STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI HAZARDOUS WASTE MANAGEMENT FACILITY
PART I PERMIT

PERMIT NUMBER: MOD000610766

PERMITTEE

Owner: Solvent Recovery, LLC
700 Mulberry Street
Kansas City, MO 64101

Operator: Solvent Recovery, LLC
716 Mulberry Street
Kansas City, MO 64101

FACILITY LOCATION

Solvent Recovery, LLC
716 Mulberry Street
Kansas City, MO 64101
Jackson County
North Latitude – 39°06'12"
West Longitude – 94°06'27"

FACILITY DESCRIPTION

Solvent Recovery, LLC, is a hazardous waste treatment and storage facility that accepts waste from various generators. Solvent Recovery mixes, stores, transports, handles hazardous waste, and brokers hazardous waste for off-site treatment or disposal. Wastes that are categorized as

viable fuel candidates are blended in tanks; the fuel blends are then shipped for use in cement kilns. Aside from blending operations, Solvent Recovery also uses miscellaneous units to extract paint and paint-related waste from collected containers and operates lab pack/depack operations for consolidation of off-site shipments of containerized wastes. For waste streams that are unable to be blended into fuel, Solvent Recovery acts as a broker and transfers these wastes to other facilities that are able to store or treat them. The facility location is shown in Figure 1. The facility property boundaries are shown in Figure 2.

PERMITTED ACTIVITIES

This Permit allows Solvent Recovery, LLC to store, in tanks and containers, and treat various "F, K, P, and U" listed hazardous wastes, as well as ignitable, reactive, corrosive, and other characteristic hazardous wastes specified in the Part A application.

This Permit requires continuing a 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 release(s) to the environment from previously or newly identified Solid Waste Management Units and Areas of Concern, as necessary and appropriate.

EFFECTIVE DATES OF PERMIT: May 29, 2020 to May 28, 2030

May 29, 2020
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 Solvent Recovery, LLC'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 through 260.433, Revised Statutes of Missouri (RSMo), et seq., 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 (40 C.F.R.). The state rules and regulations, promulgated under the Missouri Hazardous Waste Management Law, are published in Title 10, Division 25, of the Code of State Regulations (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 MOD000610766, to Solvent Recovery, LLC, as the facility owner and operator (hereafter referred to as the Permittee), for continued 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 the state previously adopted. 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 convenience. 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. The appropriate state reference is given and shall apply in instances where state regulations are more stringent.

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 the party provide a copy of the appeal request 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 treatment, storage, and "contingent" 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 May 28, 2030. 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 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 January 31, 2015.
- Additional technical information, dated September 3, 2019.
- Groundwater Monitoring Plan, Monitored Natural Attenuation, dated January 14, 2003.
- Soil Vapor Extraction – Interim Measures Work Plan, dated February 28, 2003.

- Class 1 Permit Modification Without Prior Director's Approval for updates to the Emergency Coordinator's List in the Permittee's Contingency Plan, acknowledged by the Department on October 7, 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 activities, 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 that 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.

"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. Investigation and/or remediation of 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.

"Extraction Well" means a well, designated by the Permittee and approved by the Department, that is used for removing groundwater, soil vapor, or combination thereof, from the subsurface for above-ground treatment. For the purposes of this Permit, "extraction well" is synonymous with the term "recovery well". The two terms are used interchangeably, but "extraction well" is the preferred term for this Permit.

"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.

“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.

“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 released.

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 for approval, a revised Part A permit application. The revised Part A shall include all permitted units at the facility and a diagram of the facility clearly outlining where each permitted unit is located.

C. Submit to the Department a certification by the Permittee that the Permittee has read this Permit in its entirety and understands all permit conditions contained in this Permit.

D. 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.

E. 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:

Remaining balance = $9,000.00 - (($1,000.00 ÷ 365 days) x 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.

II. Within 90 calendar days after the effective date of this Permit, the Permittee shall:

A. Submit to the Department for review and approval, an updated Interim Groundwater Monitoring Plan to reflect any additional requirements contained in this Permit, as required in Corrective Action Condition XIV.A.2.

B. Submit to the Department for review and approval, an updated Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP), as required in Corrective Action Condition XIV.B.1.

