Respondent in writing as to the need for further investigation, interim measures and/or corrective action as required by Conditions VI.D., VI.E, VI.F., or VI.G.
- VI.C. <u>Notification Requirements for Newly Discovered Releases At Previously Identified</u> SWMUs and AOCs
 - VI.C.1. Within thirty (30) days of the Permittee's discovery of a previously unidentified release(s) from any SWMU or AOC identified under Condition VI.A., the Permittee shall notify the Director in writing of such discovery.
 - VI.C.2. The Director shall notify the Permittee in writing of the discovery of any previously unidentified release(s) from any SWMU or AOC previously discovered under Condition VI.A.
 - VI.C.3. Within ninety (90) days of the date of the Permittee's discovery under Condition VI.C.1. or within ninety (90) days of the date of receipt of the Director's notification under Condition VI.C.2.. the Permittee shall submit to

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the Director a RCRA Facility Investigation Workplan pursuant to Condition VI.F.

VI.D. Verification Investigation

- VI.D.1. Pursuant to Condition VI.B.4., the Director may require the Permittee to submit a Verification Investigation (VI) Workplan in a schedule to be determined by the Director. The VI Workplan shall describe all actions necessary to verify the presence or absence of a release for any SWMU or AOC identified in Condition VI.A. The VI Workplan shall include a schedule of implementation which includes intermediate milestones beginning with the Permittee's receipt of the Director's written approval of the VI Workplan continuing through submission of the VI Report required by Condition VI.D.3.
- VI.D.2. Upon receipt of the Director's written approval of the VI Workplan, the Permittee shall implement the Workplan in accordance with the schedule of implementation contained therein.
- VI.D.3. The Permittee shall submit a VI Report in accordance with the schedule of implementation contained within the approved VI Workplan. The VI Report shall describe all actions taken to verify the presence or absence of releases including all data collected during the VI. The Director shall review the VI Report and notify the Permittee in writing of the need for further investigation, interim measures and/or corrective action pursuant to Conditions VI.E., VI.F. and/or VI.G.

VI.E. Interim Measures (IM)

- IV.E.1. The Permittee may conduct interim measures to contain, remove or treat contamination resulting from releases from any SWMU or AOC as necessary to protect human health and the environment. Such interim measures may be conducted concurrently with any investigations required by this permit.
- VI.E.2. Within thirty (30) days of the Permittee's determination that interim measures are necessary, or within thirty (30) days of receipt of the Director's written notice that interim measures are necessary, the Permittee shall submit to the Director an Interim Measures (IM) Workplan. The IM Workplan shall describe all measures necessary to contain, remove or treat contamination resulting from releases from any SWMU or AOC. The IM Workplan shall include a schedule of implementation which includes intermediate milestones

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beginning with the Permittee's receipt of the Director's written approval of the IM Workplan and continuing through submission of the IM Report required by Condition VI.E.5. of the permit.

- VI.E.3. Upon receipt of the Director's written approval of the IM Workplan, the Permittee shall implement the Workplan in accordance with the schedule of implementation contained therein.
- VI.E.4. The Permittee shall provide written notice to the Director as soon as possible of any planned changes, reductions or additions to the interim measures described in the IM Workplan.
- VI.E.5. The Permittee shall submit an IM Report in accordance with the schedule of implementation contained in the approved IM Workplan. The IM Report shall describe all interim measures taken to contain remove or treat contamination resulting from releases from any SWMU or AOC. The IM Report shall also provide a summary of all data or other information obtained during implementation of the IM Workplan and a summary of the effectiveness of the interim measures in achieving the objective of Condition VI.G. of the permit.

VI.F. RCRA Facility Investigation (RFI)

- IV.F.1. Within ninety (90) days of the effective date of this permit for any SWMU or AOC identified pursuant to Condition VI.A.1.d., and within ninety (90) days of the date of receipt of the Director's written notice pursuant to Conditions VI.B.4., VI.C.3. and/or VI.D.3., the Permittee shall submit to the Director a RCRA Facility Investigation (RFI) Workplan.
- VI.F.2. The RFI Workplan shall provide a description of the specific actions necessary to determine the full nature and extent of releases from any SWMU and AOC identified by Conditions VI.A.1., VI.B.4., VI.C.3. and VI.D.3., including potential migration pathways for those releases (e.g. air, land, surface water, and groundwater), actual or potential receptors and applicable background concentrations. The Permittee must provide sufficient justification that migration through a potential pathway is not likely if a potential migration pathway associated with a release is not included in the Workplan. Such deletions are subject to the approval of the Director.
- VI.F.3. The RFI Workplan shall include a schedule of implementation which includes intermediate milestones beginning with the Permittee's receipt of the

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Director's written approval of the RFI Workplan and continuing through submission of the RFI Report required by Condition VI.F.4. of the permit. Upon approval by the Director the Permittee shall implement the RFI Workplan in accordance with the schedule contained in the approved Workplan.

