

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES



**MISSOURI HAZARDOUS WASTE MANAGEMENT FACILITY
PART I PERMIT**

PERMIT NUMBER: MOD095486312

PERMITTEE

Owner and Operator: Safety-Kleen Systems, Incorporated
2600 North Central Expressway, Suite 400
Richardson, TX 75080

FACILITY LOCATION

Safety-Kleen Systems, Incorporated
4526 Towne Court
St. Charles, MO 63304
St. Charles County
North Latitude – 38°44'21"
West Longitude – 90°36'32"

FACILITY DESCRIPTION

Safety-Kleen Systems, Incorporated's facility in St. Charles, Missouri, is a storage and transfer facility. Safety-Kleen has been in business since 1968, with the St. Charles facility having operated since 1975. Safety-Kleen offers solvent collection and reclamation for its customers, most of whom are engaged in the automotive repair, industrial maintenance, and dry cleaning services. The St. Charles facility is an accumulation point for waste solvents generated by its customers. The wastes ultimately are transferred to another Safety-Kleen-owned recycling facility or a contract reclaimer for processing. The facility consists of an office building, a warehouse used for storing wastes, a metal shelter for flammable waste storage, two

aboveground storage tanks for clean solvent, one aboveground storage tank for used solvent, and four aboveground storage tanks for used oil and oily water storage. Groundwater contamination is present under the facility, possibly, or in part, coming from the site of a former transmission shop at the north end of the facility. Safety-Kleen is performing corrective action activities in response to this contamination. The general facility location is shown in Figure 1. The facility property boundaries are shown in Figure 2.

PERMITTED ACTIVITIES

This Permit allows Safety-Kleen Systems, Incorporated's facility in St. Charles, Missouri to store "characteristic" hazardous waste as well as various "F" listed hazardous wastes as specified in the Part A permit application. This Permit also requires a continued facility-wide corrective action program to address known releases to the environment from Solid Waste Management Units and Areas of Concern. This Permit also contains contingent corrective action conditions to address any newly identified releases to the environment from previously or newly identified Solid Waste Management Units and Areas of Concern, as necessary and appropriate.

EFFECTIVE DATES OF PERMIT: December 17, 2019 to December 16, 2029

December 17, 2019
Date



Carey Bridges, R.G., Deputy Director
DIVISION OF ENVIRONMENTAL QUALITY

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INTRODUCTION

After public notice, according to Code of State Regulations 10 CSR 25-8.124, and review of Safety-Kleen Systems, Incorporated's *RCRA Hazardous Waste Permit Application* (hereafter referred to as the permit application), the Missouri Department of Natural Resources (hereafter referred to as the Department) determined the permit application conforms to the provisions of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976 (RCRA), the Missouri Hazardous Waste Management Law [Sections 260.350 to 260.434, RSMo, et seq., of the Missouri Revised Statutes (RSMo)], and all standards, rules, and regulations adopted under these acts. The federal regulations, promulgated by the U.S. Environmental Protection Agency (hereafter referred to as EPA), are codified and to be codified in Title 40 of the Code of Federal Regulations. State rules and regulations promulgated under the Missouri Hazardous Waste Management Law are published in the Code of State Regulations, Title 10, Division 25 (10 CSR 25).

Pursuant to Section 260.375.13, RSMo, and the Solid Waste Disposal Act, the Department hereby approves the permit application and issues this Missouri Hazardous Waste Management Facility Part I Permit (hereafter referred to as the Permit), Permit Number MOD095486312, to Safety-Kleen Systems, Incorporated, as the facility owner and operator, (hereafter referred to as the Permittee) for operation of the hazardous waste management facility and "active" corrective action activities, as described in the permit application and this Permit. This Permit also includes "contingent" corrective action requirements that may be triggered, if necessary, for Solid Waste Management Units and Areas of Concern, pursuant to the state-equivalent requirements of the federal Hazardous and Solid Waste Amendments of 1984 (HSWA) to RCRA, as administered and enforced by the Department. The Department is issuing this Permit under state authority.

On July 6, 1999, Missouri received final authorization for revisions to its hazardous waste management program, including the corrective action portion of the HSWA Codification Rule (July 15, 1985, 50 FR 28702), which previously had been adopted by the state. Thus, the corrective action requirements implemented by Missouri, in lieu of EPA, are incorporated into this Permit and are under state authority.

All citations to federal regulations throughout this Permit are for the sake of convenient reference. The federal regulations are incorporated by reference in 10 CSR 25. Applicable regulations are found in 10 CSR 25-3, 25-4, 25-5, 25-6, 25-7, and 25-8; and 40 C.F.R. Parts 260 through 264, 266, 268, and 270, as specified in this Permit. In instances where state regulations are more stringent, the appropriate state reference is given and shall apply.

Any appeals of this Permit, or specific permit conditions based on state authority, shall be filed according to 10 CSR 25-8.124(2). Any parties adversely affected or aggrieved by this decision may be entitled to pursue an appeal before the Administrative Hearing Commission (AHC). To

appeal, the party shall file a petition with the AHC within 30 calendar days after the date this Permit was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, then it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC. Contact information for the AHC can be found online at ahc.mo.gov, or by calling 573-751-2422. The Department also requests a copy of any appeal request be provided to the Missouri Department of Natural Resources, Waste Management Program Director, P.O. Box 176, Jefferson City, MO 65102-0176.

The provisions of this Permit are severable. If any provision of this Permit, or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this Permit shall not be affected thereby.

This Permit is for hazardous waste storage and corrective action activities and is issued only to the Permittee named above. This Permit is issued for a period of 10 years and expires at midnight on December 16, 2029. This Permit is subject to review and modification by the Department, according to Section 260.395.12, RSMo, and 40 C.F.R. § 270.41. According to 40 C.F.R. § 270.51, if the Permittee submits a timely and complete application for a new permit and the Department, through no fault of the Permittee, is unable to issue a new permit on or before the expiration of this Permit, the conditions of this Permit will continue in force until the effective date or denial of a new permit.

All permit application information shall be made available to the public, unless the Permittee requests nondisclosure, in writing, as described in Section 260.430, RSMo, and 10 CSR 25-7.270(2)(B)2. This Permit and accompanying materials shall be available for public review at the Department's office in Jefferson City, Missouri.

The following shall collectively be referred to as the "approved permit application":

- RCRA Hazardous Waste Permit Application, dated March 23, 2017.
- In-Situ Bioremediation Work Plan, dated May 31, 2019.
- Additional technical information, dated August 8, 2019.

The "consolidated permit application" is defined as the approved permit application, any changes resulting from the public comment period, and all additional documents required to be submitted under the Schedule of Compliance contained in this Permit. The Permittee shall maintain a copy of all documents outlined above with the consolidated permit application at the facility.

Section 260.395.12, RSMo, and 40 C.F.R. § 270.32(b)(2), require each permit issued under that section to contain terms and conditions as the Department determines necessary to protect human health and the environment. Operation of this hazardous waste management facility, current corrective action, and any future required corrective action activities shall be according to the provisions of this Permit; the Missouri Hazardous Waste Management Law and the rules and regulations promulgated thereunder as effective on the date of this Permit; all final engineering plans, petitions, specifications, and operating procedures submitted to the Department during the permit application review process, which are included in the approved permit application; and any other conditions, changes, or additions to the engineering plans, specifications, and operating procedures as specified in this Permit. The consolidated permit application, which includes the approved permit application, is therefore incorporated by this reference into the conditions of this Permit. All conditions specified in this Permit supersede any conflicting information in the consolidated permit application. Where conflicts arise between documents, the latest revision shall be effective.

According to 40 C.F.R. Part 270 Subpart D, any inaccuracies found in information submitted by the Permittee may be grounds for terminating, revoking and reissuing, or modifying this Permit, and for potential enforcement action. The Permittee shall inform the Department 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. When the Department receives any information, such as inspection results, information from the Permittee, or requests from the Permittee, it may decide whether cause exists to modify, revoke and reissue, or terminate this Permit. All such changes to this Permit shall be handled according to the requirements of 10 CSR 25-8.124 and 40 C.F.R. Part 270 Subpart D.

40 C.F.R. § 264.101(a) requires all owners or operators of facilities seeking a permit for treating, storing, or disposing hazardous waste, to institute corrective action as necessary to protect human health and the environment from all releases of hazardous wastes or hazardous constituents from any Solid Waste Management Unit, regardless of the time at which waste was placed in such unit. 40 C.F.R. § 264.101(b) requires that permits issued under the Missouri Hazardous Waste Management Law contain a Schedule of Compliance for corrective action (where corrective action cannot be completed before permit issuance) and assurances of financial responsibility for completing such corrective action. 40 C.F.R. § 264.101(c) requires corrective action to be taken by the facility owner or operator beyond the facility property boundary, where necessary to protect human health and the environment, unless the owner or operator demonstrates that, despite the owner or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such actions. 40 C.F.R. § 264.101(c) further stipulates that the owner or operator is not relieved of any responsibility to cleanup a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such

releases shall be determined on a case-by-case basis. In addition, assurances of financial responsibility for completing such corrective action shall be provided.

The Permittee is required to comply with all applicable environmental laws and regulations enforced by the Department. These environmental laws and regulations are administered by the Air Pollution Control Program, Environmental Remediation Program, Land Reclamation Program, Missouri Geological Survey, Waste Management Program, and Water Protection Program. Failure to comply with these environmental laws and regulations may, in certain circumstances, result in suspending or revoking this Permit and may subject the permit holder to civil and criminal liability.

DEFINITIONS

For purposes of this Permit, terms used herein shall have the same meaning as those in RCRA and 40 C.F.R. Parts 260, 261, 264, 266, 268, and 270, and 10 CSR 25, unless this Permit specifically provides otherwise. Where terms are not defined in RCRA, the regulations, this Permit, or EPA guidance 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.

“Alternate Concentration Limit (ACL)” means a Department-approved maximum concentration limit or risk-based threshold for a hazardous constituent, facility-related contaminant, or combination thereof, in the groundwater that will not pose a substantial present or potential hazard to human health or the environment, as long as that concentration limit or risk-based threshold is not exceeded.

“Approved Permit Application” means the original permit application and all subsequent revisions or addenda to the permit application, and any completeness and technical information submitted as referenced in the Introduction of this Permit.

“Area of Concern (AOC)” means any area where an actual or potential release of hazardous wastes or hazardous constituents that is not from a Solid Waste Management Unit, has occurred or is occurring and is determined by the Department to pose a current or potential threat to human health or the environment. Investigating and/or remediating AOCs may be required pursuant to Section 260.395, RSMo, and 40 C.F.R. § 270.32(b)(2).

“Consolidated Permit Application” means the approved permit application, any changes resulting from the public comment period, and all additional documents required to be submitted under the Schedule of Compliance contained in this Permit.

“Corrective Action” means the investigation and remediation of hazardous wastes and hazardous constituents from any past and present release(s), including contamination that may have migrated beyond the boundaries of the permitted property.

“Director” means the Director of the Missouri Department of Natural Resources or authorized delegate.

“Effectiveness Wells” means the wells installed at various locations to evaluate the efficacy of the corrective action(s) and/or evaluate the remedy(s) implemented at the site.

“Facility” means:

- (1) All contiguous land and structures, other appurtenances, and improvements on the land used for treating, storing, or disposing hazardous waste; and
- (2) All contiguous property under the control of the owner or operator, for the purpose of implementing corrective action under 40 C.F.R. § 264.101, and as specified in this Permit.

“Hazardous Constituent” means any chemical compound listed in 40 C.F.R. Part 261, Appendix VIII.

“Hazardous Waste” means any waste, or combination of wastes, as defined by or listed in 40 C.F.R. Part 261, that may cause or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness or that may pose a threat to the health of humans or other living organisms because of its quantity, concentration, physical, chemical, or infectious characteristics.

“Interim/Stabilization Measures (ISMs)” means actions to control or abate threats to human health or the environment from releases at hazardous waste treatment, storage, or disposal facilities, or to prevent or minimize the further spread of contamination while long-term remedies are pursued.

“Injection Well” means a Class V well used to inject non-hazardous fluids underground. For the purposes of this Permit, Class V Underground Injection Control (UIC) wells consist of groundwater remediation wells regulated under Missouri’s Water Pollution Law (Section 644, RSMo) and the Water Well Driller’s Act (Sections 256.600 through 256.640, RSMo).

“Investigation Wells” means the wells used to evaluate the rate and extent of groundwater contamination and assess any newly identified release(s) or risk limit exceedance(s) observed at the site.

“Perimeter Wells” means the wells installed at various depths at or just beyond the known extent of groundwater contamination, which serve as an early warning system to detect changes in groundwater quality and potential contaminant migration.

“Point of Compliance” means the location(s) at which groundwater concentrations are measured to demonstrate that concentrations do not exceed the Groundwater Protection Standards (GPS) contained in Table 4.

“Release” means any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing hazardous wastes or hazardous constituents into the environment, outside of permitted primary or secondary containment. This includes abandoning or discarding barrels, containers, and other closed receptacles containing hazardous wastes or hazardous constituents.

“Solid Waste Management Unit (SWMU)” means any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for managing solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically managed.

SCHEDULE OF COMPLIANCE

- I. Within 60 calendar days after the effective date of this Permit, the Permittee shall:
 - A. Submit to the Department two paper copies and one searchable electronic copy of the consolidated permit application, incorporating any changes resulting from comments on the draft Permit, as required by 10 CSR 25-7.270(2)(B)7., and defined in the Introduction of this Permit.
 - B. Submit to the Department a certification signed by the Permittee that the Permittee has read this Permit in its entirety and understands all permit conditions contained in this Permit.
 - C. Submit to the Department, to the attention of the Waste Management Program, a check or money order payable to “State of Missouri” for any outstanding engineering review costs.

- D. Submit to the Department, to the attention of the Waste Management Program, a check or money order payable to “State of Missouri” for \$1,000 for each year this Permit is to be in effect beyond the first year. This Permit is effective for 10 years. Since the Permittee submitted a \$1,000 deposit with the permit application and paid a \$1,000 permit continuation fee for the current year, the remaining balance to be submitted by the Permittee is calculated as:

$$\text{Remaining balance} = \$9,000.00 - ((\$1,000.00 \div 365 \text{ days}) \times N_d)$$

where N_d equals the number of calendar days from the expiration date of the continued permit (which coincides with the anniversary date of the original permit issuance) to the date of permit reissuance. An invoice based on the foregoing formula is included with this Permit.

- E. Submit to the Department for approval, a revised Sampling and Analysis Plan to incorporate all groundwater monitoring conditions outlined in this Permit and any new conditions at the facility, as required in Corrective Action Condition XIV.C.1.
- II. The Permittee shall comply, as necessary, with all planned and contingent corrective action requirements of this Permit, as specified in the Corrective Action Conditions of this Permit and as summarized in Tables 7 and 8.

SUBMITTAL OF REQUIRED INFORMATION

- I. Unless otherwise requested by the Department, the Permittee shall submit two paper copies and one searchable electronic copy of all reports, documents, plans/specifications, and consolidated permit application required under the terms of this Permit to:
- Chief, Engineering Section
Missouri Department of Natural Resources
Waste Management Program
P.O. Box 176
Jefferson City, MO 65102-0176
- II. If the Permittee requires additional time to submit a scheduled document or perform other activities required by this Permit, the Permittee shall submit a written extension request to the Department according to General Permit Condition V.

STANDARD PERMIT CONDITIONS

- I. The Permittee shall comply with the requirements set forth in the Missouri Hazardous Waste Management Law and all corresponding standards, rules, and regulations adopted under this Law, Section 260.350, et seq., RSMo, 10 CSR 25-8, 40 C.F.R. Part 264 Subpart H, 40 C.F.R. §§ 264.101, 270.10, 270.30, 270.40, 270.42, and 270.51.
- II. According to 40 C.F.R. § 270.10(h)(1), the Permittee may submit a permit renewal application to the Department at least 180 calendar days before the expiration date of this Permit, unless the Director allows a later date. However, in order not to jeopardize timely reissuance, according to 40 C.F.R. § 270.32(b)(2), the Permittee shall submit a permit renewal application to the Department at least 24 months before the expiration date of this Permit, unless the Department allows a later date pursuant to General Permit Condition V.

GENERAL PERMIT CONDITIONS

- I. The Permittee shall comply with the applicable requirements described in 40 C.F.R. Part 264 Subparts B, C, D, E, F, G, H, I, J, BB, and CC; 40 C.F.R. Part 268; and 40 C.F.R. Part 270.

- II. Notification of an Emergency Situation [Section 260.505.4, RSMo]

The Permittee shall, at the earliest practical moment upon discovery of an emergency involving the hazardous waste or hazardous constituents under the Permittee's control, implement the facility contingency plan, including notifying the Department's emergency response hotline at 573-634-2436 and the National Response Center at 800-424-8802.