C. Schedule of Compliance Items II.A. and II.B. may be submitted to the Department under the same cover.

III. Within 90 calendar days of approval by the Department, the Permittee shall implement the Interim Groundwater Monitoring Plan and SAP/QAPP according to Corrective Action Condition XIV.A.3.

IV. The Permittee shall maintain financial assurance for closure until such time as the Department accepts the closure certification report for the facility, and notifies the Permittee, in writing, that the financial assurance mechanism for closure may be terminated.

V. 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 4 and 5.

SUBMITTAL OF REQUIRED INFORMATION

I. Unless otherwise requested by the Department, the Permittee shall submit one paper copy and one searchable electronic copy of all reports, documents, plans and 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

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, Sections 260.350 through 260.430, RSMo, et seq., 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.

I. Application for Permit Reissuance [40 C.F.R. § 270.32(b)(2)]

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 Department 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

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, X, BB, and CC; 40 C.F.R. Part 268; and 40 C.F.R. Part 270.

I. Notification of an Emergency Situation [Chapter 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 of 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.

II. Reporting Requirements [40 C.F.R. § 270.30(l)(9)]

A biennial report shall be submitted to the Department by March 1, during even numbered calendar year, covering facility activities as required by 40 C.F.R. § 264.75.

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, or universal 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 sampling and analysis of hazardous waste, residues, emissions, plant sampling, odor testing, or closure or corrective action activities (excluding the Annual Groundwater Corrective Action Report, unless proposed actions to address corrective action program inadequacies are contained therein), 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 include the Permittee's justification for the requested 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)]

A. The Permittee submitted information, as required in 40 C.F.R. §§ 270.14(b)(11)(iii) and 270.28, that identifies the facility as being located in the 100-year floodplain. As such, the Permittee shall design, construct, operate, and maintain the facility in such a manner so as to prevent washout of any hazardous waste by a 100-year flood, as required by 40 C.F.R. § 264.18(b).

B. According to 40 C.F.R. § 270.14(b)(11)(iv), facilities located in the 100-year floodplain shall provide one of the following:

1. Demonstration that the engineering design of the facility is adequate to withstand the forces of a 100-year flood event; or

2. Demonstration that hazardous waste can be removed in a safe and timely manner to a facility eligible to receive such waste according to hazardous waste laws and regulations.

The Permittee has chosen to comply with Special Permit Condition I.B.1. for the hazardous waste management units located within the 100-year floodplain. To fully satisfy this requirement, the Permittee shall maintain the facility design regarding footings and foundations for tank systems and container storage areas, as well as other aspects of the facility design, as required in 40 C.F.R. § 270.14(b)(11)(iv)(A) and (B), and described in the approved permit application.

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

Nine container storage areas currently are permitted and operating at this facility. These areas are located as shown on Figures 5 and 6, 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. All stored wastes in the permitted container storage areas 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)
Main Building 1st Floor Room A	8,250
Main Building 1st Floor Room B	20,130*
Main Building 2nd Floor Area A (Caustics/Inorganic and Organic Acids)	11,990
Main Building 2nd Floor Area B (Oxidizers)	3,685
Main Building 2nd Floor Area C (Inorganic Labpack/Depack)	6,875
Main Building 3rd Floor	18,865
Main Building 4th Floor	6,820
Drum Storage Warehouse	85,415
Roll-off Containers	64,632

1. Main Building Storage

The maximum quantity of wastes that may be stored at any time is 76,615 gallons in containers. The Permittee may store materials that contain free liquids throughout the area, as described in this Permit and the approved permit application. The maximum quantities by area are as follows:

a. Main Building Basement

No container storing hazardous waste is to be located in this area at any time.

b. 1st Floor

Room A: 150 drums or 8,250 gallons, whichever is less;

*Room B: This room consists of two storage areas (primary Room B storage (18,920 gallons), and the storage area associated with the Pail Crusher Unit (1,210 gallons), with a combined total storage capacity of 366 drums or 20,130 gallons, whichever is less.

c. 2nd Floor

Area A: 218 drums or 11,990 gallons, whichever is less;

Area B: 67 drums or 3,685 gallons, whichever is less;

Area C: 125 drums or 6,875 gallons, whichever is less.

d. 3rd Floor

343 drums or 18,865 gallons, whichever is less.

e. 4th Floor

124 drums or 6,820 gallons, whichever is less.