- VI.F.4. The Permittee shall submit a RFI Report in accordance with the schedule of implementation contained in the approved RFI Workplan. The Report shall provide a summary of all activities undertaken during the RFI to implement the approved Workplan. The Report shall provide a complete description of the nature and extent of all releases evaluated during the RFI including sources, migration pathways, actual or potential receptors and applicable background concentrations. The RFI Report shall address all releases which extend beyond the facility property boundary unless the Permittee demonstrates to the Director's satisfaction that, despite the Permittee's best efforts, the Permittee was unable to obtain permission to undertake actions required by the Workplan, or such action is not necessary to protect public health or the environment.
- VI.F.5. The Director shall review the RFI Report required under Condition VI.F.4. and notify the Permittee in writing of the need for further investigation and/or corrective action as required by Condition IV.G. and 40 CFR 264.101(a) and 40 CFR 264.101(c).
- VI.F.6. Within ninety (90) days of Permittee's receipt of Director's written notice for further investigation referenced in Condition VI.F.5., the Permittee shall submit an addendum to the RFI Workplan to the Director. The addendum shall provide a description of investigation activities that will be conducted to further define the nature and extent of releases from any SWMU and/or AOC.

VI.G. Corrective Action

IV.G.1. Within ninety (90) days of the Permittee's receipt of the Director's written notice referenced in Condition VI.F.5., the Permittee shall submit a Corrective Action Plan (CAP) to the Director. The CAP shall provide a description of the corrective measures to be taken with regard to releases from any SWMU and AOC identified in Condition VI.F.1. The CAP shall be submitted as a request for permit modification in accordance with 40 CFR 270.41 and 270.42.

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VI.G.2. The CAP shall include a schedule of implementation with intermediate milestones beginning with the issuance of the permit modification requested pursuant to Condition VI.G.1. and continuing through the post-closure period.

VI.G.3. The CAP shall include a demonstration of financial responsibility for completing such corrective action as required by 40 CFR 264.101(b).

VI.H. Schedule of Compliance

- VI.H.1. All plans and reports required by this Section are subject to the approval of the Director prior to implementation. The Permittee shall revise all submittals as specified by the Director.
- VI.H.2. For any schedule of implementation required by this Section, if the time required to complete any interim activity is more than one year, the schedule shall specify interim dates for the submission of reports of progress towards satisfaction of the interim requirements.
- VI.H.3. Extensions of the due date for the submittal of any plan or report may be granted by the Director based on the Permittee's demonstration that sufficient justification for the extension exists.
- VI.H.4. Upon approval by the Director, all plans and reports shall be enforceable as conditions of this permit.
- VI.H.5.If at any time the Permittee determines that any plan or report required under this Section no longer satisfies the requirements of this permit or 40 CFR 264.101, the Permittee must submit an amended plan or report to the Director within thirty (30) days of such determination.
- VI.H.6. If at any time the Director determines that any plan or report required under this Section no longer satisfies the requirements of this permit or 40 CFR 264.101, the Director will so notify the Permittee in writing and request that an amended plan or report be submitted in accordance with a schedule to be specified.

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VI.I. Permit Modification

IV.I.1. If required to develop a corrective action plan under Condition VI.G., the Permittee shall apply for a permit modification pursuant to 40 CFR 270.42 to incorporate the plan into the permit.

SECTION VII. CORRECTIVE ACTION PLAN, SOIL PROTECTION STANDARDS, AND GROUNDWATER PROTECTION STANDARDS FOR EXISTING SOLID WASTE MANAGEMENT UNITS

VII.A. Purpose and Scope

- VII.A.1. The purpose of this Corrective Action Plan (CAP) and groundwater protection standard is to:
 - VII.A.1.a. Establish and maintain a hydraulic barrier to the movement of contaminated groundwater beyond the facility boundary; and
 - VII.A.1.b. Remove or reduce the concentration of hazardous constituents from the groundwater and soil to the levels in the protection standards cited in Section IV of the permit.