Within 15 calendar days after the incident occurrence, the Permittee shall submit a written report to the Department providing details. The content of the written report shall conform to 40 C.F.R. § 264.56(i) and be provided to the addressee listed in the "Submittal of Required Information" provision of this Permit.

- III. This Permit does not authorize managing any non-hazardous solid waste outside the hazardous waste management processes and units described herein. Handling non-hazardous solid waste outside the requirements of this Permit is subject to regulation under Missouri's Solid Waste Management Law and regulations.

IV. Review and Approval Procedures

- A. Financial assurance cost estimates and draft financial assurance mechanisms submitted for closure or corrective action activities shall be reviewed and responded to by the Department, according to the procedures described in the Financial Assurance Conditions of this Permit.
- B. Following submission of any plan or report pertaining to any plans to conduct sampling and analysis of the hazardous waste, residues, emissions, plant sampling, odor testing, or for closure or corrective action activities (excluding the Annual Progress Reports, Annual Groundwater Corrective Action Report, unless proposed actions to address corrective action program inadequacies are contained therein; and Corrective Measures Implementation Report), and any Certification of Completion or Construction of Final Remedy, the Department shall review and either approve or provide written comments on the plan or report. If the Department does not approve the plan or report, the Department shall notify the Permittee, in writing, of the plan's or report's deficiencies and specify a due date for submitting a revised plan, report, or associated activity schedule.
- C. If the Department does not approve the revised plan, report, or associated activity schedule, the Department may modify the plan, report, or schedule and notify the Permittee, in writing, of the modifications. The plan, report, or schedule, as modified by the Department, shall be the approved plan, report, or schedule.
- D. If the Permittee disagrees with any Department-initiated plan, report, or schedule modifications, and a mutually acceptable resolution of such modifications cannot be reached informally, the Permittee may file an appeal of the Department-initiated modifications according to Sections 260.395.11 and 621.250, RSMo.

V. Document and Activity Extension Requests

- A. If the Permittee requires additional time to submit a scheduled document or perform other activities required by this Permit, the Permittee shall submit a written extension request to the Department. Hard copy letter or e-mail are acceptable. The Department shall receive the extension request at least 15 calendar days before the scheduled document due date or activity completion date. The Permittee's extension request shall specify the amount

of additional time needed and shall be accompanied by the Permittee's justification for the extension.

- B. The Department shall review and approve the extension request according to the procedures described in General Permit Condition IV.
- C. If the Department does not approve the extension request, the Department may modify the request and notify the Permittee, in writing, of the modification. The extension request, as modified by the Department, shall be the approved schedule.

SPECIAL PERMIT CONDITIONS

The Department established the following permit conditions for the Permittee and the hazardous waste facility at the location specified in this Permit.

I. 100-Year Floodplain Requirements [40 C.F.R. § 264.18(b)]

The Permittee submitted information, as required in 40 C.F.R. §§ 270.14(b)(11)(iii) and 270.28, that identifies the active portion of the facility as not being located in a 100-year floodplain. The active portion of the facility, in this case, refers to SWMUs, AOCs, wells, and/or other waste management structures. Therefore, a plan, as required in 40 C.F.R. § 264.18(b), for managing hazardous waste within a floodplain is not required. The Permittee shall maintain this information in the facility operating record.

II. Storage in Containers [40 C.F.R. Part 264 Subpart I]

Two container storage areas currently are permitted and operating: the Container Storage Area (CSA) and Flammable Storage Shed (FSS). These areas are located as shown on Figure 2, and are subject to the requirements of 40 C.F.R. Part 264 Subpart I.

A. Waste Identification

The Permittee shall store, in the permitted container storage areas, only the hazardous wastes identified in Part A of the approved permit application. Non-hazardous waste regulated material may be stored in the permitted container storage areas as long as the material does not interfere with hazardous waste operations, is containerized, and is managed according to the

requirements of Special Permit Condition II. All stored wastes are subject to the terms of this Permit.

B. Waste Quantities

The maximum quantity of wastes that may be stored in each permitted container storage area is listed in Table 1:

Table 1 - Container Storage Area (CSA) Maximum Volumes

Identification	Maximum Volume (gallons)
Container Storage Area	4,280
Flammable Storage Shed	2,186

For inspection purposes, the Total Stored Volume in these areas may be calculated by:

A	Number of 5-gallon containers
B	Number of 16-gallon containers
C	Number of 30-gallon containers
D	Number of 55-gallon containers
E	Number of gallons stored in off-sized containers

$$(A \times 5) + (B \times 16) + (C \times 30) + (D \times 55) + E = \text{Total Stored Volume (gallons)}$$

C. Condition of Containers [40 C.F.R. § 264.171]

If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the Permittee shall transfer the hazardous waste to a container that is in good condition or manage the hazardous waste in some other way that complies with the conditions of this Permit, such as over-packing.

D. Compatibility of Waste with Containers [40 C.F.R. § 264.172]

1. The Permittee shall use a container made of, or lined with, materials that will not react with, and are otherwise compatible with, the

hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired.

2. Containers meeting U.S. Department of Transportation (USDOT) standards for transporting containerized materials (40 C.F.R. Part 173) are also acceptable for storing hazardous waste.

E. Management of Containers [40 C.F.R. § 264.173]

1. A container holding hazardous waste shall always be closed during storage, except when it is necessary to add or remove waste. A container holding hazardous waste shall not be opened, handled, or stored in a manner that may rupture the container or cause it to leak or spill.
2. The Permittee shall store containers in a manner that ensures physical stability and allows for visual inspection of each container and each container's label except:
 - a. For visual inspection of containers not containing free liquids where container size prohibits inspecting center containers when palletized, provided the outermost containers are clearly labeled per Special Permit Condition II.F.2.; and
 - b. For visual inspection of containers containing free liquids where container size prohibits inspecting center containers when palletized provided:
 - (1) The hazardous wastes within a pallet are all the same material; and
 - (2) If a container on the pallet leaks, the pallet is unloaded and the spill is remedied according to the approved permit application.
3. Containers shall not be stacked in a manner that causes leaks or spills of hazardous waste.
 - a. Drummed material shall be stacked no higher than 4 vertically oriented 55-gallon sized drums.

- b. Containers stacked on pallets shall be stacked no higher than 13 feet or be stacked or placed closer than 3 feet from ceilings or any roof members, or both. The containers shall be shrink-wrapped in plastic to stabilize the palletized stacks.
 - c. Class I flammable liquids, as defined in the National Fire Protection Association's "Flammable and Combustible Liquids Code" (NFPA 30, as revised 1996), shall be stacked no higher than 5 feet.
 - d. Class II combustible liquids, as defined in the National Fire Protection Association's "Flammable and Combustible Liquids Code" (NFPA 30, as revised 1996), shall be stacked no higher than 10 feet.
4. Unless Special Permit Conditions II.J.1. and 2. are applicable, all containers shall be arranged so there is a minimum of 2 feet of aisle space maintained between rows, allowing accessibility to each individual container for inspection. Double pallet rows can be used. When containers are stored on pallets, a minimum of one-half foot of spacing shall be maintained between the pallets within the row. All container labels shall be visible from an aisle.
 5. The aisle space between rows shall be maintained to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation.
 6. The container storage areas shall be clearly delineated with tape or painted lines on the floor of the facility. Rows within the container storage areas shall also be delineated with tape or painted lines on the floor of the facility.
- F. Labeling and Marking [40 C.F.R. § 268.50]

Each container shall be clearly marked to identify its contents with the following:

1. The words "Hazardous Waste";

2. The date of receipt or date when accumulation begins;
 3. The applicable EPA hazardous waste code(s) or use a nationally recognized electronic system, such as bar coding; and
 4. An indication of the hazards of the contents, such as:
 - a. The applicable hazardous waste characteristic(s);
 - b. Hazard communication consistent with USDOT requirements at 49 C.F.R. part 172 subpart E (labeling) or subpart F (placarding);
 - c. A hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 C.F.R. 1910.1200; or
 - d. A chemical hazard label consistent with the National Fire Protection Association code 704.
- G. Inspections [40 C.F.R. § 264.174]
1. At least weekly, and according to the schedule found at Section F in the approved permit application, the Permittee shall inspect areas where containers are stored, looking for leaking containers and for deterioration of containers and the containment system caused by corrosion or other factors.
 2. At least weekly, the Permittee shall inspect the floor around the containers looking for cracks. At least annually, the Permittee shall inspect the entire floor for cracks, including the areas under the containers. This annual inspection requirement may be met by partial inspections of the floor during movement of containers in and out of the container storage areas. If cracks are found in the floor, repairs shall begin within 10 calendar days after identifying the cracks. Inspection results and any repairs shall be recorded in the facility operating record.

H. Containment [40 C.F.R. § 264.175]

1. The Permittee shall design and operate containment systems for the CSA and FSS, as follows:
 - a. A base shall underlie the containers, which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed.
 - b. The base shall be sloped or the containment system shall be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids.
 - c. The containment system shall have sufficient capacity to contain 10 percent of the volume of the maximum volume of all containers permitted for the area or 100 percent of the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in this determination.
 - d. Run-on into the containment system shall be prevented unless the collection system has sufficient excess capacity in addition to that required in Special Permit Condition II.G.1.c., to contain any run-on that might enter the system.
 - e. Spilled or leaked waste shall be removed from the sump or collection area, and the area shall be cleaned up, in as timely a manner as is necessary to prevent releases to the environment and provide for protection of on-site personnel.

I. Temporary Management [40 C.F.R. § 270.32(b)(2)]

A container holding hazardous waste shall not be temporarily staged, stored, or managed in an area of the facility not addressed by this Permit for a period that exceeds 24 consecutive hours, unless the area is being operated as a less than 90-day hazardous waste generator storage area or on a 10-day transfer basis.

- J. Special Requirements for Ignitable or Reactive Waste [40 C.F.R. § 264.176]
1. The Permittee shall maintain the facility, as illustrated in the approved permit application, in a manner that complies with 40 C.F.R. § 264.176.
 2. Containers holding ignitable or reactive waste shall be located at least 50 feet from the facility's property line.
- K. Special Requirements for Incompatible Waste [40 C.F.R. § 264.177]
1. The Permittee shall not place incompatible hazardous wastes or materials in the same container, unless such action complies with the requirements of 40 C.F.R. § 264.17(b).
 2. The Permittee shall not place hazardous waste in an unwashed container that previously held an incompatible waste or material.
 3. The Permittee shall separate by device (i.e., a dike or other physical means) containers of incompatible waste or materials. No incompatible waste or materials may be stored together in the container storage areas without providing separation sufficient to prevent the mixing of any spilled materials that may be incompatible.
- L. Closure [40 C.F.R. § 264 Subpart G]

At closure, the Permittee shall remove all solid and hazardous waste and hazardous waste residues from the container storage areas and containment systems and close according to the Closure Plan included in the approved permit application. If the Permittee is unable to close according to the approved Closure Plan, the Permittee shall submit a permit modification to the Department, according to 40 C.F.R. § 270.42., addressing any necessary changes to the approved Closure Plan.

III. Storage and Treatment in Tanks [40 C.F.R. Part 264 Subpart J]

One tank currently is permitted and operating: the Used Mineral Spirits Tank. This tank is located as shown on Figure 2, and is subject to the requirements of 40 C.F.R. Part 264 Subpart J.

A. Waste Identification

The Permittee shall store in the tank only the hazardous wastes identified in Part A of the approved permit application. This condition does not preclude storing non-hazardous wastes. All stored wastes are subject to the terms of this Permit and shall be managed as hazardous waste.

B. Waste Quantities

This Permit applies to the following storage tank, unless as provided elsewhere in this Permit.

Table 2 - Storage Tank Identification

Tank Name	Tank Volume(gallons)
Used Mineral Spirits Tank	15,000

C. Assessment of Existing Tank System's Integrity [40 C.F.R. § 264.191]

The Permittee's Used Mineral Spirits Tank and associated appurtenances qualifies as an existing tank system. The Permittee has provided a written tank integrity assessment for the existing tank, as required by 40 C.F.R. § 264.191(a). The Permittee shall keep the written assessment on file at the facility.

D. Design and Installation of New Tank Systems or Components [40 C.F.R. § 264.192]

1. Before operating any new tank systems at the facility, the Permittee shall obtain and submit to the Department a written assessment, reviewed and certified by a professional engineer registered in Missouri, according to 40 C.F.R. § 270.11(d). This assessment shall include a final design set of certified construction drawings, and shall show the foundation, structural supports, seams, connections, and pressure controls are adequately designed to ensure the tank systems will not collapse, rupture, or fail. This assessment shall be subject to the regulatory review and approval process.
2. The Permittee shall ensure proper handling procedures are adhered to in order to prevent damage to new tank systems during installation.

Before placing new tank systems in use, an independent, qualified installation inspector or a professional engineer registered in Missouri, either of whom is trained and experienced in properly installing tank systems or components, shall inspect the systems for weld breaks, punctures, scrapes of protective coatings, cracks, corrosion, and other indications of structural damage or inadequate construction or installation. All deficiencies noted during the inspection shall be remedied before the tank systems are placed in use.

3. The Permittee shall test all new tanks and ancillary equipment for tightness before being placed in use. If a tank system is found not to be tight, all repairs necessary to remedy the leak(s) in the system shall be performed before the tank system is placed in use.
 4. The Permittee shall ensure all ancillary equipment is supported and protected against physical damage and excessive stress due to settlement, vibration, expansion, or contraction.
 5. The Permittee shall obtain, and keep on file at the facility, written statements by those persons required to certify the design of the tank systems and supervise the installation and repairs of the tank systems, according to the requirements of 40 C.F.R. § 264.192(b) through (f).
- E. Containment and Detection of Releases [40 C.F.R. § 264.193]
1. In order to prevent the release of hazardous waste or hazardous constituents to the environment, the Permittee shall provide for all of its tank systems, secondary containment that meets the requirements of 40 C.F.R. § 264.193.
 2. Secondary containment systems shall be:
 - a. Designed, installed, and operated to prevent any wastes or accumulated liquid from migrating out of the system to the soil, groundwater, or surface water at any time during the use of the tank system; and
 - b. Capable of detecting and collecting releases and accumulated liquids until the collected material is removed.

3. To meet the requirements of 40 C.F.R. § 264.193(b), secondary containment systems shall be, at a minimum:
 - a. Constructed of, or lined with, materials that are compatible with the wastes to be placed in the tank systems and shall have sufficient strength and thickness to prevent failure owing to pressure gradients (including static head and external hydrologic forces), physical contact with the waste to which the materials are exposed, climatic conditions, and the stress of daily operation (including stresses from nearby traffic);
 - b. Placed on a foundation or base capable of providing support to the secondary containment system, resistance to pressure gradients above and below the system, and capable of preventing failure due to settlement, compression, or uplift;
 - c. Provided with a leak detection system that is designed and operated so it will detect the failure of either the primary or secondary containment structure, or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within 24 hours, or at the earliest practicable time if the Permittee is able to demonstrate to the Department's satisfaction that existing detection technologies or site conditions will not allow detection of a release within 24 hours and that a specified additional amount of time is necessary; and
 - d. Sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. Spilled or leaked waste and accumulated precipitation shall be removed from the secondary containment system within 24 hours, or in as timely a manner as is possible to prevent harm to human health or the environment, if the Permittee is able to demonstrate to the Department's satisfaction that removing the released waste or accumulated precipitation cannot be accomplished within 24 hours.

If the collected material is a hazardous waste under 40 C.F.R. Part 261, it shall be managed as a hazardous waste. If the collected material is discharged through a point source to

waters of the state, or to a Publicly Owned Treatment Works, it is subject to the requirements of Chapter 644, RSMo, and its implementing regulations. The collected material may only be released into the environment upon written approval from the Water Protection Program. If the collected material is released to the environment, it may be subject to the reporting requirements of 40 C.F.R. Part 302. The Permittee is required to obtain an approval from the Water Protection Program before discharge.

4. Secondary containment for tanks shall include one or more of the following devices: a liner (external to the hazardous waste storage tank); a vault; a double-walled tank; or an equivalent device as approved by the Director. The design, construction, and operation of these devices shall satisfy the requirements of 40 C.F.R. § 264.193(e).
5. Ancillary equipment shall be provided with secondary containment (e.g., trench, jacketing, double-walled piping) that meets the requirements of 40 C.F.R. § 264.193(b) and (c), except for the following tank system components that are visually inspected for leaks on a daily basis: above ground piping (exclusive of flanges, joints, valves, and other connections); welded flanges, welded joints, and welded connections; sealless or magnetic coupling pumps and sealless valves; and pressurized above ground piping systems with automatic shut-off devices.

F. General Operating Requirements [40 C.F.R. § 264.194]

1. The Permittee shall not place hazardous wastes or treatment reagents in a tank system if they could cause the tank, its ancillary equipment, or the containment system to rupture, leak, corrode, or otherwise fail.
2. The Permittee shall use appropriate controls and practices to prevent spills and overflows from tank or containment systems. These shall include at a minimum:
 - a. Spill prevention controls such as, but not limited to, check valves and dry disconnect couplings; and

- b. Overfill prevention controls such as, but not limited to, level sensing devices, high-level alarms, automatic feed cutoffs, or a bypass to standby tanks, which limit tank-working volumes.