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 x 5) + (B x 16) + (C x 30) + (D x 55) + E = Total Stored Volume (gallons)

2. Drum Storage Warehouse Storage

The maximum quantity of wastes that may be stored at any time is 85,415 gallons. The Permittee may store materials that contain free liquids in this area, as described in this Permit and the approved permit application.

3. Roll-off Containers

The maximum quantity of wastes that may be stored at any time is 320 cubic yards, or 64,632 gallons, of material. The Permittee shall not store materials that contain free liquids in this area, as described in this Permit and the approved permit application.

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, on the aisle-side, as to the total amounts, codes, and names of hazardous waste on the pallet; 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;

        (2) If a container on the pallet leaks, the pallet is unloaded and the spill is remedied according to the approved permit application; and

        (3) The outermost containers are clearly labeled, on the aisle-side, as to the total amounts, codes, and name of hazardous waste on the pallet.

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 two vertically oriented 55-gallon sized drums.

    b. Containers stacked on pallets shall be stacked no higher than 8 feet or be stacked or placed closer than 3 feet from ceilings, roof members, or both.

    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 6.5 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 6.5 feet.

4. All containers shall be arranged so there is a minimum of three feet of aisle space maintained between rows of adjacent containers, allowing accessibility to each individual container for inspection. Double pallet rows can be used, as long as a minimum of one-half foot of spacing is maintained between the pallets within the row, allowing for inspection, and 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 storing hazardous wastes 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 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 the applicable, currently-effective USDOT requirements in 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's "Standard System for the Identification of the Hazards of Materials for Emergency Response" (NFPA 704, as revised).

G. Inspections [40 C.F.R. § 264.174]

1. At least weekly, and according to the schedules 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. The 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 of identifying the cracks. Inspection results and any repairs shall be recorded in the facility operating record.

H. Containment [40 C.F.R. § 264.175]

The Permittee shall design and operate containment systems for the Main Building and Drum Storage Warehouse, as follows:

1. 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.

2. 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.

3. 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.

4. 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.H.3., to contain any run-on that might enter the system.

5. Spilled or leaked waste shall be removed from the sump or collection area, and the area shall be cleaned, in as timely a manner as is necessary to prevent overflow of the collection system 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 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.

J. Special Requirements for Ignitable or Reactive Waste [40 C.F.R. §§ 264.176 and 270.32(b)(2)]

1. The Permittee shall maintain the facility, as described 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, unless the following requirements are satisfied:

a. Exposing walls that are located more than 10 feet, but less than 50 feet, from a boundary line of adjoining property that can be built upon shall have a fire-resistance rating of at least 2 hours, with each opening protected by an automatically closing fire door with a 1.5-hour rating (Class B);

b. Exposing walls that are located less than 10 feet from a boundary line of adjoining property that can be built upon, shall have a fire-resistance rating of at least 4 hours, with each opening protected by an automatically closing fire door with a 3-hour rating. (Comment: All fire doors, closure devices, and windows shall be installed according to the National Fire Protection Association's "Standard for Fire Doors and Other Opening Protectives" (NFPA 80, as revised));

c. The construction design of exterior walls shall provide ready accessibility for fire-fighting operations through the provision of access openings, windows, or lightweight noncombustible wall panels;

d. Container storage areas shall be provided with automatic fire suppression systems designed and installed according to the NFPA 14 (1996 edition), NFPA 15 (1996 edition), NFPA 16 (1995 edition), NFPA 16A (1994 edition), NFPA 17 (1998 edition), NFPA 17A (1998 edition), NFPA 18 (1995 edition), NFPA 20 (1996 edition), NFPA 22 (1996 edition), and NFPA 24 (1995 edition) standards. Final design of these systems shall be approved by a qualified, professional engineer registered in Missouri;

e. Each container storage area shall have pre-connected hose lines capable of reaching the entire area. The fire hose shall be either a 1.5-inch line or a 1-inch hard rubber line. Where a 1.5-inch fire hose is used, it shall be installed according to NFPA 14 (1996 edition). Hand-held fire extinguishers rated for the appropriate class of fire shall be available at each storage area;

f. Only containers meeting the requirements of, and containing products authorized by, Chapter I, Title 49 of the Code of