VII.B. Solid Waste Management Unit (SWMU) Identification:

Corrective Action described in this section shall apply to the SWMUs identified below:

SWMU 1 - Building J Tank Farm

SWMU 2 - Building G Tank Farm

SWMU 3 - Former Mix Plant Storage Tanks

SWMU 4 - Mix Plant Mixing Tanks

SWMU 5 - French Drain Collection Sump and Associated Drain Line

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VII.C. Corrective Action Program

- VII.C.1. The Permittee shall perform the corrective action program as required by 40 CFR 264.101 and as described in the Corrective Action Plan dated July 1999, revised in August 1999 and June 2000 and Addendum dated April 2008.
- VII.C.2. The Permittee shall conduct a corrective action program to remove or treat in place any hazardous constituents that exceed the levels found in the groundwater protection standard and the soil protection standard at the identified SWMU or AOCs at the facility and beyond the facility boundary as required under §12-8-66 of the Georgia Hazardous Waste Management Act, as amended, unless the Permittee can demonstrate to the satisfaction of the Director that despite the Permittee's best efforts, the Permittee was unable to obtain the necessary permission to take such action.

VII.D. Groundwater Monitoring Program

- VII.D.1. The Permittee shall retain, mark and maintain in good working order, the following groundwater monitoring wells, and all groundwater withdrawal wells referenced in the permit application and corrective action documents, or, any additional wells that may be required in Condition IV.B.; MW-1, MW-2, MW-3, MW-12B, MW-19, MW-21A, and MW-21C.
- VII.D.2. Permittee shall maintain a minimum of one background monitoring well (MW-23).
- VII.D.3. The Permittee shall install and maintain additional monitoring wells as necessary to assess changes in the rate and extent of any plume of contamination or as otherwise deemed necessary to maintain compliance with 40 CFR Part 264.95, 264.97, and 264.100. A plan specifying the design, location, and installation of any additional monitoring wells shall be submitted to the Director no less than thirty (30) days prior to the installation, which at a minimum shall include:
 - VII.D.3.a. Well installation and construction techniques including casing types and proposed total depth of well(s);
 - VII.D.3.b. Well development methods;
 - VII.D.3. c. A complete evaluation of well construction materials;
 - VII.D.3.d. A schedule of implementation for construction; and

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- VII.D.3.e. Provisions for determining the lithologic character, hydraulic conductivity and grain size distribution for the applicable aquifer unit(s) at the location of the new well(s).
- VII.D.4. The Permittee shall maintain the groundwater monitoring program described in the Groundwater Corrective Action Plan Addendum dated July 1999 and revised in August 1999, June 2000 and Addendum dated 2008, to demonstrate the effectiveness of the corrective action program required under §264.100 (and §264.101 as related to other releases of hazardous waste or hazardous constituents from a solid waste management unit).
- VII.D.5. During the groundwater monitoring period defined by Condition IV.D.6., the Permittee shall sample the following wells for arsenic, chromium, and copper according to the following schedule:
 - VII.D.5.a. Semi-annually at monitoring wells MW-2, MW-3, MW-19, MW-21A, MW-21C, and any additional wells that may be required in Condition VII.D.3.
- VII.D.6. During groundwater monitoring period, defined by Condition VII.D.7., the required groundwater monitoring for the wells identified in Condition VII.D.1., which are also downgradient of SWMUs and/or AOCs, will also serve as part of the monitoring required for Section VII.
- VII.D.7. The groundwater monitoring period shall begin on the effective date of the permit, and shall end on the date of issuance of a permit modification by the Director. The Permittee may request a permit modification to eliminate the monitoring requirements if the Groundwater Protection Standard has not been exceeded at any monitoring well specified in Conditions VII.D.5. and VII.D.6. for a period of three consecutive years.
- VII.D.8. The Permittee shall determine the groundwater surface elevations at all wells identified in Conditions IV.A. and VII.D.1. at the time of each groundwater sampling event.
- VII.D.9. The Permittee shall determine at least annually the groundwater flow rate and direction as monitored in each of the three water bearing zones at the facility, represented by the A, B, and C level monitoring wells.