G. Inspections [40 C.F.R. § 264.195]

The Permittee shall inspect all tanks and tank systems as specified in this permit condition and the approved permit application, Section F. At a minimum, a professional engineer registered in Missouri shall test all permitted tanks by ultrasonic methods for material thickness and perform a detailed visual inspection. These tests and inspections shall be made at regular intervals, not to exceed 24 months between inspections.

1. The Permittee shall develop and follow a schedule and written procedures for inspecting overfill controls. This schedule shall specify a minimum frequency of once each week for testing the electronic overfill control system. This information shall be recorded in the facility operating record.
2. The Permittee shall inspect at least once each operating day:
 - a. Above ground portions of the tank systems to detect corrosion or releases of waste;
 - b. Data gathered from monitoring and leak detection equipment to ensure the tank system is being operated according to its design; and
 - c. The construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system, to detect erosion or signs of releases of hazardous waste.
3. The Permittee shall document these inspections in the facility operating record. Any deterioration or malfunction found shall be remedied according to 40 C.F.R. § 264.15(c). In addition, 40 C.F.R. § 302.6 may require the Permittee to notify the National Response Center in the event of a release.

H. Response to Leaks or Spills and Disposition of Leaking or Unfit-for-Use Tanks Systems [40 C.F.R. § 264.196]

A tank system or secondary containment system from which there has been a leak or spill, or which is unfit-for-use, shall be removed from service immediately, and the Permittee shall satisfy the following requirements:

1. The Permittee shall immediately stop the flow of hazardous waste into the tank system or secondary containment system and inspect the system to determine the cause of the release.
2. Remove waste from tank systems or secondary containment systems:
 - a. If the release was from the tank system, within 24 hours after detecting the leak, the Permittee shall remove as much of the waste as is necessary to prevent further release of hazardous waste into the environment and to allow inspection and repair of the tank system to be performed.
 - b. If the material released was to a secondary containment system, the Permittee shall remove all released materials from the secondary containment system within 24 hours.
3. The Permittee shall immediately conduct an inspection of the release and, based upon that inspection, shall:
 - a. Prevent further migration of the leak or spill to soils or surface water; and
 - b. Remove and properly dispose any contaminated soil and/or surface water. Those tank systems, which are intended to be closed without removing the hazardous waste to below acceptable risk-based levels, shall close as a landfill according to the requirements of 40 C.F.R. Part 264 Subpart N. If the tank system cannot meet the requirements and contamination exists, the Permittee shall clean up contaminated residues and hazardous constituents to the greatest extent practicable during closure.

4. Notification and Reports
 - a. Any release to the environment, except a release that is exempted under 40 C.F.R. § 264.196(d)(2), shall be reported to the Director within 24 hours of its detection. If the release has been reported pursuant to 40 C.F.R. Part 302, that report shall satisfy this requirement.
 - b. A leak or spill of non-acute hazardous waste to the environment is exempted from notification and reporting requirements if it is less than or equal to a quantity of 1 pound and is immediately contained and cleaned up.
 - c. Within 30 calendar days after detecting a release to the environment, the Permittee shall submit a report to the Department that details the likely route of migration of the release; characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate); the results of any monitoring or sampling conducted in connection with the release (if available; when these results are not available within 30 calendar days, these results shall be submitted as soon as they become available); proximity to downgradient drinking water, surface water, and populated areas; and descriptions of response actions taken or planned.
5. The tank system shall be closed according to Special Permit Condition III.K., unless the Permittee satisfies the following requirements:
 - a. If the cause of the release was a spill that has not damaged the integrity of the system, the Permittee may return the system to service as soon as the released waste is removed and repairs, if necessary, are made;
 - b. If the cause of the release was a leak from the primary tank system into the secondary containment system, the system shall be repaired before returning the tank system to service; and
 - c. If the source of the release was a leak into the environment from a tank system component without secondary containment,

the Permittee shall comply with the provisions of 40 C.F.R. § 264.196(e)(4).

6. The Permittee shall provide certification of major repairs to tank systems from which there has been a leak or spill, or which was unfit for use, according to 40 C.F.R. § 264.196(f).

I. Special Requirements for Ignitable or Reactive Waste [40 C.F.R. § 264.198]

1. The Permittee shall not place ignitable or reactive waste in tank systems, unless it meets one of the following conditions:
 - a. The waste is treated, rendered, or mixed before or immediately after placement in the tank system so that the resulting waste, mixture, or dissolved material no longer meets the definition of ignitable or reactive waste in 40 C.F.R. Part 261, and the Permittee complies with 40 C.F.R. § 264.17(b); or
 - b. The waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to ignite or react; or
 - c. The tank system is used solely for emergencies.
2. The Permittee shall comply with the requirements for maintaining protective distances between tanks storing ignitable or reactive wastes and any public ways, streets, alleys, or any adjoining property that can be built upon as required in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code," (1977 or 1981, incorporated at 40 C.F.R. § 260.11).

J. Special Requirements for Incompatible Wastes [40 C.F.R. § 264.199]

1. The Permittee shall not place incompatible wastes or materials in the same tank system, unless such action complies with the requirements of 40 C.F.R. § 264.17(b).
2. The Permittee shall not place hazardous waste in a tank system that has not been decontaminated and that previously held an incompatible

waste or material, unless the Permittee complies with 40 C.F.R. § 264.17(b).

K. Closure and Post-Closure Care [40 C.F.R. § 264.197]

At closure, the Permittee shall remove or decontaminate all hazardous waste and hazardous residues from the tank systems, including, but not limited to: contaminated tank system components (liners, etc.), contaminated soils, and contaminated equipment and structures, and close according to the Closure Plan included in the approved permit application. If the Permittee is unable to close according to the Closure Plan, the Permittee shall submit a permit modification to the Department, according to 40 C.F.R. § 270.42. The Closure Plan, closure activities, closure cost estimates, and financial responsibility for tank systems shall meet all requirements specified in 40 C.F.R. Part 264 Subparts G and H. Those tank systems that close without removing the hazardous waste to below acceptable risk-based levels shall close as a landfill according to the requirements of 40 C.F.R. Part 264 Subpart N.

IV. Waste Minimization [40 C.F.R. § 264.73(b)(9)]

Pursuant to 40 C.F.R. § 264.73(b)(9), the facility operating record shall contain a certification by the Permittee, made no less often than annually, that the Permittee has a program in place to reduce the volume and toxicity of hazardous waste the Permittee generates, to the degree determined by the Permittee to be economically practicable; and the proposed method of treatment, storage, or disposal is that practicable method currently available to the Permittee which minimizes any present and future threats to human health and the environment.

V. Air Emission Standards for Tanks and Containers [40 C.F.R. Part 264 Subpart BB and CC]

- A. The Permittee shall comply with the applicable requirements of 40 C.F.R. Part 264 Subpart BB, for all units identified in the approved permit application.
- B. The Permittee shall comply with the applicable requirements of 40 C.F.R. Part 264 Subpart CC, for all units identified in Table 3.

Table 3 - Units Subject to Subpart CC Standards

Unit Identification	Unit Type	Subpart CC Control Option
Used Mineral Spirits Tank	Aboveground Storage Tank	Tank Level 1
Container Storage Area	Container Storage Area	Container Level 1
Flammable Storage Shed	Container Storage Area	Container Level 1

CORRECTIVE ACTION CONDITIONS

The Permittee shall comply with all applicable groundwater monitoring and corrective action requirements contained in 40 C.F.R. Part 264 Subparts F and G, and all provisions of this Permit, for all previously and any newly identified SWMUs, AOCs, and releases identified pursuant to the provisions of this Permit.

I. Identification of SWMUs and AOCs

A. CDM Federal Programs Corporation, on behalf of EPA, completed an Environmental Priority Initiative Preliminary Assessment (EPI/PA) to identify and gather information on releases or potential releases from SWMU(s) and AOC(s) at the facility, including those that appeared to require further investigation. The EPI/PA report, dated March 17, 1992, identified five SWMUs and two AOCs in the operating facility portion of the property. Another AOC (AOC 3) was later identified by the Department. Figure 2 shows the approximate locations of the SWMUs and AOCs at the facility. The SWMUs and AOCs identified are as follows:

1. SWMU 1 - Container Storage Area (CSA)

This SWMU is a container storage area with a maximum capacity of 4,280 gallons. Besides containers holding used solvent, which are opened and emptied in SWMU 3, most containers stored in this area are not opened. Instead, they are stored pending transfer to a treatment, recycling, or disposal facility.

2. SWMU 2 - Flammable Materials Storage Shed (FSS)

This SWMU is a container storage area with a maximum capacity of 2,186 gallons. The FSS is a metal storage shed near the CSA

(SWMU 1) where flammable materials are stored before being transferred to a treatment, recycling, or disposal facility.

3. SWMU 3 - Return and Fill Shelter

This SWMU is an area directly adjacent to the Used Solvent Tank (SWMU 4), where containers of used solvent are emptied into a drum washer. The used solvent is transferred to the tank and the containers are washed and staged to be refilled with clean solvent or stored for future use.

4. SWMU 4 - Aboveground Used Solvent Tank

This SWMU is a 15,000-gallon aboveground storage tank, used to store spent parts washer solvent. It receives material from the Return and Fill Shelter (SWMU 3).

5. SWMU 5 - Aboveground Used Oil and Oily Water Tank Farm

This SWMU includes four 20,000-gallon aboveground storage tanks, used to store used oil and oily water. Currently, these tanks are rarely used.

6. AOC 1 – Facility Storm Drainage

During the visual site inspection, inspectors noticed the property slopes southwest toward a stream. If a large and uncontrolled spill were to occur, waste would likely flow down this slope and directly into the stream. Investigators deemed the potential for release in this way to be small, barring a catastrophic event. No major hazard exists because of this AOC, and there is nothing to suggest that waste has ever been spilled into the stream.

7. AOC 2 – Former Underground Storage Tanks

This area is the former site of an underground storage tank system, comprising three tanks that were located in the general area of the current SWMU 2. After these tanks were removed, mineral spirits-contaminated sands allegedly were removed from the area,

although this cannot be verified. The EPI/PA concluded AOC 2 required further investigation or remediation.

8. AOC 3 – Former Transmission Repair Building

This area is the site of a former transmission repair shop located at the north end of the property. The area is contaminated primarily with total petroleum hydrocarbons (TPH) and trichloroethylene (TCE).

- B. The status of the known SWMUs and AOCs is based on available information at the time of issuance of this Permit. In the event new information becomes available indicating human health or the environment may be adversely impacted, the Permittee may be required to conduct additional investigations and evaluations, as necessary, to determine the need for additional corrective action for the previously identified SWMUs and AOCs, or any newly identified SWMUs and AOCs, including off-site release(s), as specified in Corrective Action Conditions II. and III.
- C. As deemed appropriate by the Department, the Permittee shall conduct additional investigation(s) and/or take corrective action for any previously or newly identified SWMUs and AOCs, including off-property release(s), demonstrating the releases of hazardous waste or hazardous constituents to soil, surface water, sediment, groundwater, and/or air has been thoroughly delineated and reported, as specified in Corrective Action Conditions II. through IX. Any off-property impacts to surface water, sediment, soil, or groundwater shall be addressed if the impacts to these media originated from SWMUs, AOCs, or other releases on the facility property.

II. Notification Requirements for, and Assessment of, Newly Identified SWMU(s) and AOC(s)

- A. The Permittee shall notify the Department, in writing, no later than 15 calendar days after discovery, or after discovery should have been made (e.g., visual observations, laboratory test results, or information not previously available), of any new SWMU(s) or AOC(s) identified after the issuance of this Permit. The Department may examine the facility's inspection records to determine if the Permittee should have known that a release occurred.
- B. The Department may require the Permittee to conduct an investigation of any newly identified SWMU(s) or AOC(s). The Department shall notify the

Permittee, in writing, of this decision. Within 30 calendar days after receiving the Department's request to conduct an investigation, the Permittee shall prepare and submit a SWMU/AOC Assessment Work Plan to the Department for review and approval. The SWMU/AOC Assessment Work Plan shall include, but not be limited to, the following:

1. A discussion of past hazardous wastes management practices related to the unit(s);
 2. A detailed investigation approach for surface and subsurface soils, surface water, groundwater, and air as necessary to:
 - a. Determine if a release of hazardous wastes or hazardous constituents has occurred or is occurring at the unit(s);
 - b. Yield reliable, representative samples and results;
 - c. Determine impacts or potential impacts to human health and the environment; and
 - d. Sufficiently assess all hazardous wastes and hazardous constituents related to the unit(s).
 3. A proposed schedule for implementing the SWMU/AOC Assessment Work Plan, which is predicated on the date the Department approves the plan; and
 4. Identification of all data to be collected that is necessary to provide for a complete SWMU/AOC Assessment Report, as specified below.
- C. The Department shall review and approve the SWMU/AOC Assessment Work Plan according to the procedures described in General Permit Condition IV. The Permittee shall complete all activities described in the SWMU/AOC Assessment Work Plan, according to the schedule contained in the approved plan.
- D. The Permittee shall submit a SWMU/AOC Assessment Report to the Department, according to the schedule specified in the approved SWMU/AOC Assessment Work Plan. The SWMU/AOC Assessment Report shall present and discuss the information obtained under the approved SWMU/AOC

Assessment Work Plan. At a minimum, the SWMU/AOC Assessment Report shall provide the following information for each newly identified SWMU or AOC:

1. The location of the newly identified SWMU or AOC in relation to other SWMU(s) and AOC(s);
 2. The type and function of the SWMU or AOC;
 3. The general dimensions, capacities, and structural description of the SWMU or AOC;
 4. The period during which the SWMU or AOC was operated;
 5. The physical and chemical properties of all wastes that have been or are being managed at the SWMU or AOC, to the extent possible;
 6. The results of any sampling and analysis conducted;
 7. Past and present operating practices;
 8. Previous uses of the area occupied by the SWMU or AOC;
 9. Amounts of waste handled;
 10. Drainage areas and/or drainage patterns near the SWMU or AOC; and
 11. A recommendation as to whether further action is necessary for the newly identified SWMU or AOC and justification for the recommendation. If further action is recommended, such as updating the site conceptual model and/or assessing SWMU/AOC-specific risk, the SWMU/AOC Assessment Report shall include a proposal for additional investigation or corrective action, as appropriate.
- E. The Department shall review and approve the SWMU/AOC Assessment Report according to the procedures described in General Permit Condition IV. Based on the findings of this report and any other available information, the Department shall determine the need for additional investigation, including interim/stabilization measures or a RCRA Facility Investigation (RFI), at specific unit(s) identified in the SWMU/AOC Assessment Report.

- F. If the Department determines additional investigations are needed, the Department may require the Permittee to prepare and submit to the Department for approval, a work plan for such investigations according to the applicable Corrective Action Conditions of this Permit. The Department shall review and approve any such work plan according to the procedures described in General Permit Condition IV. The Permittee shall complete all activities described in the work plan, according to the schedule contained in the approved plan.