Federal Regulations (DOT Regulations) or NFPA 386, Standard for Portable Shipping Tanks shall be used;

g. All storage of ignitable or reactive materials shall be organized in a manner that will not physically obstruct a means of egress. Materials shall not be placed in a manner that a fire would preclude egress from the area. Evacuation plans shall recognize the locations of any automatically closing fire doors;

h. All containers shall be arranged so there is a minimum of 3 feet aisle space between rows, allowing accessibility to each individual container. Double rows can be used. Containers shall not be stacked or placed closer than 3 feet from ceilings or any roof members, or both; and

i. Explosive gas levels in the facility shall be monitored continuously. If the facility is not manned 24 hours per day, a telemetry system shall be provided to alarm designated response personnel.

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. Part 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]

Three tanks currently are permitted and operating at the facility: Tanks 40A, 40B, and 40C. These tanks are located as shown on Figure 5, and are subject to the requirements of 40 C.F.R. Part 264 Subpart J.

A. Waste Identification

In the permitted tanks, the Permittee shall store and treat only the hazardous wastes identified in Part A of the approved permit application. This condition does not preclude storing and treating non-hazardous wastes; however, all stored and treated 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/treatment tanks, unless as provided elsewhere in this Permit.

Table 2 - Storage/Treatment Tank Identification

Tank Name	Tank Capacity (gallons)	Tank Operating Volume (gallons)
40A	30,200	28,960
40B	30,200	28,960
40C	30,200	28,960

C. The Permittee shall meet the requirements of 40 C.F.R. Part 264 Subpart X for blending hazardous waste in tanks, before transporting off site for use as fuel, and for physically treating hazardous waste in tank systems.

D. Permitted Treatment

The Permittee shall perform only blending in the identified tanks, and ancillary equipment to those tanks, as specified in Special Permit Condition III.C. For the purposes of this Permit, blending shall be defined as mixing hazardous wastes, including solvents and oil wastes, to create a fuel blend within a pre-determined BTU range (as determined by the facility operating procedures and waste analysis plan, which are part of the approved permit application) in order to meet the criteria for hazardous waste fuel blending, as described in the approved permit application.

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

The Permittee's tanks and associated appurtenances qualify as existing tank systems. The Permittee has provided a written tank integrity assessment for the existing tanks, as required by 40 C.F.R. § 264.191(a). The Permittee shall keep the written assessment on file at the facility.

F. 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 reviewed by the Department to approve or deny the acceptability of the tank system design.

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 qualified 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).

G. 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 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 waste or accumulated liquids 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 that 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, it is subject to the requirements of Chapter 644, RSMo, as amended. If the collected material is discharged 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 Department's

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 shall be 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 Department. 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: aboveground 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.

H. 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 the tanks 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.

I. Inspections [40 C.F.R. § 264.195]

The Permittee shall inspect all tanks and tank systems as specified in this permit condition and Section 4.2 of the approved permit application. 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.

J. Response to Leaks or Spills and Disposition of Leaking or Unfit-for-Use Tank 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 detection of 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 of any contaminated soil and/or surface water.

4. Notification and Reports

    a. Any release outside of secondary containment, except a release that is exempted under 40 C.F.R. § 264.196(d)(2), shall be reported to the Department 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 immediately is 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.M., 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 to 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).

K. 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," (NFPA 30).

L. 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).

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

1. 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.

2. If the tank system cannot meet the closure requirements and contamination exists, or the tank system is intended to be closed without removing the hazardous waste or hazardous constituents to below acceptable risk-based levels, the tank system shall be closed according to the requirements of 40 C.F.R. Part 264 Subpart N, and Special Permit Condition III.M.1.

IV. Miscellaneous Treatment Units [40 C.F.R. Part 264 Subpart X]

One miscellaneous treatment unit is currently permitted and operating: the Pail Crusher Unit. This unit is located as shown on Figure 5 and is subject to the standards for miscellaneous physical and chemical treatment units in 40 C.F.R. Part 264 Subpart X.