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VII.E. Sampling and Analysis

The Permittee shall use the following techniques and procedures when obtaining and analyzing samples from the groundwater monitoring wells described in Condition VII.D.1. and to provide a reliable indication of the quality of the groundwater.

- VII.E.1. Samples shall be collected, preserved, and shipped (when shipped off-site for analysis) in accordance with the procedures specified in the Sampling and Analysis Plan in Attachment E-2 of the permit application, as amended or as specified in the current EPA Manual SW-846.
- VII.E.2. Samples shall be analyzed as specified in the Sampling and Analysis Plan in Attachment E-2 of the permit application, as amended or as specified in the current EPA Manual SW-846.
- VII.E.3. Samples shall be tracked and controlled using the chain of custody procedures specified in the Sampling and Analysis Plan in Attachment E-2 of the permit application, as amended or as specified in the current EPA Manual SW-846.

VII.F. Groundwater Protection Standards

- VII.F.1. The groundwater protection standard for releases from SWMUs and/or AOCs shall consist of Table 1.
- VII.F.2. The groundwater protection standard applies to all hazardous waste or hazardous constituent releases as deemed appropriate by the Director to protect public health and the environment.
- VII.F.3. If any additional hazardous constituents are discovered in the groundwater during corrective action activities, and these constituents exceed background levels, these constituents must be added to Table 1 by submittal, from the Permittee to the Director, of a permit modification request.

VII.G. Operation of the Corrective Action System

VII.G.1. The Permittee shall implement the groundwater extraction system in accordance with the approved Corrective Action Plan, Groundwater

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Corrective Action Plan Addendum and June 2000 Revision and 2008 Addendum. Any deviations from the approved design and operation of the corrective action system must be reported to the Director in writing within seven (7) days.

- VII.G.2. The Permittee shall install, operate, and maintain additional recovery wells as necessary to achieve the purpose of the CAP as referenced in Condition VII.C.
- VII.G.3. The Permittee shall treat, store, and dispose of all contaminated groundwater in accordance with all applicable federal, state and local laws.

VII.H. Soil Protection Standards

- VII.H.1. The soil corrective action goals for hazardous constituents from SWMUs and/or AOCs and their concentration limits are established in Table 2.
- VII.H.2. The soil corrective action goals apply to all hazardous waste, hazardous waste constituents, or hazardous constituent releases.
- VII.H.3. If any additional hazardous constituents, hazardous waste constituents, or hazardous wastes are discovered in the soil during corrective action activities, and these constituents exceed background levels, the Director must be notified within seven (7) days of discovery.

VII.I. Records and Reports

- VII.I.1. All reports and other documents containing geologic interpretation must be signed and affixed with the seal of a Professional Geologist currently registered in the State of Georgia. In accordance with Georgia Law O.C.G.A §43-19-26, all geologic work performed during any investigation required by this Permit must be done by or under the supervision of a Georgia Registered Professional Geologist. Further, any reports generated by the abovementioned work must be signed and sealed by said geologist. Failure to comply with these requirements will result in the rejection of the geologic work and any report not so prepared.
- VII.I.2. A <u>Corrective Action System Performance Evaluation Report</u> must be submitted to the Director on a semi-annual basis. The report shall describe

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the effectiveness of the corrective action program consistent with 40 CFR 264.101 to include all monitoring, testing and analytical data obtained as required by this permit. The report is due to the Director by July 31 and January 31 of each calendar year. This report shall at a minimum contain:

- VII.I.2.a. Site and vicinity maps;
- VII.I.2.b. Operational history;
- VII.I.2.c. Description of monitoring activities;
- VII.I.2.d. Semi-annual measurements of the elevation of the water table, elevation of the reference point, and depth to water of all the wells in Condition VII.B.:
- VII.I.2.e. Groundwater monitoring analytical results for the preceding sixmonth period.;
- VII.I.2.f. Interpretation of system performance including, but not limited to: VII.I.2.f.i. Operational data and problems;
 - VII.I.2.f.ii. Hydrogeologic impacts;
 - VII.I.2.f.iii. Groundwater quality;
 - VII.I.2.f.iv. Conclusions;
 - VII.I.2.f.v. Additional corrective action activities;
- VII.I.2.g. A potentiometric surface map for all quarterly groundwater monitoring events;
- VII.I.2.h. Plume maps (isocons) for all aquifers affected by site activities;
- VII.I.2.i. Any other material which describes and clarifies the corrective action activities; and
- VII.I.2.j. The Director may request additional material either in the report or as a supplement to aid in the interpretation of correction activities.
- VII.I.3. The Permittee shall enter all monitoring, testing, and analytical data obtained both during the corrective action program and during any subsequent monitoring period in the facility operating records, as required by 40 CFR 264.73(b)(6).