III. Notification Requirements for, and Assessment of, Newly Identified Releases from Previously Identified SWMUs and AOCs

- A. The Permittee shall notify the Department, in writing, no later than 15 calendar days after discovery, or after discovery should have been made (e.g., visual observations, laboratory test results, or information not previously available), of any newly identified release(s) of hazardous wastes or hazardous constituents from any previously identified SWMU(s) or AOC(s) at the facility. The Department may examine the facility's inspection records to determine if the Permittee should have known that a release occurred.
- B. The Department may require the Permittee to conduct an investigation of the newly identified release(s). The Department shall notify the Permittee, in writing, of this decision. Within 30 calendar days after receiving the Department's request to conduct an investigation, the Permittee shall prepare and submit a Newly Identified Release Work Plan to the Department for review and approval. The Newly Identified Release Work Plan shall include, but not be limited to, the following:
 - 1. A discussion of the hazardous waste/chemical management practices related to the release(s);
 - 2. A detailed investigation approach for groundwater, land surface and subsurface soils, surface water, and air as necessary to:
 - a. Define the extent of the release area(s);
 - b. Yield reliable, representative samples and results;
 - c. Determine impacts or potential impacts to human health and the environment; and

- d. Sufficiently assess all hazardous wastes and hazardous constituents related to the release(s).
 3. A proposed schedule for implementing the Newly Identified Release Work Plan, which is predicated on the date the Department approves the plan; and
 4. Identification of all data to be collected that is necessary to provide for a complete Newly Identified Release Report, as specified below.
- C. The Department shall review and approve the Newly Identified Release Work Plan according to the procedures described in General Permit Condition IV. The Permittee shall complete all activities described in the Newly Identified Release Work Plan, according to the schedule contained in the approved plan.
- D. The Permittee shall submit a Newly Identified Release Report to the Department, according to the schedule specified in the approved Newly Identified Release Work Plan. The Newly Identified Release Report shall present and discuss the information obtained under the approved Newly Identified Release Work Plan. At a minimum, the report shall provide the following information for each newly identified release:
 1. The location of the newly identified release in relation to the SWMU(s) or AOC(s) under investigation and to any other SWMU(s) and AOC(s);
 2. The general dimensions of the release;
 3. The period during which the release is suspected to have occurred;
 4. The physical and chemical properties of all wastes that have been determined to compose the release;
 5. The results of any sampling and analysis conducted;
 6. Past and present operating practices near and at the location of the release;
 7. Previous uses of the area(s) occupied near and at the location of the release;

8. Amounts of waste handled near and at the location of the release;
 9. Drainage areas and/or drainage patterns near and at the location of the release; and
 10. A recommendation as to whether further action is necessary for the newly identified release from a previously identified SWMU(s) or AOC(s) and justification for the recommendation. If further action is recommended, such as updating the site conceptual model and/or assessing SWMU/AOC-specific risk, the Newly Identified Release Report shall include a proposal for additional investigation or corrective action, as appropriate.
- E. The Department shall review and approve the Newly Identified Release Report according to the procedures described in General Permit Condition IV. Based on the findings of the report and any other available information, the Department shall determine the need for additional investigation, including interim/stabilization measures or an RFI, at specific releases(s) identified in the Newly Identified Release Report.
- F. If the Department determines additional investigation is needed, the Department may require the Permittee prepare and submit to the Department for review and approval, a work plan for such investigations according to the applicable Corrective Action Conditions of this Permit. The Department shall review and approve any such work plan according to the procedures described in General Permit Condition IV. The Permittee shall complete all activities described in the work plan, according to the schedule contained in the approved plan.

IV. Interim/Stabilization Measures (ISMs)

- A. In June 2004, the Permittee conducted an enhanced bioremediation pilot test at the facility, with a full-scale injection of Hydrogen Release Compound (HRC[®]) following in May 2006. Trihydro Corporation, on behalf of the Permittee, submitted a Post-Injection Remedial Action Report, dated June 27, 2006. A work plan for further enhanced bioremediation was submitted May 31, 2019, which the Department is reviewing.

- B. Should the Permittee become aware of a situation that may require any additional ISMs that may be necessary to protect human health or the environment, the following conditions shall apply:
1. The Permittee shall notify the Department, in writing, by e-mail, or by telephone, within 24 hours after becoming aware, or should have become aware, of a situation that may require ISMs to protect human health or the environment. The Department may examine the facility's inspection records to determine if the Permittee should have known ISMs might be required and notification should have occurred.
 2. If, during the course of any activities initiated under this Permit, the Permittee or Department determines a release or potential release of hazardous wastes or hazardous constituents poses a threat to human health or the environment, the Department may require ISMs in coordination with the Permittee, to slow or stop the further spread of contamination until final corrective action measures are implemented. The Department shall determine the specific action(s) that shall be taken to implement the ISMs, including potential permit modifications, and the schedule for implementing the ISMs. The Department shall notify the Permittee, in writing, of decisions regarding the action(s). This requirement shall not preclude the Permittee from responding to an emergency situation without direction from the Department.
 3. The Permittee shall notify the Department, in writing or by e-mail, no later than 10 calendar days after determining that the ISMs are not effectively limiting or stopping the further spread of contamination. The Department may require the ISMs be revised to make them effective in limiting or stopping the spread of contamination, or that additional corrective action measures are required to address the contaminated media.
 4. In cases where releases or potential releases present minimal exposure concerns, or the remedial solution is relatively uncomplicated, the Permittee may propose ISMs to the Department for review and approval. These ISMs shall be consistent with, and may supplement or satisfy the requirements for, a final remedy(s) in specific areas. Proposed ISMs the Department determines to be significant (e.g., those which are anticipated to make up a substantial part of the final remedy) may be subject to public review and comment before final

Department approval. Proposed ISMs determined by the Department not to be significant will be reviewed and approved according to the procedures described in General Permit Condition IV.

V. RCRA Facility Investigation (RFI) Work Plan

- A. If the Department determines additional investigations are needed, the Department may require the Permittee to conduct an RFI. The Department shall notify the Permittee, in writing, of this decision. Within 60 calendar days after receiving the Department's request to conduct an RFI, and after meeting with the Department to discuss the content of the Work Plan, the Permittee shall prepare and submit an RFI Work Plan to the Department for review and approval.
- B. The RFI Work Plan shall be designed to investigate releases of hazardous wastes and hazardous constituents to all appropriate media of concern, including surface and subsurface soils, surface water, sediment, groundwater, and air, as necessary. In order to substantiate future corrective action decisions, the RFI Work Plan shall contain provisions sufficient to meet the following objectives and a proposed schedule for implementing the RFI Work Plan, which is predicated on the date the Department approves the plan:
 - 1. Full characterization of the nature, vertical and horizontal extent, and rate of migration of releases of hazardous wastes and hazardous constituents from SWMUs and AOCs, or groups of SWMUs and AOCs, or newly identified release(s) at the facility and the actual or potential receptors of such releases; and
 - 2. Collection of any other pertinent data that may be used to substantiate future corrective action decisions.
- C. The RFI Work Plan shall be appropriate for facility-specific conditions and shall be consistent with and address all applicable investigation elements described in the EPA document entitled, RCRA Facility Investigation (RFI) Guidance, EPA 530/SW-89-031, May 1989, or the most recent version. Any required RFI activities shall also be conducted using the approaches contained in the EPA document entitled, Resource Conservation and Recovery Act Facilities Investigation Remedy Selection Track (RCRA FIRST): A Toolbox for Corrective Action, May 20, 2016. At a minimum, the RFI Work Plan shall

detail all proposed activities and procedures to be conducted at the facility, including, but not limited to, the following:

1. A description of current conditions;
 2. The schedule for implementing and completing such investigations and for submitting reports (including the RFI Report);
 3. The qualifications of personnel performing or directing the investigations, including contractor personnel; and
 4. The overall management of the RFI activities.
- D. The RFI Work Plan shall include a Quality Assurance Project Plan (QAPP). The QAPP shall present the policies, organization, objectives, functional activities, and specific quality assurance and quality control activities designed to achieve the data quality goals of the RFI. It shall include, at a minimum, the RFI objectives, sampling procedures, analytical methods, field and laboratory quality control samples, chain-of-custody procedures, and data review, validation, and reporting procedures. The Permittee shall follow the EPA document entitled, EPA Requirements for Quality Assurance Project Plans, EPA QA/R-5, March 2001, (reissued May 2006) or the most recent version.
- E. The Permittee shall prepare and maintain a Health and Safety Plan during the project that assures the RFI activities are conducted in a manner that is protective of human health and the environment.
- F. Due to the complexity of defining the extent of contamination, the Permittee may be required to use a phased approach that requires submitting supplemental RFI Work Plans.
- G. The Department shall review and approve the RFI Work Plan(s) according to the procedures described in General Permit Condition IV. The Permittee shall complete all activities described in the RFI Work Plan(s), according to the schedules contained in the approved plan(s).

VI. RCRA Facility Investigation (RFI) Report

- A. Should submitting an RFI Work Plan become necessary, the Permittee shall submit an RFI Report to the Department, according to the schedule specified in the approved RFI Work Plan described in Corrective Action Condition V. The RFI Report shall present all information obtained under the approved RFI Work Plan, along with a brief facility description and map showing the property boundary and all SWMUs and AOCs. The RFI Report shall contain adequate information to support additional corrective action decisions at the facility. Information contained in the RFI Report shall be presented in a format consistent with Section 5 of the EPA document entitled, RCRA Facility Investigation (RFI) Guidance, EPA 530/SW-89-031, May 1989, or the most recent version.
- B. The RFI Report shall provide an interpretation of the RFI information gathered, supported with adequate documentation, to enable the Department to determine whether ISMs or a Corrective Measures Study (CMS) may be necessary. The RFI Report shall describe the procedures, methods, and results of all investigations of SWMUs and AOCs and associated releases, including, but not limited to, the following, as appropriate:
1. Characterization of the nature, concentration(s), horizontal and vertical extent, and direction/rate of migration of releases from SWMUs and AOCs at the facility;
 2. Characterization of the environmental setting of the facility, including:
 - a. Hydrogeological conditions;
 - b. Climatological conditions;
 - c. Soil and bedrock characteristics;
 - d. Surface water and sediment quality; and
 - e. Air quality and meteorological conditions.
 3. Characterization of SWMUs and AOCs from which releases have been or may be occurring, including unit and waste characteristics;

4. Descriptions of human and environmental receptors and associated risks to the receptors which are, may have been, or, based on site-specific circumstances, could be exposed to release(s) from SWMUs and AOCs;
 5. Assessment of potential risks to the human and environmental receptors exposed to release(s) from SWMUs and AOCs;
 6. Extrapolations of future contaminant migration, including description of contaminant fate and transport mechanisms, and pathways for human and environmental exposure;
 7. Laboratory, bench-scale, pilot-scale, and/or appropriate tests or studies to determine the feasibility or effectiveness of treatment technologies or other technologies that may be appropriate in implementing remedies at the facility;
 8. Statistical analyses to aid in interpreting data;
 9. Results of any ISMs previously implemented; and
 10. Evaluation of data quality that may affect the nature and scope of a CMS, as well as the evaluation of corrective measures alternatives thereunder (e.g., identifying any potential bias in the RFI data and documenting its precision, accuracy, representativeness, completeness, comparability, validation, etc.).
- C. The Department shall review and approve the RFI Report according to the procedures described in General Permit Condition IV. If the Department determines the objectives of the RFI have not been met, the Department may require additional investigation. Upon approval of the RFI Report, the Department shall notify the Permittee, in writing, of the next step in the corrective action process, which may include submitting a CMS Work Plan or equivalent, as described in Corrective Action Condition VII.

VII. Corrective Measures Study (CMS) Work Plan

TriHydro Corporation, on behalf of the Permittee, submitted a CMS Work Plan to the Department on January 25, 2008, which the Department approved on July 30, 2008.

- A. If the Department determines there has been a release of hazardous waste or hazardous constituents from newly or previously identified SWMUs or AOCs that may pose a threat to human health or the environment, the Department may require the Permittee to conduct a supplemental CMS or remedy evaluation. The Department shall notify the Permittee, in writing, of this decision. The notice shall identify the hazardous constituent(s) of concern and may specify remedial alternatives for the Permittee to evaluate.
- B. As part of the supplemental CMS or remedy evaluation, the Department may require the Permittee to evaluate one or more specific remedial alternatives for removing, containing, or treating hazardous wastes and hazardous constituents in contaminated media, based on the objectives established for the corrective action. These remedial alternatives may include a specific technology or combination of technologies that, in the Department's judgment, may be capable of achieving standards for protecting human health and the environment.
- C. Within 45 calendar days after receiving the Department's request to conduct a supplemental CMS or remedy evaluation, and after meeting with the Department to discuss the nature and scope of the supplemental CMS or remedy evaluation, the Permittee shall prepare and submit a supplemental CMS Work Plan or Remedy Evaluation Plan to the Department for review and approval. The supplemental CMS Work Plan or Remedy Evaluation Plan shall be generally consistent with the EPA document entitled, RCRA Corrective Action Plan (Final), OSWER Directive 9902.3-2A, May 1994, or the most recent version. Any required CMS activities shall be conducted using the approaches contained in the EPA document entitled, Resource Conservation and Recovery Act Facilities Investigation Remedy Selection Track (RCRA FIRST): A Toolbox for Corrective Action, May 20, 2016. At a minimum, the supplemental CMS Work Plan or Remedy Evaluation Plan shall provide the following information, as appropriate, and a proposed schedule for implementing the elements of the supplemental CMS Work Plan or Remedy Evaluation Plan:
1. A description of the general approach to investigating and evaluating potential remedial alternatives or combinations of alternatives;
 2. A definition of the specific objectives of the study/evaluation;

3. A description of the remedial alternative or combination of alternatives that will be studied;
 4. A description of those potentially viable remedial alternatives initially considered, but were dropped from further consideration, including the rationale for elimination;
 5. The specific plans for evaluating remedial alternatives or combination of alternatives to ensure compliance with applicable remedy selection threshold/balancing criteria and cleanup standards;
 6. A schedule for conducting the study/evaluation and submitting a CMS Report or equivalent and/or preferred remedy proposal, which is predicated on the date the Department approves the supplemental CMS Work Plan or Remedy Evaluation Plan;
 7. The proposed format for ranking remedial alternatives or a combination of alternatives in support of a preferred remedial alternative or combination of alternatives; and
 8. Identification of laboratory, bench-scale, pilot-scale, and/or other appropriate tests or studies that will be used to determine the feasibility or effectiveness of treatment technologies, or other technologies that may be appropriate in implementing remedial alternatives at the facility.
- D. The Department shall review and approve the supplemental CMS Work Plan or Remedy Evaluation Plan according to the procedures described in General Permit Condition IV. The Permittee shall complete all activities described in the supplemental CMS Work Plan or Remedy Evaluation Plan, according to the schedule contained in the approved plan.

VIII. Corrective Measures Study (CMS) Report

TriHydro Corporation, on behalf of the Permittee, submitted a CMS Report to the Department on January 30, 2009. Multiple subsequent investigations have been performed to further delineate releases at the site; the CMS report submitted will need updating and resubmitted for Department review.

- A. Should submitting a supplemental CMS Work Plan or Remedy Evaluation Plan become necessary, the Permittee shall submit a supplemental CMS or Remedy Evaluation Report to the Department, according to the schedule specified in the approved supplemental CMS Work Plan or Remedy Evaluation Plan described in Corrective Action Condition VII. The supplemental CMS or Remedy Evaluation Report shall present all information obtained under the approved supplemental CMS Work Plan or Remedy Evaluation Plan and shall be generally consistent with guidance contained in the EPA document entitled, RCRA Corrective Action Plan (Final), OSWER Directive 9902.3-2A, May 1994, or the most recent version.
- B. The supplemental CMS or Remedy Evaluation Report shall describe and discuss each remedial alternative or combination of alternatives evaluated, including any bench-scale or pilot tests conducted. The supplemental CMS or Remedy Evaluation Report shall include, but not be limited to, the following information:
1. Evaluation of the performance, reliability, ease of implementation, and potential impacts of each remedial alternative or combination of alternatives, including safety impacts, cross media impacts, overall carbon footprint, and control of exposure to any residual contamination;
 2. Assessment of the effectiveness of each remedial alternative or combination of alternatives in terms of achieving adequate control of contaminant sources and cleanup of hazardous waste and/or hazardous constituents released from the SWMU(s) and AOC(s);
 3. Estimation of the time required to begin and complete implementation of each remedial alternative or combination of alternatives, and an estimate of the time required to meet the proposed remediation objectives contained in the supplemental CMS or Remedy Evaluation Report;
 4. Estimation of the costs to implement, operate, monitor, and maintain each remedial alternative or combination of alternatives;
 5. Recommendation of a preferred remedial alternative or combination of alternatives, and rationale for the proposed selection; and

6. Assessment of institutional requirements that may be needed (e.g., state or local permits), discussion of other environmental or public health requirements or institutional controls that may substantially affect implementing the preferred remedial alternative or combination of alternatives (e.g., local ordinances), and a draft of any facility-specific institutional controls proposed as part of the preferred remedial alternative or combination of alternatives (e.g., a draft environmental covenant containing specific activity and use limitations prepared pursuant to the Missouri Environmental Covenants Act, Sections 260.1000 through 260.1039, RSMo.).
- C. The supplemental CMS or Remedy Evaluation Report shall contain information sufficient to facilitate the Department's development of a Statement of Basis in support of the final remedy decision-making process.
- D. The Department shall review and approve the supplemental CMS or Remedy Evaluation Report according to the procedures described in General Permit Condition IV. Upon approval of the supplemental CMS or Remedy Evaluation Report, the Department will approve a final remedy, as specified in Corrective Action Condition IX.

IX. Final Remedy Selection and Approval

- A. Following the approval of the CMS or Remedy Evaluation Report, as described in Corrective Action Condition VIII., the Department shall, in coordination with the Permittee, prepare a Statement of Basis summarizing the remedial alternatives evaluated by the Permittee and the Department's basis of support for the proposed final remedy.
- B. Following preparation of the Statement of Basis, a permit modification shall be initiated according to 40 C.F.R. § 270.41 or § 270.42(c), as applicable, to facilitate public review and comment on the Statement of Basis and proposed final remedy, Department approval of a final remedy, and Permittee implementation of the approved final remedy. When, and if, required, the Permittee shall provide assurances of financial responsibility for the approved corrective action final remedy, according to 40 C.F.R. § 264.101(b), and as specified in the Financial Assurance Conditions of this Permit.