The term "miscellaneous unit" is used to address the device and process located in Room B, on the first floor of the Main building identified as the following:

Pail Crusher Unit (PCU)

The PCU is located on the first floor, Room B, of the Main Building. The unit's process is intended for removal of residual paint and solvent from containers for consolidation into the fuel blending tanks or containerized for transport to another TSD facility. The unit's surrounding area is intended for additional container storage.

A. Waste Identification [40 C.F.R. § 264.601]

The Permittee may store and treat only the hazardous wastes identified in Part A of the approved permit application, subject to the terms of this Permit. The miscellaneous treatment process performed according to this Permit shall be subject to the terms of 40 C.F.R. Part 264 Subparts I, J, BB, and CC, and shall only be performed within Room B, of the Main Building.

B. Waste Quantities [40 C.F.R. § 264.601]

The PCU's treatment capacity shall not exceed 1,500 gallons per hour, as identified on Part A of the approved permit application. The PCU's surrounding area's storage capacity shall not exceed 1,210 gallons as identified on Part A of the approved permit application and in Special Permit Condition II.B.1.b.

C. Control of Fugitive Emissions

The Permittee shall operate, inspect, and maintain all systems and equipment necessary to prevent fugitive emissions from the PCU. The Permittee shall not operate the treatment unit if visible emissions are present, or when the building's emission control equipment is not functioning. The Permittee, at a minimum, shall ensure operation of the PCU is performed using appropriate PPE to mitigate inhalation of hazardous gases.

D. Containment [40 C.F.R. §§ 264.175 and 264.601]

The Permittee shall design and operate the containment system for the area of operation of the PCU as follows:

1. A base shall underlie the unit and containers, which is free of cracks or gaps and is sufficiently impervious to contain accumulated leaks and spills until the collected material is detected and removed.

2. The base shall be sloped or the containment system shall be otherwise designed and operated to drain and remove liquids resulting from leaks or spills unless the containers are elevated or are otherwise protected from contact with accumulated liquids.

3. 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.

4. 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 IV.D.3., to contain any run-on that might enter the system.

5. 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.

E. Operating Requirements [40 C.F.R. § 264.601]

1. The Permittee shall not place hazardous waste in the unit if it could cause any component of that unit to rupture, leak or otherwise fail.

2. The Permittee shall ensure proper operation and maintenance of all automatic equipment that prevents spills and overflows from the PCU or containment system.

3. The Permittee shall use only the unit that is specified in the approved permit application for treatment of hazardous waste.

4. The Permittee shall operate the PCU only according to the manufacturer's applicable operating manuals and as described in the approved permit application.

5. At all times that the unit is operating, the air emissions control equipment shall be operating and fully functional.

F. Response to Leaks or Spills [40 C.F.R. §§ 264.196 and 264.601]

1. In the event of a leak or a spill from the unit, or from the secondary containment system, or if a system becomes unfit for continued use, the Permittee shall remove the system from service immediately and complete the following actions:

a. Stop the treatment process performed by the system, remove existing waste, and inspect the system to determine the cause of the release.

b. Remove waste from the system within 24 hours of detecting the leak to prevent further release and to allow inspection and

repair of the system. If the Permittee finds it will be impossible or impractical to meet this time period, the Permittee shall notify the Department and demonstrate why a longer time period is required, according to General Permit Condition V.

If the collected material is a hazardous waste, it must be managed according to all applicable requirements of 40 C.F.R. Parts 262, 263, 264, 266, 268, and 270. The Permittee shall note that if the collected material is discharged through a point source to public waters or to a publicly owned treatment works, it is subject to requirements of the Clean Water Act.

c. The Permittee shall immediately conduct a visual inspection of all releases to the environment and, based on that inspection:

(1) Prevent further migration of the leak or spill to soils, surface water, or groundwater;

(2) Remove and properly dispose any visible contamination of the soil or surface water; and

(3) Determine the extent of contamination to the soil, surface water, or groundwater.