VII.J. Financial Assurance

The Permittee shall provide cost estimates and assurances of financial responsibility for corrective action which addresses both on-site and off-site contamination at such time the corrective action is approved pursuant to 40 CFR 264.101. Such financial assurance must conform to 40 CFR Part 264 Subpart H.

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VII.K. Compliance Period

The compliance period shall begin with the effective date of the permit and continue until the Groundwater Protection Standard has not been exceeded for a period of three consecutive years and corrective action as required under 40 CFR Part 264.100 has been terminated as required by 40 CFR Part 264.96(c). The Permittee shall insure that groundwater monitoring is performed and corrective action is taken during the compliance period to achieve compliance with the Groundwater Protection Standard.

VII.L. Permit Modification

- VII.L.1. If the Permittee at any time determines that the corrective action program no longer satisfies the requirements of 40 CFR 264.100 for releases of hazardous waste, hazardous waste constituents, or hazardous constituents that originate from the facility, he must within ninety days submit an application for a permit modification to make any appropriate changes in the program. Such application shall be made in accordance with 40 CFR 270.41 and 40 CFR 270.42.
- VII.L.2. If the Permittee meets or exceeds the requirements of 40 CFR 264.100 and meets the Groundwater Protection Standard throughout the monitoring well network for three consecutive years, the Permittee may submit an application for a permit modification pursuant to 40 CFR 270.41 and 40 CFR 270.42 to terminate corrective action and establish an alternative groundwater monitoring program.

TABLE 1. GROUNDWATER PROTECTION STANDARD

HAZARDOUS CONSTITUENT

CONCENTRATION LIMIT (mg/l)

Acetone	Background*
Acetonitrile	Background*
Total Arsenic	0.05
Total Chromium	0.05
Total Copper	0.0153**
Total Mercury	0.002
Total Nickel	Background*
Total Vanadium	Background*
Total Zinc	Background*

^{*} To be determined according to procedures specified in Condition IV.D.3.

TABLE 2. SOIL CORRECTIVE ACTION GOALS

HAZARDOUS CONSTITUENT	CONCENTRATION LIMIT (mg/kg)
Arsenic (surface soils)	331.0
Arsenic (subsurface soil)	260.0
Chromium	365.0

^{**} Concentration derived from background well data.

APPENDIX SOLID WASTE MANAGEMENT

UNIT SUMMARY

APPENDIX A-1

List of Solid Waste Management Units or Areas of Concern that require no further action at this time.

SWMU/AOC No.*

SWMU 6 – 1989 Arsenic Trioxide Spill

SWMU 7 – 1991 Arsenic Trioxide Spill

SWMU 8 – CCA Spill

SWMU 9 – Arsenic Plant Sumps

SWMU 10 - Railcar Room Unloading Sump

SWMU 11 – Paint Spill

SWMU 12 - Asphalt Spill

SWMU 13 – Diesel Fuel Spill

SWMU 14 – Hydraulic Oil Spill

SWMU 15 – Former Permitted Hazardous Waste Storage

^{*} See Figure B-7 of permit application, as amended.

APPENDIX A-2

List of Solid Waste Management Units or Areas of Concern that require corrective action at this time.

SWMU/AOC No.*

SWMU 1 – Building J Storage Tanks

SWMU 4 – Mix Plant Mixing Tanks

SWMU 5 – French Drain Collection Sump and Drain Line

^{*} See Figure B-7 of permit application, as amended.

APPENDIX A-3

List of Solid Waste Management Units which are regulated units as defined by 264.90(a)(2).

SWMU/AOC No.*

SWMU 2 – Building G Storage Tanks

SWMU 3 – Mix Plant Storage Tanks

SWMU 16 – J-Mate Arsenic Sludge Dryer

* See Figure B-7 of permit application, as amended.