- C. Upon completion of the public participation activities associated with the permit modification to implement the proposed final remedy, the Department shall approve a final remedy that shall:
 - 1. Be protective of human health and the environment;
 - 2. Control and/or eliminate the source(s) of contaminants so as to reduce or eliminate, to the maximum extent practicable, further contaminant releases, exposures, or migration that may pose a threat to human health and the environment; and
 - 3. Meet all applicable federal, state, and local laws and regulations.

X. Corrective Measures Implementation (CMI) Work Plan

- A. The Permittee shall submit a CMI Work Plan to the Department, according to the schedule established in conjunction with any permit modification to implement the approved final remedy. The CMI Work Plan shall provide detailed design specifications, construction plans, and a schedule for implementing the final remedy. The CMI Work Plan shall provide detailed plans for remedy implementation, consistent with all applicable CMI components as specified in the EPA document entitled, RCRA Corrective Action Plan (Final), OSWER Directive 9902.3-2A, May 1994, or the most recent version, and shall be consistent with the objectives specified in the approved CMS Report. The CMI Work Plan shall also contain the following:
 - 1. Detailed technical descriptions of the design, construction, operation, maintenance, monitoring, and quality assurance requirements;
 - 2. A detailed schedule for design, construction, and monitoring;
 - 3. Timeframes for submitting the relevant work plans described in the OSWER Directive referenced above;
 - 4. Management procedures for hazardous wastes and hazardous constituents recovered as a result of implementing the corrective measures;
 - 5. Environmental Covenant requirements as described under Corrective Action Condition XIV.; and

6. Other information, as necessary, pertaining to the design and implementation of the corrective measure(s) in the approved final remedy.
 - B. Those elements of the approved final remedy that have received prior approval and are operational before submitting the CMI Work Plan should be incorporated in the CMI Work Plan by reference, along with additional information requested by the Department.
 - C. The Department shall review and approve the CMI Work Plan according to the procedures described in General Permit Condition IV. The Permittee shall implement the CMI Work Plan, according to the schedule contained in the approved plan.

XI. Certification of Completion of Constructed Final Remedy

- A. If the Department or Permittee determines a final remedy is necessary, all current Corrective Action Conditions shall continue to be in force, unless and until appropriate permit modifications are reviewed and approved.
- B. Within 60 calendar days after completing all construction activities associated with implementing any approved final remedy, the Permittee shall submit a written certification to the Department, by certified mail, stating the final remedy has been constructed according to this Permit, the approved CMS or Remedy Evaluation Report, final remedy decision, and CMI Work Plan. The certification shall be signed by the Permittee and a professional engineer or geologist registered in Missouri.

This certification shall be part of a Construction Completion (CC) Report. The CC Report shall contain a summary of all final remedy construction activities implemented at the facility (including any previously implemented ISMs), the exact location(s) and design of any new wells, and discussion of any deviations from the approved CMI Work Plan. The CC Report shall also address the information described in Chapter V, Section VI, of the EPA document entitled, RCRA Corrective Action Plan (Final), OSWER Directive 9902.3-2A, May 1994, or the most recent version.

- C. For SWMUs or AOCs requiring extended time periods for operating the final remedy, the Permittee shall summarize the final remedy progress and continue to provide data obtained during final remedy operation, maintenance, and

monitoring in the Annual Groundwater Corrective Action Report, required in Corrective Action Condition XVI. Any short-term completion of additional corrective action activities at individual SWMUs shall be included in the Annual Groundwater Corrective Action Report.

XII. Certification of Completion of Corrective Measures

- A. When the Permittee decides to verify completion of corrective measures at a SWMU, group of SWMUs, or facility-wide, the Permittee shall submit to the Department, documentation to demonstrate groundwater contaminant levels do not exceed the applicable GPS or approved ACLs specified in Corrective Action Condition XIV., the SAP required by Corrective Action Condition XIV.C.1., and as specified in Tables 4 and 5. The Permittee's groundwater corrective action program shall continue until the Permittee demonstrates, individually or collectively, that these limits have not been exceeded for a period of three consecutive years at each SWMU, group of SWMUs, or facility-wide. Groundwater corrective action may stop at any individual SWMU or group of SWMUs, once the Department reviews and approves the Permittee's demonstration and this Permit is successfully modified according to 40 C.F.R. §§ 270.41 or 270.42(c), as appropriate, to recognize this demonstration has been completed. Documentation related to the certification of completion of corrective measures can be included in the Annual Groundwater Corrective Action Report submitted according to Corrective Action Condition XVI., or submitted as a stand-alone document under separate cover.
- B. The Department shall review and approve the documentation verifying completion of all corrective action at each SWMU, group of SWMUs, or facility-wide, according to the procedures described in General Permit Condition IV.
- C. Within 60 calendar days after receiving the Department's approval of the documentation verifying completion of all corrective action under Corrective Action Condition XI., the Permittee shall submit a written certification to the Department, by certified mail, stating the final remedy has been completed according to the approved CMS or Remedy Evaluation Report, approved final remedy decision, and CMI Work Plan. The certification shall be signed by the Permittee and a professional engineer or geologist registered in Missouri.

- D. Facility-wide cessation of the groundwater corrective action program will require submitting a Groundwater Remediation Completion Report that addresses all factors identified in Corrective Action Condition XII.A., above, in support of a Class 3 Permit Modification or permit termination, following the requirements of 40 C.F.R. § 270.42(c) and the public notice and opportunity for comment requirements of 10 CSR 25-8.124.

XIII. Activity and Use Limitations (AULs)

AULs are legal or physical restrictions or obligations with respect to the permitted facility property. AULs place a legal responsibility and physical restrictions or limitations on the use of, or access to, the permitted facility property. The following AULs apply to the Permittee and the facility property subject to the jurisdiction of this Permit:

- A. Soil or Other Environmental Media Disturbance at the Facility
 - 1. The Permittee shall notify the Department at least 30 calendar days before any planned construction, excavation, or maintenance and repair activities that may disturb existing contamination at any SWMU, AOC, or other area subject to AULs. The Permittee shall, in coordination with the owner(s) of any off-property areas impacted by soil and/or groundwater contamination originating from SWMUs and AOCs at the facility, assess the potential hazards associated with activities that potentially disturb or expose any contaminated environmental media and ensure that necessary precautions are taken, including protective and/or remedial measures, before performing the activity. In situations where advance notice is not feasible (i.e., emergency utility service or repair), notice shall occur as soon as practical. Future construction, excavation activities, or land use changes may necessitate further evaluation of conditions at SWMUs or AOCs having residual levels of contamination that exceed applicable regulatory thresholds.
 - 2. The Permittee may, at its discretion, request to develop an Excavated Soil Management Plan. Any such plan would be designed to expedite future subsurface utility and construction activities in known and potentially contaminated areas at the facility. The Department shall review and approve the Excavated Soil Management Plan according to the procedures described in General Permit Condition IV.

B. Transfer of Interest in Permitted Property

1. The Permittee shall notify the Department at least 90 calendar days before transferring any interest in any portion of the permitted facility property. The Permittee shall comply with all requirements of 40 C.F.R. § 270.40, as related to any transfer of ownership or operational control of any portion of the permitted facility.
2. Any proposal by the Permittee to remove any parcel of the permitted facility property from the jurisdiction of this Permit shall require submitting a demonstration that all contamination on the portion of the property proposed for removal is protective of human health and the environment. Such demonstrations can be made by demonstrating the concentrations are below applicable regulatory standards consistent with any enforceable institutional and/or engineering controls contained in an environmental covenant for that portion of the property or that any residual contamination will be addressed in the future via implementing enforceable institutional controls.
3. Any parcel of the permitted facility property proposed to be removed from the jurisdiction of this Permit shall require a legal survey for that portion of the property, execution of an environmental covenant, if needed and such a covenant is not already in place at the time of the proposal, and successful completion of a Class 3 Permit Modification to remove the proposed portion of the property from the jurisdiction of this Permit, following the requirements of 40 C.F.R. § 270.42(c), and the public notice and opportunity for comment requirements of 10 CSR 25-8.124

C. Change in Use of Property

The Permittee shall notify the Department, according to 40 C.F.R. § 270.30(h), at least 30 calendar days before any proposed change in the use of the facility property, including any applications for building permits for work on the facility property or proposals for work that could potentially affect the contamination on the facility property, be affected by contamination from a SWMU or AOC, or affect compliance with the requirements of this Permit.

D. Deed Notice/Restrictions

The Permittee shall file with the Recorder of Deeds of St. Charles County in Missouri, a deed restriction in the chain-of-title for the facility associated with the management of hazardous waste or constituents. Proof of any such filing shall be provided to the Department.

E. Missouri Environmental Covenants Act

If, and when, the Department determines implementing an Environmental Covenant is required at the facility, an Environmental Covenant shall be developed and executed that complies with the Missouri Environmental Covenants Act, Section 260.1000 through 260.1039, RSMo, and Departmental guidance provided to the Permittee. The following requirements shall apply to any Environmental Covenant required by this Permit.

1. Within 60 calendar days after the Department's request to implement an Environmental Covenant, the Permittee shall prepare and submit to the Department for review and approval, a draft Environmental Covenant that complies with the Missouri Environmental Covenants Act, Sections 260.1000 through 260.1039, RSMo, to be filed in the property chain-of-title. The Permittee shall assure that use, occupancy, and activities on the permitted property are restricted as follows:
 - a. The facility property shall not be used for residential purposes, which includes, but is not limited to, single family homes, duplexes, multi-plexes, apartments, condominiums, schools, retirement or senior/childcare facilities, or any land use where persons can be expected to reside.
 - b. In the event that construction or excavation work that may expose workers to contaminated soil or groundwater is to be performed on the facility property, the Permittee shall ensure that actual notice is provided in advance, both verbally and in writing, to any person or entity performing any work that will or is likely to result in exposure to such soil or groundwater, so appropriate protective measures are taken to protect such workers' health and safety, according to applicable health and safety laws and regulations.

- c. Residual levels of contamination in the groundwater at the facility may pose a threat to human health and the environment. The Permittee shall prohibit the use of and exposure to contaminated groundwater and prohibit any artificial penetration of the groundwater-bearing unit(s) containing contaminants, which could result in cross-contamination of clean groundwater bearing units. Such penetrations are allowable if necessary for corrective action purposes and approved by the Department, in writing, in advance. The Permittee shall also prohibit installing any groundwater wells on the facility property, except those used for investigation, monitoring, or remediation purposes, without prior Department approval. Groundwater beneath the permitted facility, in zones that are known to be contaminated, shall not be used as a water supply for any purpose.
2. The draft Environmental Covenant shall include the following:
 - a. A record of the type, location, and concentrations of hazardous wastes and hazardous constituents remaining in the subsurface soils and/or groundwater exceeding applicable regulatory risk-based thresholds/standards;
 - b. Two figures illustrating the approximate boundaries of each SWMU for which the levels of contamination in the subsurface soils and/or groundwater exceed the applicable regulatory risk-based thresholds/standards. One figure shall illustrate soil contamination in relation to individual SWMUs or groups of SWMUs. The second figure shall illustrate groundwater contamination in relation to individual SWMUs or groups of SWMUs. The figures shall be to scale and indicate the location and dimensions of each SWMU with respect to key landmarks, such as major buildings, the permitted facility property line, etc. These figures shall also illustrate the location of any engineered controls implemented as part of the final remedy, which are to be restricted from disturbance;
 - c. Soil disturbance and groundwater use restrictions based on current land use; and

- d. A provision to provide for proper operation and maintenance of any engineering controls implemented as part of the approved final remedy to prevent unacceptable human exposure to soils and groundwater contaminated with hazardous wastes or hazardous constituents in concentrations exceeding applicable regulatory risk-based thresholds/standards at the time of permit termination. The engineering controls shall not be disturbed and shall remain in place and be effective until the Department provides written approval to alter, modify, eliminate, or otherwise cease operation and maintenance of such controls.
3. The Department shall review and approve the draft Environmental Covenant according to the procedures described in General Permit Condition IV.
4. Within 30 calendar days after the Department's approval of the draft Environmental Covenant, the Permittee shall execute the Environmental Covenant, incorporating any changes necessitated in response to public comments, and shall submit the Environmental covenants to all other relevant parties for signature.
5. Within 15 calendar days after all relevant parties have executed the Environmental Covenant for the permitted facility property, or for any off-property areas impacted by soil and/or groundwater contamination originating from SWMUs and AOCs on the facility property, the Permittee shall record the executed Environmental Covenant with the county recorder of deeds, the local zoning authority, or the authority with jurisdiction over local land use, according to state law. The executed Environmental Covenant shall be recorded in the chain-of-title for all affected properties, or on some other instrument, which is normally examined during a title search, that will, in perpetuity, notify any potential purchaser of the environmental conditions of the property(ies).
6. Within 30 calendar days after recording the executed Environmental Covenant, the Permittee shall submit to the Department, a notarized statement certifying the executed Environmental Covenant has been recorded, including a copy of the Environmental Covenant showing the book/page/instrument number of recordation.

7. The Environmental Covenant shall run with the land (permitted facility property) and shall be binding upon any future owners, operators, heirs, successors, lessees, or assigns and their authorized agents, employees, or persons acting under their direction or control. In the event of permit termination, the Permittee and/or facility owner shall cause any lease, grant, or other transfer of any interest in the facility property to include a provision expressly requiring the lessee or transferee to comply with the Environmental Covenant conditions filed in the chain-of-title for the facility property.
 8. In the event that future additional remediation on the permitted facility property, before or after permit termination, reduces contaminants to levels below applicable risk-based threshold/standards based on use of the property, the AULs, or portions thereof, contained in the Environmental Covenant may be rescinded and/or modified according to the provisions specified in the Environmental Covenant. This may include placing an additional document in the property chain-of-title indicating the Environmental Covenant, or portions thereof, have been rescinded and/or modified.
- F. Environmental Covenant Provision Requirements Before Permit Termination
1. If the Permittee or facility owner desires to rescind or modify all or part of a previously executed Environmental Covenant, the Permittee shall submit a proposal to the Department at least 180 calendar days before the effective date of any proposed permit transfer or termination. This proposal shall contain a demonstration, signed by the Permittee that evaluates the residual levels of contamination in comparison with then-current risk-based thresholds/standards. The Permittee shall demonstrate that residual contaminant levels have decreased to less than the applicable risk-based thresholds/standards in support of rescinding and/or modifying established AULs. The demonstration shall include, at a minimum, a summary of analytical data collected during any monitoring and/or confirmation sampling of contaminated media, a summary of all relevant historical data, accompanying narrative discussion, and any other relevant information that will ensure residual contaminant levels will be protective of human health and the environment if specific AULs are rescinded or modified.

2. If the Department determines, based on the demonstration required in Corrective Action Condition XIV.D., that the residual levels of contamination present may still pose a threat to human health or the environment based on use of the property, the Department shall notify the Permittee, in writing, that the terms of the existing Environmental Covenant are still appropriate or that the Permittee shall prepare and submit for approval, a revised draft Environmental Covenant to address the changed conditions at the facility. Within 60 calendar days after receiving the Department's notification, the Permittee shall prepare and submit a revised draft Environmental Covenant to the Department for review and approval. The revised Environmental Covenant shall include the following:
 - a. A record of the type, location, and concentrations of hazardous wastes and hazardous constituents expected to remain in the subsurface soils and/or groundwater that will exceed the currently applicable regulatory risk-based thresholds/standards at the time of proposed revision of the Environmental Covenant and/or termination of this Permit;
 - b. Two figures illustrating the boundary of each SWMU and AOC for which the levels of contamination in the subsurface soils and/or groundwater exceed the applicable regulatory risk-based thresholds/standards at that time. One figure shall illustrate soil contamination in relation to individual SWMUs or groups of SWMUs at the time of proposed revision of the Environmental Covenant and/or termination of this Permit. The second figure shall illustrate groundwater contamination in relation to individual SWMUs or groups of SWMUs at the time of proposed revision of the Environmental Covenant and/or termination of this Permit. The figures shall be to scale and indicate the location and dimensions of each SWMU with respect to key landmarks, such as major buildings, the permitted facility property boundaries, etc. These figures shall also illustrate the location of any engineered controls implemented as part of the approved final remedy, which are to be restricted from disturbance;

- c. Groundwater use restrictions applicable at the time of proposed revision of the Environmental Covenant and/or termination of this Permit; and
 - d. A provision to provide for continued proper operation and maintenance of any engineering controls implemented as part of the final remedy to prevent unacceptable human and/or environmental exposures to disposed wastes or soils and/or groundwater contaminated with hazardous wastes or hazardous constituents in concentrations exceeding applicable regulatory risk-based thresholds/standards at the time of proposed revision of the Environmental Covenant and/or termination of this Permit. Any engineering controls shall not be disturbed and shall remain in place and be effective until the Department provides written approval to alter, modify, eliminate, or otherwise cease operation and maintenance of such controls.
3. If the Department determines the demonstration required in Corrective Action Condition XII.A. is sufficient to support eliminating and/or modifying established AULs, the Department shall direct the Permittee to prepare and submit to the Department for review and approval, a revised draft Environmental Covenant to address the changed conditions at the facility.
4. The Department shall review and approve the revised draft Environmental Covenant according to the procedures described in General Permit Condition IV.
5. The Permittee shall record the approved revised Environmental Covenant as outlined in Corrective Action Condition XIII.E.5., and submit any related documentation to the Department according to the schedule outlined in Corrective Action Conditions XIII.E.1. and E.2. The Permittee shall also comply with any additional Environmental Covenant conditions as outlined in Corrective Action Conditions XIII.E.7. through E.9., as appropriate.