2. In the event of equipment failure:

a. For a release caused by a spill that has not damaged the integrity of the system, the Permittee shall remove the released waste and make any necessary repairs to fully restore the integrity of the system before returning the system to service.

b. For a release caused by a leak from the unit to the secondary containment system, the Permittee shall repair the unit prior to returning it to service. The material released shall be thoroughly removed from the affected area.

c. If the Permittee replaces a component of the system to eliminate the leak, that component must satisfy the requirements for new tank systems or components required by 40 C.F.R. §§ 264.192 and 264.193.

3. For all major repairs to eliminate leaks or restore the integrity of the system, the Permittee must obtain a certification by a qualified professional engineer registered in Missouri before returning the system to service. The certification must state the repaired system is capable of handling hazardous wastes permitted for treatment within the unit without release for the intended life of the system.

G. Inspection Schedules and Procedures [40 C.F.R. § 264.602]

1. The Permittee shall inspect the PCU according to the Inspection Schedule specified in Section 4, Table 4-1, of the approved permit application.

2. The Permittee shall inspect once each operating day:

a. All visible portions of the unit to detect corrosion, fugitive emissions, or releases of waste or treatment residues; and

b. Floors for any residual waste material that has not been removed.

3. The Permittee shall visually inspect equipment used to manage liquids daily for leaks, spills, or other releases of hazardous waste.

4. The Permittee shall document compliance with Special Permit Condition IV.G. and record and maintain the information in the facility operating record.

H. Recordkeeping and Reporting [40 C.F.R. § 264.602]

1. The Permittee shall report to the Director, within 24 hours of detection, when a leak or spill occurs from the PCU or secondary containment system to the environment, except for:

a. A leak or spill of one pound or less of hazardous waste, that is immediately contained and cleaned up within four hours of release; and

b. Releases that are contained within a secondary containment system and cleaned up within 24 hours of release.

2. Within 15 calendar days of detecting a release to the environment from the PCU or secondary containment system, the Permittee shall report the following information to the Department:

   a. Likely route of migration of the release;

   b. Results of any monitoring or sampling conducted in connection with the release. If the Permittee finds it will be unable to meet this time period, the Permittee shall provide the Department with a schedule of when the results will be available. This schedule must be provided before the required 15-day submittal period expires;

   c. Proximity of downgradient drinking water, surface water, and populated areas;

   d. Description of response actions taken or planned; and

   e. Description of countermeasures needed to preclude migration to or in any and all media, including, but not limited to, information specified in all provisions of 40 C.F.R. §§ 264.601(a), (b), or (c), as deemed appropriate by the Department.

3. The Permittee shall obtain, and keep on file at the facility, the written statements by those persons required to certify the design and installation of the unit.

I. Special Requirements for Ignitable or Reactive Wastes [40 C.F.R. §§ 264.17 and 264.601]

1. The Permittee shall not place ignitable or reactive waste in the PCU or in the secondary containment system.

2. The Permittee shall comply with the requirements for maintaining the protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line that can be built upon, unless the applicable requirements of Special Permit Condition II.J.2. have been met.

J. Special Requirements for Incompatible Wastes [40 C.F.R. §§ 264.17 and 264.601]

1. The Permittee shall not place incompatible wastes or materials in the PCU, unless such action complies with the requirements of 40 C.F.R. §§ 264.17(b) and (c).

2. The Permittee shall not place incompatible wastes or materials in the same unit or secondary containment system, unless such action complies with the requirements of 40 C.F.R. § 264.17(b).

3. The Permittee shall not place hazardous wastes or materials in the PCU that has not been decontaminated and that previously held an incompatible waste or material, unless such action complies with the requirements of 40 C.F.R. §§ 264.17(b) and (c).

K. Closure [40 C.F.R. § 264.601 and 40 C.F.R. Part 264 Subparts G and H]

At closure of the PCU, the Permittee shall remove or decontaminate all hazardous waste and hazardous waste residues from the miscellaneous unit, including, but not limited to: contaminated equipment and structures, including the surrounding area, 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 estimate, and financial responsibility for the miscellaneous unit shall meet all requirements specified in 40 C.F.R. Part 264 Subparts G and H.

V. Lab Pack Depack Operation

A. The Permittee shall comply with the proposed operation and maintenance standards according to the Lab Packing Procedure specified in Section 3.6 of the approved permit application.

B. In addition to the procedures outlined in the approved permit application, the Permittee shall also comply with the following:

1. Upon receipt, all lab pack containers that are not to be processed within 24 hours shall be stored in the designated storage area relative to the proper chemical hazard classification;

2. Only one **organic** lab pack container may be placed in the consolidation area for packing/depacking at any given time;

3. Only two **inorganic** lab pack containers may be placed in the consolidation area for packing/depacking at any given time;

4. The designated consolidation areas shall be clearly delineated with tape or painted lines on the floor of the facility;

5. No lab pack container may remain in the designated consolidation area longer than 24 hours. The designated consolidation area is not a permitted storage area;

6. When the accumulation container is full, it shall be removed from the designated consolidation area; and

7. The air emissions control equipment shall be operating and fully functional when the lab pack containers are being packed or depacked.

VI. 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.

VII. Air Emission Standards for Tanks, and Containers [40 C.F.R. Part 264 Subparts 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
Tank 40A	Tank	Tank Level 2
Tank 40B	Tank	Tank Level 2
Tank 40C	Tank	Tank Level 2
Main Building Floor 1	Container Storage	Container Level 1
Main Building Floor 2	Container Storage	Container Level 1
Main Building Floor 3	Container Storage	Container Level 1
Main Building Floor 4	Container Storage	Container Level 1
Drum Storage Building	Container Storage	Container Level 1
Paint Related Materials Repackaging Area	Paint and Solvent Consolidation	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, G, H, and S, 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. The EPA, via Jacobs Engineering Group Incorporated, completed a RCRA Facility Assessment (RFA) to identify and gather information on releases or potential releases from SWMUs and AOCs at the facility, including those that appeared to require further investigation. The RFA, dated September 1989, identified the following 15 SWMUs within the facility boundaries: Drum Storage and Staging Areas (Basement, First, Second, Third, and Fourth Floors), Washex Still Area, DCI Still Area, Fuel Blending Area, Courtyard Area, Neutralization Area, Tank Farm, Wastewater Treatment Unit, East Loading Dock Area, Stationary Rail Tank Car, and Tank Truck Parking Lot. The RFA concluded that two SWMUs required further investigation and/or

remediation. Figures 3 and 4 show the approximate locations of the SWMUs at the facility. The SWMUs requiring further investigation are as follows:

1. SWMU 1 – Tank Truck Parking Lot (TTPL) SWMU

   This SWMU is in the northeast corner of Eighth and Mulberry Streets, due east of the main building. Bulk tank trailers were parked there; however, wastes are not currently stored in this SWMU. The TTPL has a gravel base and is surrounded by a chain-link fence; there were no curbs or containment structures in place. There have been two known releases from the TTPL: the first on May 11, 1985, and the second on January 29, 1988. The 1985 release occurred when a flange bolt wore a hole in the wall of a 6,000-gallon tank trailer. Approximately 2,000 to 2,500 gallons of mixed solvents, consisting of paint thinner, mineral spirits, and acetone, were allowed to leak out. The Permittee recovered as much of the free liquids as possible, and the contaminated gravel and soil, all of which were disposed of off-site. All but 200 to 250 gallons of solvent were recovered. The 1988 release occurred when a tank trailer tipped onto its nose in the parking lot after failure of the dolly legs. Approximately 200 to 300 gallons of the 6,800-gallon capacity of a D001 flammable liquid were released through a loose cap on the first tank compartment. A large amount of the free liquid, as well as contaminated soil, were recovered and disposed of off-site.

2. SWMU 2 – Stationary Rail Tank Car (SRTC) SWMU

   This SWMU consisted of a 10,000-gallon, stationary, DOT 103 expanded dome tank car, located on the north side of the 716 S. Mulberry Street building. The SRTC was contained in a structure consisting of a four-foot-high concrete block wall on three sides, with the north exterior wall of the building making up the fourth side. The structure had a concrete floor and was covered in 1990 to prevent the entry of precipitation. The SRTC was used as an intermediate tank to store materials used for blending. These wastes had designations of D001, F003, F004, and F005 solvents, as well as non-halogenated still-bottoms from the distillation of various ignitable solvents. A known release from this tank occurred on June 20, 1988, when 3,000 gallons of waste ink solvents leaked from a railroad tank car parked adjacent to the SWMU area.