XIV. Groundwater Monitoring and Corrective Action Program [40 C.F.R. Part 264 Subpart F]

A. GPS, Hazardous Constituents, and Concentration Limits [40 C.F.R. § 264.101]

The GPS establishes the maximum contaminant levels for hazardous constituents (40 C.F.R. 261, Appendix VIII) throughout the groundwater contaminant plume(s) at the facility. These levels must not be exceeded where groundwater use is possible (i.e., beyond the permitted facility property boundaries), since no enforceable groundwater use restrictions currently exist on properties next to the permitted facility. The hazardous constituents and related contaminants, currently published health- and/or environmental-based concentration limits, and maximum analytical detection limits specified in Table 4 constitute the GPS for the Permittee's SWMUs. The listed GPS hazardous constituents and related contaminants have been detected in the groundwater beneath the permitted facility and are reasonably expected to be in or derived from hazardous wastes or hazardous constituents managed at the SWMUs and AOCs at the facility.

1. The GPS for the hazardous constituents and related contaminants listed in Table 4 are based on protecting human health and the environment. These limits were derived from several different sources, as explained by the footnotes to Table 4.
2. The GPS for some hazardous constituents and related contaminants is below the lowest, reasonably achievable analytical method detection limit due to limitations in current analytical technology. In these cases, the GPS shall be equal to the corresponding GPS maximum detection limit.
3. The allowable maximum detection limit shall never be greater than the GPS. If the GPS for specific hazardous constituents cannot be achieved due to matrix interferences or other reasonable analytical limitations, as long as appropriate supporting documentation is provided, the affected sample(s) and associated chemical analysis shall be exempted from this requirement. However, such an exemption does not in any way relieve the Permittee from complying with the GPS.

4. The Department reserves the right, based on future advances in analytical technology, to modify this Permit to require the Permittee to achieve analytical detection limits for the hazardous constituents and related contaminants covered by Corrective Action Condition XIV.A.6., which allow for adequate comparison with appropriate health- or environmental protection-based GPS concentration limit(s) indicated in the footnotes to Table 4.
5. The Permittee may make a demonstration to the Department, at any time during the term of this Permit, for establishing ACLs in lieu of the GPS contained in this Permit. Any such demonstration shall ensure any and all ACLs proposed in lieu of the GPS are protective of human health and the environment, according to the requirements of 40 C.F.R. §§ 264.94(b)(1) and (b)(2). In proposing an ACL(s), the Permittee shall consider and formally address these factors listed in 40 C.F.R. §§ 264.94(b)(1) and (b)(2), and the EPA document entitled, Interim Final Alternate Concentration Limit Guidance, Part I, OSWER Directive 9481.00-6C, EPA 530/SW-87-017, July 1987. Any ACL(s) proposed by the Permittee shall be processed as a Class 3 Permit Modification, following the requirements in 40 C.F.R. § 270.42(c) and the public notice and opportunity for comment requirements in 10 CSR 25-8.124.
6. The Permittee shall propose modification of the GPS to include any additional hazardous constituent(s) (40 C.F.R. Part 261, Appendix VIII.) identified in the groundwater and its presence confirmed during future sampling and analysis, if such constituents may be attributed to past operation of the regulated unit(s) and/or the degradation of hazardous constituents known to be present in the groundwater. The 40 C.F.R. Part 264, Appendix IX. groundwater sampling and analysis requirements contained in Corrective Action Condition XIV.D.6. shall be used as the basis for determining if adding hazardous constituents to the GPS is necessary. The Permittee can demonstrate that a source other than facility operations caused the presence of such hazardous constituent(s) or the apparent presence was a result of an error in sampling, analysis, or evaluation. For the demonstration under this paragraph to be considered, the Permittee shall:

- a. Within seven calendar days after determining that an additional hazardous constituent has been discovered, notify the Department in writing that the Permittee intends to make a demonstration under this paragraph.
- b. Within 90 calendar days, submit a report to the Department that demonstrates a source other than the facility operations caused the hazardous constituent presence or that the presence resulted from an error in sampling, analysis, or evaluation.

Any addition of hazardous constituents to the GPS as a result of the above determination shall require a Class 1 Permit Modification with Prior Director's Approval. Any other changes to the GPS list of hazardous constituents shall require a permit modification, according to 40 C.F.R. § 270.42.

Table 4 - Groundwater Protection Standards

Hazardous Constituent	CAS No.¹	Maximum Concentration Limit (µg/l)	Maximum Detection Limit (µg/l)[*]
2-Butanone (MEK)	78-93-3	5600(c)	25
Chlorobenzene	108-90-7	100(a)	0.180
Chloroform	67-66-3	0.22(c)	1.0
Chloromethane	74-87-3	5(b)	1.0
1,1-Dichloroethane	75-34-3	2.8(c)	0.240
1,1-Dichloroethene	75-35-4	7(a)	0.250
Cis-1,2-Dichloroethene	156-59-2	70(a)	0.210
Trans-1,2-Dichloroethene	156-60-5	100(a)	0.230
1,2-Dichlorobenzene	95-50-1	600(b)	0.190
1,4-Dichlorobenzene	106-46-7	75(b)	0.170
Tetrachloroethene	127-18-4	5(a)	0.140
Trichloroethene	79-01-6	5(a)	0.200
Vinyl Chloride	75-01-4	2(a)	0.180
Bis(2-ethylhexyl)phthalate	117-81-7	6(b)	1.34
TPH(>C7-C8 Aromatics)	n/a	80(d)	900
TPH(C6 Aliphatics)	n/a	200(d)	900
TPH(C6-C35)	n/a	800(d)	900

¹ Chemical Abstracts Service Registry Number.

^{*} Detection limit based on the lowest achievable practical quantitation limit available from the Permittee's contract laboratory.

- (a) Denotes limits derived from National Primary Drinking Water Regulations (EPA 816-F-09-0004, May 2009).
- (b) Denotes limits derived from Missouri Water Quality Standards (10 CSR 20-7.031, dated March 31, 2018) for protecting groundwater.
- (c) Denotes limits derived from risk-based concentration values for tap water as contained in EPA Regional Screening Level Tables, dated May 2019 (TR=1E-6, HQ=1.0).
- (d) Denotes limits derived from the Missouri Risk-Based Corrective Action Table B-1 Lowest Default Target Levels for all soil types and all pathways, dated April 2006, with updates published in June 2006 and June 2008.

B. Point of Compliance

The point of compliance is throughout the groundwater contaminant plume, and is represented on the surface by the various groundwater monitoring wells located throughout the plume, due to the current inability to distinguish releases from SWMUs and AOCs subject to 40 C.F.R. § 264.101 that are

known to have contributed to groundwater contamination at the facility. Such points of compliance and the modified groundwater monitoring and corrective action requirements are established pursuant to 40 C.F.R. § 264.90(f).

The Permittee's groundwater corrective action program shall continue until the Permittee demonstrates that the GPS limits contained in Table 4 have not been exceeded, and are not likely to be exceeded, throughout the point of compliance and the on-property groundwater plume(s) are stable or declining for a period of three consecutive years. This demonstration shall include an assessment of the potential for significant "contaminant rebound" beyond the three consecutive year time period, due to matrix or secondary porosity feature back diffusion or other relevant subsurface contaminant release mechanisms that could result in future plume expansion or exceedance of the GPS.

C. General Groundwater Monitoring Requirements [40 C.F.R. § 264.101]

The Permittee shall comply with 40 C.F.R. § 264.101 and the following additional requirements.

1. Within 60 calendar days after the effective date of this Permit, the Permittee shall submit to the Department for review and approval, a revised SAP, to reflect any revised and additional requirements contained in this Permit and any new conditions at the facility. All SAP procedures and techniques used in groundwater sampling, sampling frequency, analysis, and measurement of groundwater-related parameters shall be designed to meet the requirements of 40 C.F.R. Part 264 Subpart F and this Permit. The Permittee's sampling, analysis, and measurement protocols shall ensure the representative nature of all analysis and measurement results. The Department shall review and approve the revised SAP, according to the procedures described in General Permit Condition IV.
2. The Permittee shall retain a copy of the approved groundwater SAP with the local facility representative and/or at the facility and comply with the approved sampling and analysis procedures. The groundwater SAP shall describe sample collection, preservation, and shipment methodology; chain-of-custody procedures; and analytical methodology for field samples, trip blanks, and other quality control samples.

3. The Permittee's groundwater monitoring systems shall be designed, installed, operated, and maintained in a manner that ensures:
 - a. Detection and/or delineation of the horizontal and vertical extent of groundwater contamination, including beyond the facility property boundary, for impacts deemed to be emanating from facility SWMUs/AOCs;
 - b. Determination of representative concentrations of hazardous constituents and contaminant plume indicator parameters in the groundwater, and
 - c. Determination of the effectiveness of any groundwater corrective action activities in terms of contaminant removal, destruction, and/or containment (plume stability).

4. The number, location, and depth of the Permittee's monitoring wells shall be sufficient to define the horizontal and vertical extent of groundwater contamination beneath the Permittee's property and beyond the facility property boundaries. If, at any time during the compliance period, including any necessary extensions, the Permittee or the Department determines the existing monitoring system fails to define the horizontal and vertical extent of groundwater contamination, the Permittee shall submit, within 30 calendar days after such determination by the Permittee or written notification by the Department, a proposal for installing additional monitoring wells to define such extent.

At such time as the Department determines the Permittee has adequately redefined the horizontal and/or vertical extent of groundwater contamination, the wells defining such extent shall be incorporated into the groundwater monitoring system and be designated for continued monitoring in the Permittee's SAP. The Department shall notify the Permittee, in writing, regarding this determination. Within 30 calendar days after receiving this notification, the Permittee shall submit appropriate SAP revisions to the Department. The Department shall review and approve the SAP revisions, according to the procedures described in General Permit Condition IV.

5. Any new groundwater monitoring well(s) installed by the Permittee to meet the requirements of this Permit shall be designed and constructed according to applicable portions of the Monitoring Well Construction Code of the Missouri Well Construction Rules (10 CSR 23-1 through 10 CSR 23-4), and/or Department-approved well-specific plans and specifications.

The Permittee shall submit to the Department's Missouri Geological Survey (MGS) and Waste Management Program (WMP), a copy of the well certification report form and resulting certification acceptance required by Section 256.614.1.(1), RSMo, for any new monitoring well(s) installed pursuant to this Permit. This information shall be reported as part of the Annual Groundwater Corrective Action Report, described in Corrective Action Condition XVI.

6. Plugging and abandoning any groundwater monitoring well(s) operated by the Permittee pursuant to the requirements of this Permit shall meet the requirements of Section 256.614, RSMo, and 10 CSR 23-4.080.
 - a. The Permittee shall submit to MGS and WMP, a copy of the well registration report form and resulting registration acceptance required by 10 CSR 23-4.080, for any monitoring wells abandoned and plugged pursuant to this Permit. This information shall be reported as part of the Annual Groundwater Corrective Action Report, described in Corrective Action Condition XVI.
 - b. At such time as MGS accepts the Permittee's well registration, the plugged wells shall be removed from the Permittee's SAP. Within 30 calendar days after MGS' registration acceptance, the Permittee shall submit appropriate SAP revisions to the Department. The Department shall review and approve the SAP revisions, according to the procedures described in General Permit Condition IV.
7. According to 40 C.F.R. § 270.42, a Class 2 Permit Modification is required for any change in the number, location, depth, or design of upgradient or downgradient wells of the facility groundwater monitoring system. Replacing any well without changing the location,

depth, or design of that well shall require a Class 1 Permit Modification without Prior Director Approval, according to 40 C.F.R. § 270.42. The Permittee may elect to submit an annual permit modification request to address these changes collectively in lieu of a modification for each individual change.

Installing additional investigation wells does not require a Class 2 Permit Modification. These wells may be installed upon the Department's approval of associated work plans. The Department shall review and approve the work plans, according to the procedures described in General Permit Condition IV.

8. The Permittee shall contact the Department at least seven calendar days before conducting any fieldwork associated with constructing or modifying the groundwater monitoring system required by this Permit. The Department shall then have the option of observing any part of this fieldwork. This notification requirement applies to major work, such as new wells, retrofitting existing wells, or abandoning wells. It does not apply to minor repairs, minor maintenance, or other minor changes.
9. A monitoring well inspection and maintenance program shall be implemented for the duration of groundwater monitoring conducted pursuant to this Permit. This program shall be designed to ensure the ongoing structural integrity of all monitoring well installations. The Permittee's revised SAP shall specify the details of this program relative to the following requirements.
 - a. Surface well integrity inspections shall be performed at the time of each sampling event and shall be documented on a well inspection log sheet. Surface integrity evaluations for each monitoring well shall include a visual inspection of the outer protective casing, inner casing riser, surface well seal, well cap, and locking mechanism, to document any damage or deterioration. The ground surface in the immediate vicinity of each monitoring well and the annular space between the outer protective casing and casing riser shall be inspected for visible anomalies (e.g., water collection or ponding, ground subsidence, etc.).

- b. Subsurface well integrity inspections shall be performed during each monitoring event on all wells, according to the provisions contained in the Permittee's approved SAP, and shall be documented on a well inspection log sheet. Subsurface well integrity inspections may consist of a combination of one or more elements, including total well depth measurements, groundwater turbidity measurements, in-situ hydraulic conductivity tests, casing caliper logs, down-hole television camera surveys, and/or other methods capable of verifying the subsurface integrity of the well casing and screen.
- c. Wellbore siltation evaluations shall be conducted annually on all monitoring wells. The Permittee's approved SAP shall specify the frequency and performance standards for this evaluation to assess down-well siltation and well screen occlusion in all monitoring wells. This evaluation shall be designed to ensure the representative nature of the Permittee's groundwater sample analysis and field measurement results through minimizing sampling and measurement interferences (e.g., turbidity, excessive well screen occlusion, etc.).

The Permittee's approved SAP shall specify a well redevelopment trigger criterion based on a percentage of well screen occlusion and the potential of such occlusion to compromise the representative nature of the Permittee's groundwater sample analysis and field measurement results. Wells demonstrating well screen occlusion equal to or in excess of the selected criterion (e.g., 10 percent occlusion) shall be redeveloped before the next regularly scheduled sampling event.

- d. The Permittee shall perform well-specific surface and subsurface integrity inspections within 14 calendar days following any naturally occurring event (contact of wells by floodwaters, tornado, etc.) or man-made event (vehicular contact, vandalism, etc.) that has the potential to compromise the structural integrity of the well.
- e. Monitoring well repairs shall be completed within 30 calendar days after identifying any surface or subsurface well integrity

problem(s). If adverse weather or site conditions preclude the Permittee from gaining access to and/or repairing flood-impacted monitoring wells within 30 calendar days, the Permittee shall take appropriate action as soon as possible. A written justification for any delay, completed well inspection log sheets, a narrative description of any well repairs, and before and after repair photographic documentation (in the case of visible surface well repairs) shall be provided to the Department as part of the Annual Groundwater Corrective Action Report, as described in Corrective Action Condition XVI.

D. Corrective Action Program [40 C.F.R. § 264.101]

All SWMUs and AOCs are subject to the corrective action program requirements of 40 C.F.R. § 264.101 and this Permit, until such time as these regulatory and permit requirements have been satisfied.

1. The Permittee's corrective action program shall consist of groundwater monitoring, according to Corrective Action Conditions XIV. Any additional investigation, evaluation, or implementation of remedial alternatives necessary to address facility-wide groundwater contamination shall be according to Corrective Action Conditions IV. through IX. The corrective action program shall also address any groundwater contamination that has migrated beyond the facility property boundaries, excluding contamination determined to be migrating onto the facility property from upgradient sources. The corrective action program is based on:
 - a. The inability to differentiate groundwater contamination related to releases from the former underground storage tanks or transmission shop site versus that potentially related to nearby SWMUs and AOCs, which are subject to corrective action according to 40 C.F.R. § 264.101.
 - b. The need for additional site characterization to adequately support decisions regarding evaluating or implementing groundwater remedial alternatives.

- c. The exceedance, or potential exceedance, of the GPS contained in Table 4 at the property boundary (POC) or evidence of groundwater plume expansion may act as a “trigger” for additional investigation, evaluation, or implementation of additional groundwater remedial action or ISMs.
 - d. The desirability of implementing a holistic, facility-wide approach to groundwater investigation, monitoring, and remediation given the foregoing circumstances.
 2. The Permittee shall perform groundwater sampling and analysis and field measurement of groundwater-related parameters to monitor releases from the SWMUs and AOCs, according to the schedule presented in Table 5.
 - a. Sampling and analysis according to this schedule shall begin during the next regularly scheduled sampling event, following approval of the revised SAP required by Corrective Action Condition XIV.C.1. Given the potential lag time between the effective date of this Permit and approval of the revised SAP, the Permittee shall continue sampling and analysis according to the latest version of the approved SAP, until such time as the revised SAP is approved.
 - b. Sampling and analysis of groundwater from any newly installed wells required by 40 C.F.R. Part 264 Subpart F or this Permit shall be performed no later than the next regularly scheduled sampling event following their installation and according to the latest version of the approved SAP.
 - c. Wells monitored to ensure adequate delineation of the horizontal and vertical extent of groundwater contamination (hereafter referred to as perimeter wells) shall be analyzed annually, according to Table 5.
 - d. Specific perimeter wells to be monitored shall be specified in the Permittee’s approved SAP required by Corrective Action Condition XIV.C.1.

- e. Installing additional perimeter wells during the compliance period, including any extensions, may be necessary to meet the requirements of 40 C.F.R. Part 264 Subpart F and this Permit. If any such wells are installed, they may be subject to the monitoring requirements contained in Table 5. Adding new perimeter wells is subject to the permit modification procedures outlined in Corrective Action Condition XIV.C.7.
 - f. The Department shall approve, in writing, any future changes to the list of perimeter wells established in the Permittee's SAP. Within 30 calendar days after receiving the Department's approval, the Permittee shall submit additional SAP revisions to incorporate the approved changes.
 3. Wells monitored to assess the effectiveness of the Permittee's corrective action program (hereafter referred to as effectiveness wells) shall be sampled and the samples analyzed annually, according to Table 5.
 - a. Specific effectiveness wells to be monitored shall be specified in the Permittee's SAP required by Special Permit Condition XIV.C.1.
 - b. Installing additional effectiveness wells during the term of this Permit period, including any permit continuations, may be necessary to meet the requirements of 40 C.F.R. Part 264 Subpart F and this Permit. If any such wells are installed, they may be subject to the monitoring requirements contained in Table 5. Installing effectiveness wells does not require a permit modification, but does require prior Department approval.
 - c. The Department shall approve, in writing, any future changes to the list of effectiveness wells established in the Permittee's SAP. Within 30 calendar days after receiving the Department's approval, the Permittee shall submit additional SAP revisions to incorporate the approved changes.
 4. Only single sample analyses (as opposed to replicates) are required for the parameters listed in Table 5, with the exception of duplicate

samples taken for Quality Assurance (QA)/Quality Control (QC) purposes.

5. Field parameter values measured and reported by the Permittee shall be representative of stabilized well conditions.
 - a. Down-well measurement of non-aqueous phase liquid thickness, static water level, and total well depth shall be taken before well purging.
 - b. Specific conductance, pH, and temperature measurements reported to the Department shall be those taken upon stabilizing these parameters during well purging. Any additional field parameter measurements, such as those taken to verify the adequacy of well purging, shall be recorded in the field logbook.

Table 5 - Groundwater Monitoring, Sampling, Analysis, and Parameter Measurement Schedule

Parameters	Type*	Maximum Detection Limit (µg/l)	Frequency
Volatiles (1)	HC	Per Table 4	Annually
pH	FM/IN	Not Applicable	Annually
Specific Conductance	FM/IN	Not Applicable	Annually
Static Groundwater Elevation (2)	FM	Not Applicable	Annually
Temperature	FM	Not Applicable	Annually
Total Well Depth	FM	Not Applicable	Annually

* FM = Field Measurement, HC = Hazardous Constituent, IN = Indicator.

(1) EPA SW-846 Method 8260B or equivalent.

(2) Potentiometric measurements shall be obtained at the time of each regularly scheduled sampling event from each sampled well. Elevation shall be to the nearest 0.01 foot.

XV. Annual Progress Reports

- A. The Permittee shall prepare and submit Annual Progress Reports to the Department, summarizing all permitted corrective action activities undertaken during the previous calendar year (i.e., January through December). Annual Progress Reports are due by March 1 of each calendar year for the previous calendar year. The Annual Progress Reports shall continue to be submitted

until the Permittee's corrective action activities (including any long-term operation, maintenance, and monitoring activities) are complete.

- B. The Annual Progress Reports and Annual Groundwater Monitoring Reports, required by Corrective Action Condition XVI., may be combined and submitted as a single report. The Annual Progress Reports shall include the following information for the time period being reported:
 - 1. A description of the work completed;
 - 2. Summaries of all findings, including summaries of laboratory data;
 - 3. Summaries of all problems or potential problems encountered during the reporting period and actions taken to rectify problems;
 - 4. Projected work for the next reporting period; and
 - 5. Any instances of non-compliance with the corrective action requirements of this Permit not otherwise required to be reported elsewhere in this Permit.
- C. If the Department determines additional corrective action is required under Corrective Action Conditions II. through IX., the frequency of progress report submittals may increase. If an increase in reporting frequency is necessary, the Department shall provide written notification of the new reporting frequency to the Permittee.
- D. As part of any additional corrective action activities undertaken pursuant to this Permit, detailed technical information required to be submitted as part of ISMs, RFI, or CMS work plans and reports need not be reproduced as part of the Permittee's Annual Progress Reports.
- E. Copies of other reports (e.g., inspection reports), information, or data shall be made available to the Department and EPA upon request.

XVI. Annual Groundwater Corrective Action Reports

The Permittee shall prepare and submit Annual Groundwater Corrective Action Reports to the Department, providing a comprehensive evaluation of the facility-wide groundwater monitoring program and all uninterpreted analytical data from the

Permittee's annual groundwater sampling event for the previous calendar year (i.e., January through December). The Annual Groundwater Corrective Action Reports are due by March 1 of each calendar year for the previous calendar year. Each Annual Groundwater Corrective Action Report shall include the following information for the time period being reported:

- A. All original, uninterpreted laboratory analytical data package reports from the Permittee's annual groundwater sampling events, groundwater analysis results, field parameter measurement results, copies of field sampling and well inspection log sheets, well repair documentation, QA/QC data, statistical analysis of groundwater data, field investigation results, volume of groundwater extracted, and other relevant groundwater-related information, as appropriate.
- B. A discussion of any exceedances of the GPS and effluent limits of the Permittee's Missouri State Operating Permit.
- C. A narrative discussion of the nature and evolution of the Permittee's groundwater monitoring program, as well as conclusions concerning the overall adequacy of the program as related to its intended purpose, including any ISMs/remedial action plans. Any conclusions concerning inadequacies in the Permittee's groundwater monitoring program shall be accompanied by a discussion of proposed remedies. Specific details concerning any proposed remedies shall be further developed outside the scope of these reports or as otherwise specified in this Permit.
- D. Comprehensively address all technical requirements of 40 C.F.R. Part 264 Subpart F and this Permit. The Permittee shall summarize relevant groundwater monitoring information and present this information in the form of narrative discussions, groundwater flow calculations, and/or diagrammatic illustrations (e.g., tabular groundwater and statistical data summaries, hydrogeologic and potentiometric contour maps/cross-sections, chemical parameter trend graphs, calculated rate(s) of contaminant migration, contaminant isoconcentration maps/cross-sections, fence/isometric diagrams, groundwater flow nets, etc.), as appropriate.
- E. Evaluate the effectiveness of the groundwater corrective action program, including, but not limited to, the following:

1. The rate and direction of groundwater movement in underlying aquifers and potential effects on any corrective action measures being designed or implemented at the facility for removal, containment, or control of the groundwater contaminant plume(s);
 2. The horizontal and vertical extent and concentrations of hazardous constituents (Table 4) in groundwater throughout the contaminant plume(s) as evaluated from the data obtained through the Permittee's groundwater monitoring program;
 3. Any surface and/or subsurface well integrity problems and their potential or actual influence on the groundwater data or effectiveness of the groundwater corrective action program;
 4. An annual plume stability analysis, which shall demonstrate whether the plume is expanding, shrinking, or stable relative to the past 10 years. The analysis shall demonstrate increasing, decreasing, or stable contaminant trends for the past 10 years;
 5. Contaminant trend analyses from year to year using analytical results of the groundwater samples to help evaluate the overall progress/trends of the corrective action program and to provide the basis for future decisions regarding the need for additional corrective action/ISMs or optimizing existing measures; and
 6. The conclusions and summary, including statistical evaluation, of analytical results from groundwater monitoring conducted during the report period.
- F. Contain detailed boring logs for new exploratory borings and/or detailed "as-built" monitoring well diagrams for any new monitoring wells installed during the corresponding reporting period and the monitoring well-related information specified in Corrective Action Conditions XIV.D.3.

XVII. Planned and Contingent Activities

- A. The Permittee shall comply with the schedule for planned corrective action activities as specified in this Permit and summarized in Table 7.

- B. The Permittee shall comply, as necessary, with the schedule for contingent corrective action activities as specified in this Permit and summarized in Table 8.

XVIII. Data

All uninterpreted data, such as laboratory reports, drilling logs, bench-scale or pilot-scale data, and other supporting information gathered or generated during activities undertaken pursuant to this Permit shall be maintained by the Permittee during the term of this Permit, including the term of any continued or reissued permits.

FINANCIAL ASSURANCE CONDITIONS

The Permittee shall comply with all applicable financial assurance requirements contained in the Missouri Hazardous Waste Management Law (and all standards, rules, and regulations adopted under this act), Section 260.350, et seq., RSMo; 40 C.F.R. Part 264 Subparts H, 40 C.F.R. §§ 264.101, 270.30, 270.40, 270.42, and 270.51; and all provisions of this Permit for closure and corrective action activities identified pursuant to the provisions of this Permit.

I. Cost Estimates

A. Closure and Corrective Action Cost Estimates

- 1. If, in the future, the Permittee submits a notice of intent to close a hazardous waste management unit, or if a CMS or equivalent becomes necessary as part of the corrective action activities required by this Permit, within 60 calendar days after the effective date of this notification of closure or final remedy approval, the Permittee shall submit an updated closure cost estimate, as specified in Schedule of Compliance Item I.G.
 - a. A third party is a party who:
 - (1) Is neither a parent nor a subsidiary of the Permittee and
 - (2) Does not share a common parent or subsidiary with the Permittee.

- b. The cost estimates shall be certified by a professional engineer or geologist registered in Missouri and developed using appropriate cost estimating software.
- c. The closure and corrective action cost estimates shall account for the total cost of all work activities and related costs expected to continue until such time as final cleanup objectives are met and confirmed. This includes, but is not limited to, any long-term costs, such as:
 - (1) Final remedy operation, maintenance, and monitoring;
 - (2) Utilities, including electricity, water, and sewer;
 - (3) Decommissioning remediation equipment and plugging/abandoning monitoring wells;
 - (4) Real estate taxes on the property; and
 - (5) Departmental oversight cost reimbursement.
- d. The corrective action cost estimates shall be based on a “rolling” 30 years’ duration unless the Permittee makes a successful demonstration for a shorter time period. The Permittee may, at any time, submit to the Department for review and approval, a demonstration to adjust the corrective action cost estimate based on the estimated time remaining to achieve applicable remediation objectives/standards.
- e. The corrective action cost estimates shall include a contingency cost allowance of 10 percent of the total cost of all corrective action activities.
- f. The cost estimates shall not include any salvage value that may be realized from the sale of wastes, facility structures or equipment, land, or other assets associated with the facility.
- g. Discounting is not allowed for closure or post-closure care cost estimates. The regulations are silent on discounting for corrective action cost estimates, if and when needed.

Discounting would allow a facility to provide less than the amount of financial assurance required, based on the future value of the investment. The assumption is made that by the end of any corrective action period, the full amount of financial assurance will be available based on the future value of money.

2. The Permittee shall submit each closure and corrective action cost estimate to the Department for review and evaluation. If the cost estimate requires modification, the Department shall notify the Permittee, in writing, of the estimate's deficiencies and specify a due date for submitting a revised cost estimate for further evaluation and final written response.
3. The Permittee shall maintain, in the operating record, the most recent closure and corrective action cost estimate that has received a final written response from the Department.

B. Revisions to Closure and Corrective Action Cost Estimates

1. Annual Adjustment for Inflation

The Permittee shall annually adjust the closure and corrective action cost estimates, as applicable, for inflation until all activities required by this Permit are complete. The inflation adjustment shall be determined by using the procedures described in 40 C.F.R. § 264.142(b), except that the inflation factor should be derived from the most recent annual Implicit Price Deflator for the Gross Domestic Product, instead of the Gross National Product. The cost estimate is due within 60 calendar days before the anniversary date of the financial assurance instrument used to comply with this section. If the Permittee uses a financial test or corporate guarantee to demonstrate financial assurance, the cost estimate is due within 30 calendar days after the close of the guarantor's fiscal year.

2. The Permittee shall also adjust the closure and corrective action cost estimate if:
 - a. The Permittee or the Department determines any additional closure or corrective action activities are required; or

- b. Any other conditions increase or decrease the estimated cost of the closure or corrective action activities to be performed under this Permit.
3. If the Department determines a new cost estimate is required, the Department shall notify the Permittee, in writing, of this requirement. The revised cost estimate is due within 60 calendar days after the Permittee's determination that a revised cost estimate is necessary or the Department's written notification that a new cost estimate is required.
4. The Permittee shall submit each revised closure and corrective action cost estimate to the Department for review and evaluation. If the revised cost estimate requires further modification, the Department shall notify the Permittee, in writing, of the estimate's deficiencies and specify a due date for submitting a new revised cost estimate for further evaluation and final written response.

II. Financial Assurance

In order to provide for the full and final completion of the closure and corrective action activities required by this Permit, the Permittee shall establish and maintain financial assurance, for the benefit of the Department, in the amount at least equal to the most recent closure and corrective action cost estimate that received a final written response from the Department. All financial assurance instruments provided pursuant to this Permit shall be satisfactory in form and substance as determined by the Department.

A. Certified Mail

The Permittee shall submit all required financial assurance instruments and related documents to the Department by certified mail.

B. Timeframes for Financial Assurance Instruments (other than Financial Test or Corporate Guarantee)

1. Within 30 calendar days after receiving the Department's final written response regarding the Permittee's cost estimate(s) pursuant to this Permit, the Permittee shall submit to the Department for review and evaluation, the draft financial assurance instrument(s) and related

documents. This applies to all financial assurance instruments except the financial test or corporate guarantee. See Financial Assurance Condition II.C.

2. Within 10 calendar days after receiving the Department's final written response regarding the draft financial assurance instrument(s), the Permittee shall execute or otherwise finalize all instruments or other documents required in order to make the selected financial assurance legally binding. The final financial assurance instrument(s) shall be in a form identical to the draft financial assurance documents reviewed and responded to by the Department, including any changes resulting from that review.
3. Within 30 calendar days after receiving the Department's final written response regarding the draft financial assurance instrument(s), the Permittee shall ensure the issuing institution submits to the Department, all original executed and/or otherwise finalized instruments or other documents required in order to make the selected financial assurance legally binding. The instruments or other documents shall be in a form identical to the financial assurance documents reviewed and responded to by the Department. Facsimiles or photocopies are not acceptable.

C. Timeframes for Financial Tests and Corporate Guarantees

1. Within 30 calendar days after receiving the Department's final written response regarding the Permittee's cost estimate(s) pursuant to this Permit, the Permittee shall submit to the Department for review and evaluation, all documentation necessary to demonstrate the Permittee satisfies the financial test criteria. See Financial Assurance Condition II.E.5.
2. The Permittee's financial assurance shall become effective immediately upon the Permittee receiving the Department's final written response regarding either the Permittee's cost estimate(s) or the Permittee's demonstration that the Permittee satisfies the financial test criteria, whichever date is later.

D. Multiple Instruments

The Permittee may combine more than one mechanism generally described in Financial Assurance Condition II.E., to demonstrate financial assurance for the closure and corrective action activities required by this Permit. As specified in 40 C.F.R. § 264.143(g), these mechanisms are limited to trust funds, surety bonds guaranteeing payment into a trust fund, letters of credit, and insurance. Using the foregoing instruments in combination with the financial test or corporate guarantee is not allowed. The Department reserves the right to limit the Permittee's choices to one or more of the instruments, on a case-by-case basis, in order to ensure the full and final completion of the closure and corrective action activities required by this Permit.

E. Financial Assurance Instruments

The Permittee must choose from the mechanisms specified in 40 C.F.R. §§ 264.143 and 264.146. The wording of the financial assurance documents shall meet the requirements of 40 C.F.R. § 264.151, except that deviation in wording to incorporate coverage for corrective action activities is allowed. All financial assurance instruments provided pursuant to this Permit shall be satisfactory in form and substance as determined by the Department.

1. Trust Fund

- a. The trust fund shall be established for the benefit of the Department and administered by a trustee who has the authority to act as a trustee under federal or state law and whose trust operations are regulated and examined by a federal or state agency.
- b. The trust agreement shall state that the trustee shall make payments from the fund, as the Department directs in writing, to:
 - (1) Reimburse the Permittee for expenditures made by the Permittee for closure and corrective action activities performed according to this Permit; or

- (2) Pay any other person whom the Department determines has performed or will perform the closure and corrective action activities required by this Permit.
 - c. The trust agreement shall also state that the trustee shall not refund to the grantor any amounts from the fund until the Department notifies the trustee, in writing, that the closure and corrective action activities performed according to this Permit have been completed to the Department's satisfaction.
2. Surety Bond
 - a. A surety bond shall unconditionally guarantee either:
 - (1) Payment, at the direction of the Department, into a standby trust fund that meets the requirements of Financial Assurance Condition II.E.1; or
 - (2) Performance of the closure and corrective action activities required by this Permit. The Surety Company issuing the bond shall, at a minimum, be among those listed as acceptable sureties on Federal Bonds, as described in Circular 570 of the U.S. Department of the Treasury.
 - b. If the Permittee chooses to establish financial assurance by using a surety bond, the Permittee shall, at the same time, establish and maintain a standby trust fund. The standby trust fund shall meet the requirements of Financial Assurance Condition II.E.1. Funds from the surety bond shall be deposited into the standby trust fund if the Department directs the financial assurance provider to do so, pursuant to Financial Assurance Condition II.I.
3. Irrevocable Letter of Credit
 - a. The letter of credit shall be issued by a financial institution that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a federal or state agency.

- (1) The Permittee is named as a debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or
- (2) The Department notifies the insurer of the Permittee's failure to perform, under Financial Assurance Condition II.I.

5. Financial Test or Corporate Guarantee

- a. A Permittee may provide financial assurance through a demonstration that the Permittee satisfies the financial test requirements described in 40 C.F.R. § 264.143(f).
- b. A Permittee's direct or indirect parent company may provide a corporate guarantee, executed in favor of the Department. Such guarantee shall state the company providing the guarantee shall perform the closure and corrective action activities required by this Permit, or that the company shall establish a trust fund as allowed in Financial Assurance Condition II.E.1. Any company providing such a guarantee shall demonstrate, to the satisfaction of the Department, that it satisfies the financial test requirements described in 40 C.F.R. § 264.143(f).
- c. The Permittee shall also comply with the applicable requirements of 40 C.F.R. §§ 264.151(f) and (h)(1), as related to these methods, unless otherwise provided in this Permit. This includes, but is not limited to:
 - (1) Initial submission of required financial reports and statements from the guarantors' chief financial officer and independent certified public accountant;
 - (2) Annual re-submission of such reports and statements within 90 calendar days after the close of each of the guarantor's fiscal year; and
 - (3) Notifying the Department, by certified mail, within 90 calendar days after the close of any of the guarantor's

fiscal years in which any such guarantor no longer satisfies the financial test requirements.

- d. The Department may, at any time, request additional information from the Permittee or corporate guarantor, including financial statements and accountant's reports. Any Department request for this information shall be in writing and shall specify a due date for submitting the information. The Permittee shall promptly provide the requested information to the Department.
- e. References in 40 C.F.R. § 264.143(f) to “the sum of current closure and post-closure costs” and “the current plugging and abandonment cost estimates” and reference in 40 C.F.R. § 264.101(c) to “Assurances of financial responsibility for such corrective action shall be provided” shall mean “the sum of all environmental remediation obligations” guaranteed by such company or for which such company is otherwise financially obligated, in addition to the cost of the closure and corrective action activities required by this Permit. This includes obligations under the Comprehensive Environmental Response, Compensation, and Liability Act; RCRA; Toxic Substances Control Act; Underground Injection Control Program; and any other state or tribal environmental obligation.

F. Automatic Renewal

All financial assurance instruments shall automatically renew each calendar year, at the time of their expiration, unless the financial assurance provider notifies both the Permittee and Department, by certified mail, of a decision to cancel, terminate, or not renew a financial assurance instrument. The Permittee and Department shall receive such notification at least 120 calendar days before expiration, cancellation, or termination of the instrument. Under the terms of the financial assurance instrument, the 120 calendar days shall begin on the date both the Permittee and Department receive the notice.

- 1. Within 90 calendar days after receiving such notice by both the Permittee and Department, the Permittee shall provide alternate financial assurance and obtain a final written response from the Department regarding such alternate financial assurance.

2. If the Permittee fails to provide alternate financial assurance within 90 calendar days, the Department shall notify the financial assurance provider, in writing, before the instrument expires. The notice to the financial assurance provider shall instruct the financial assurance provider to immediately deposit any and all funds obligated under the financial assurance instrument into the standby trust fund, or a newly created trust fund acceptable to the Department.

G. Modifying Instruments

1. Inadequate Financial Assurance Instrument

- a. If, at any time, the Department determines a financial assurance instrument(s) provided pursuant to this Permit is inadequate or no longer satisfies the requirements, the Department shall notify the Permittee, in writing. This applies whether there is an adjustment in the estimated cost of the closure or corrective action activities required by this Permit, as independently determined by the Department, or for any other reason.

- (1) Within 30 calendar days after receiving such notice, the Permittee shall submit to the Department for review and evaluation, a draft revised financial assurance instrument(s) and related documents. The draft revised financial assurance instrument(s) and related documents shall address the inadequacies outlined in the Department's notice.

- (2) Within 10 calendar days after receiving the Department's final written response regarding the draft revised financial assurance instrument(s), the Permittee shall execute and/or otherwise finalize all instruments or other documents required in order to make the selected financial assurance legally binding. The final financial assurance instrument(s) shall be in a form identical to the draft revised financial assurance documents reviewed and responded to by the Department, including any changes resulting from that review.

(3) Within 30 calendar days after receiving the Department's final written response regarding the draft revised financial assurance instrument(s), the Permittee shall ensure the issuing institution submits to the Department, all original executed and/or otherwise finalized instruments or other documents required in order to make the selected financial assurance legally binding. The instruments or other documents shall be in a form identical to the revised financial assurance documents reviewed and responded to by the Department. Facsimiles or photocopies are not acceptable.

b. If, at any time, the Permittee determines a financial assurance instrument provided pursuant to this Permit is inadequate or no longer satisfies the requirements described or incorporated herein, the Permittee shall notify the Department, in writing, within 10 calendar days after this determination. This applies whether due to an adjustment in the estimated cost of the closure or corrective action activities required by this Permit or for any other reason.

2. Reduction in Amount of Financial Assurance

a. If the Permittee believes the estimated cost to complete the closure and corrective action activities required by this Permit has diminished below the amount covered by the existing financial assurance provided under this Permit, the Permittee may submit a written proposal to the Department to reduce the amount of the financial assurance provided under this Permit.

(1) The amount of financial assurance proposed shall be at least equal to the estimated cost of the remaining closure and corrective action activities required by this Permit.

(2) The written proposal shall specify, at a minimum, the cost of the remaining closure and corrective action activities to be performed and the basis upon which

such cost was calculated (e.g., years remaining until established cleanup standards are expected to be met).

- b. The Department shall notify the Permittee, in writing, regarding its evaluation of the revised financial assurance amount. The Permittee may reduce the financial assurance amount after receiving the Department's written response to the proposed revisions, but only according to, and to the extent permitted by, the Department's response. No change to the form or terms of any financial assurance provided under this Section is authorized, other than a reduction in amount.
3. Change of Form of Financial Assurance
 - a. If the Permittee wishes to change the form or terms of financial assurance, the Permittee may submit a written proposal to the Department for a revised or alternative form of financial assurance. The written proposal shall specify, at a minimum:
 - (1) The cost of the remaining closure and corrective action activities to be performed and the basis upon which such cost was calculated; and
 - (2) The proposed revised form of financial assurance, including all proposed instruments or other documents required in order to make the proposed financial assurance legally binding. The proposed revised or alternative form of financial assurance shall satisfy all requirements described or incorporated by reference in this Permit.
 - b. The Department shall notify the Permittee, in writing, of its decision regarding the revised or alternative form of financial assurance. Acceptance of the written proposal shall be made at the Department's sole discretion.
 - c. Within 30 calendar days after receiving the Department's final written response regarding the proposed revised or alternative financial assurance, the Permittee shall ensure the issuing institution submits to the Department, all original executed

and/or otherwise finalized instruments or other documents required in order to make the selected financial assurance legally binding. The instruments or other documents shall be in a form identical to the financial assurance documents reviewed and responded to by the Department. Facsimiles or photocopies are not acceptable.

- d. The Department shall release, cancel, or terminate the prior existing financial assurance instruments only after the Permittee has submitted to the Department, all executed and/or otherwise finalized new financial assurance instruments or other required documents.

H. Obligation to Complete Closure and Corrective Action Activities

The Permittee's inability or failure to establish or maintain financial assurance for completing the closure or corrective action activities required by this Permit in no way excuses performing any other requirements of this Permit, including, without limitation, the Permittee's obligation to complete all necessary closure and corrective action activities in strict accordance with the terms of this Permit.

I. Performance Failure

1. In the event, the Department determines the Permittee:
 - a. Has ceased implementing any of the closure or corrective action activities required by this Permit; or
 - b. Is significantly or repeatedly deficient or late in performing the closure or corrective action activities required by this Permit; or
 - c. Is implementing the closure or corrective action activities required by this Permit in a manner that may cause an endangerment to human health or the environment;

the Department may issue, to both the Permittee and financial assurance provider, a written notice ("Performance Failure Notice") of the Permittee's failure to perform. The notice shall specify the grounds

upon which the notice was issued and provide the Permittee 10 calendar days to remedy the circumstances.

2. If the Permittee fails to remedy the performance failure to the Department's satisfaction before the 10 calendar days' end, the Department shall have immediate access to, and benefit of, the financial assurance provided. The Department may, at any time thereafter, direct the financial assurance provider to immediately:
 - a. Deposit any and all funds obligated under the financial assurance instrument into the standby trust fund, or a newly created trust fund acceptable to the Department; or
 - b. Arrange for performance of the closure or corrective action activities required by this Permit.
 3. The Department shall notify the Permittee, in writing, if the Department is unable, after reasonable efforts, to secure the payment of funds from the financial assurance provider for performing the closure or corrective action activities. Within 10 calendar days after receiving such notice, the Permittee shall provide cash to fund the standby trust fund, or a newly created trust fund acceptable to the Department.
 - a. The funds shall at least equal the cost of the remaining closure and corrective action activities required by this Permit.
 - b. The deposit shall be made in immediately available funds and without setoff, counterclaim, or condition of any kind.
- J. Release of Financial Assurance
1. After the Department and Permittee have mutually agreed that all closure and corrective action activities required by this Permit are complete, the Permittee may submit a written request to the Department to release the Permittee from the requirement to maintain financial assurance.

2. The Department shall notify both the Permittee and financial assurance provider(s), in writing, if and when the Permittee is released from all financial assurance obligations under this Permit.
3. The Permittee shall not release, cancel, or terminate any financial assurance provided pursuant to this Permit, except as provided in Financial Assurance Condition II.G.2.

III. Liability Requirements

If the Permittee has not already done so as of the effective date of this Permit, within 90 calendar days after the effective date of this Permit, the Permittee shall establish third party liability coverage according to 40 C.F.R. § 264.147.

FACILITY SUBMISSION SUMMARY

**Table 6 - Planned Submittal Requirements
Pursuant to this Permit and Schedule of Compliance**

Submittal Requirements	Due Date*	Permit Condition
Two paper copies and one searchable electronic copy of the consolidated permit application	Within 60 calendar days after effective date of this Permit.	Schedule of Compliance Item I.A.
Certification that Permittee has read and understands all permit conditions in this Permit	Within 60 calendar days after effective date of this Permit.	Schedule of Compliance Item I.B.
Check or money order for any outstanding engineering review costs	Within 60 calendar days after effective date of this Permit.	Schedule of Compliance Item I.C.
Check or money order for each year this Permit is to be in effect beyond the first year	Within 60 calendar days after effective date of this Permit.	Schedule of Compliance Item I.D.
Revised SAP	Within 60 calendar days after effective date of this Permit.	Schedule of Compliance Item I.E.
Updated closure and corrective action cost estimate inflation update	Annually, within 60 calendar days before the anniversary date of establishing the financial assurance instrument or within 30 calendar days after the end of the guarantor's fiscal year if a financial test or corporate guarantee is used.	Financial Assurance Condition I.B.1.
Permit Renewal Application	At least 24 months before expiration date of this Permit.	Standard Permit Condition II.

*Extensions may be requested and approved by the Department for cause without modifying this Permit.

**Table 7 - Planned Corrective Action Submittal Requirements
 Pursuant to the Corrective Action Conditions of this Permit**

Planned Submittal Requirements	Due Date	Corrective Action Condition
Annual Progress Reports	By March 1 of each calendar year (may be combined with March 1 Groundwater Monitoring Reports).	XV.A.
Annual Groundwater Corrective Action Reports	March 1 of each calendar year.	XVI.

**Table 8 - Contingent Corrective Action Submittal Requirements
 Pursuant to the Corrective Action Conditions of this Permit**

Contingent Submittal Requirements	Due Date	Corrective Action Condition
Written report of an emergency situation involving hazardous waste or hazardous constituents	Within 15 calendar days after the incident occurrence.	General Permit Condition II.
Written report of details resulting from a release from a tank system	Within 30 calendar days after detecting the release.	Special Permit Condition III.H.4.c.
Written notification of newly identified SWMU(s) and AOC(s)	No later than 15 calendar days after discovery.	II.A.
SWMU/AOC Assessment Work Plan	Within 30 calendar days after notice by the Department that a work plan is required.	II.B.
SWMU/AOC Assessment Report	According to the schedule in the approved SWMU/AOC Assessment Work Plan.	II.D.
Written notification of newly identified releases from previously identified SWMU(s) and AOC(s)	No later than 15 calendar days after discovery.	III.A.
Newly Identified Release Work Plan	Within 30 calendar days after notice by the Department that a work plan is required.	III.B.

Contingent Submittal Requirements	Due Date	Corrective Action Condition
Newly Identified Release Report	According to the schedule in the approved Newly Identified Release Work Plan.	III.D.
Notification of interim/stabilization measures	Within 24 hours after discovery of need for stabilization.	IV.B.1.
Notification of interim/stabilization measures not effective	Within 10 calendar days after determination.	IV.B.3.
RCRA Facility Investigation (RFI) Work Plan	Within 60 calendar days after notice by the Department that a work plan is required.	V.A.
RCRA Facility Investigation (RFI) Report	According to the schedule in the approved RFI Work Plan.	VI.A.
Corrective Measures Study (CMS) or Remedy Evaluation Work Plan	Within 45 calendar days after notice by the Department that a work plan is required.	VII.A.
Corrective Measures Study (CMS) or Remedy Evaluation Report	According to the schedule in the approved CMS Work Plan.	VIII.A.
Corrective Measures Implementation (CMI) Work Plan	According to the schedule in the permit modification to implement a final remedy.	X.A.
Certification of Final Remedy Construction	Within 60 calendar days after recording approved Environmental Covenant or final remedy construction.	XI.B.
Certification of Completion of Corrective Measures	Within 60 calendar days after receiving Department approval of documentation verifying completion.	XII.C
Soil or Other Media Disturbance Notification	At least 30 calendar days before any planned activities at any area subject to AULs.	XIII.A.1.

Contingent Submittal Requirements	Due Date	Corrective Action Condition
Transfer of Interest in Permitted Property Notification	At least 90 calendar days before transferring any interest in any portion of permitted property.	XIII.B.1.
Change in Use of Property Notification	At least 30 calendar days before any proposed change in use of property.	XIII.C.
Draft Environmental Covenant	Within 60 calendar days after notice by the Department that a draft is required.	XIII.E.1.
Execute Environmental Covenant	Within 30 calendar days after receiving Department approval of draft Environmental Covenant	XIII.E.4.
Recordation of Environmental Covenants	Within 15 calendar days after execution of Environmental Covenants	XIII.E.5.
Notarized statements certifying the executed Environmental Covenants were recorded.	Within 30 calendar days after recording executed Environmental Covenants	XIII.E.6.

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Figure 1 - Facility Location

Figure not available due to size.
Please see hard copy or separate electronic file online at
<https://dnr.mo.gov/env/hwp/permits/mod095486312/19830101-figure1.pdf>

Figure 2 - Facility Property Boundaries

Figure not available due to size.
Please see hard copy or separate electronic file online at
<https://dnr.mo.gov/env/hwp/permits/mod095486312/19920124-figure2.pdf>