A third SWMU requiring corrective action was later categorized after initially having been inspected and no signs indicating the occurrence of a past release were detected. The facility notified EPA Region 7 in a RCRA Facility Investigation (RFI) Quarterly Report, dated July 21, 1992, that while conducting facility modifications in the Courtyard Area, contaminated soil was discovered under the concrete floor.

3. SWMU 3 – Courtyard Area SWMU

This SWMU was discovered during modifications to the facility in 1992. It is an open space on the west side of the main storage building, and is surrounded by 30-inch-high concrete curbing. Aboveground storage tanks formerly stored wastes here, and analytical results of soil samples beneath this area found remnants of toluene, xylenes, and ethyl acetate. During the modifications, approximately 40 to 50 yards of contaminated soil were removed, shipped off site, and replaced with compacted clay; the clay was covered with 9.5 inches of reinforced concrete and four aboveground storage tanks were installed. Any precipitation that falls in this area is collected in a concrete sump and analyzed prior to discharge into a sanitary sewer.

On February 1, 2001, an 11,000-gallon “Super Blender” aboveground storage tank used for blending fuel, which was located within the Courtyard SWMU, exploded, spreading waste north, northeast, and east. A third-party investigator concluded that the fuel blended in the tank had contained an aluminum paste that reacted with small amounts of water. This reaction had generated hydrogen gas that led to the explosion and subsequent fire. The waste that had been spread from the explosion was a distinctive dark gray color, and was found on the surrounding properties; it seems that the properties to the west and south were protected from splatter by the existing buildings. Media impacted by the splatter included soil, porous brick and concrete, asphalt pavement, coated rubber roofing membrane, asphalt roofing material, rail ballast material, steel rails, railroad ties, and creosote treated telephone poles. Affected properties included the Landmark West Bottoms, Railroad, Department of Corrections, and the Solvent Recovery facility itself. Most of the splattered fuel was cleaned up during the activities in response to the explosion. Approximately 275,000 gallons of firefighting water, contained storm water, and water from a ruptured pipe on the adjacent drum storage building came

into contact with hazardous materials, and the amount of contaminated water that infiltrated the soil on the north side of the Courtyard and SRTC SWMUs could not be determined. The releases from the explosion are being addressed as part of the activities associated with the Courtyard SWMU.

B. The status of the known SWMUs 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, 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 releases of hazardous waste or hazardous constituents to soil, surface water, sediment, groundwater, and/or air have 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. <u>Notification Requirements for, and Assessment of, Newly Identified SWMUs and AOCs</u>

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 available previously), 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 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 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.

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 available previously), of any newly identified release(s) of hazardous wastes or hazardous constituents from any previously identified SWMU(s) or AOC(s) at the facility. This includes SWMUs or AOCs being investigated and reported as part of the corrective action process, where newly identified release(s) are discovered during the course of groundwater monitoring, field investigation, environmental auditing, or other activities undertaken after 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 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 that 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. The Permittee submitted the "Soil Vapor Extraction – Interim Measures Work Plan," dated February 28, 2003. On April 4, 2003, the work plan was approved and the Permittee began conducting ISMs at the facility. A summary of the ISMs conducted are as follows:

1. Soil Vapor Extraction (SVE) System:

The soil vapor extraction system has been operating since 2003. As of June 2018, the SVE System has removed approximately 34,372 pounds of vapor from the subsurface. Two extraction wells, SVE-1 and SVE-2, initially were installed, but SVE-1 became ineffective due to siltation and was replaced with SVE-1B in late 2009.

2. Monitored Natural Attenuation (MNA):

Solvent Recovery has provided evidence that natural attenuation likely is taking place beneath the site. Groundwater samples are being analyzed for parameters that indicate MNA, such as carbon dioxide, nitrate, oxidation-reduction potential, and alkalinity, every two years to demonstrate that MNA still is occurring. The results of analysis of these parameters consistently show the presence of a strongly reducing subsurface environment, allowing for reductive dechlorination and other anaerobic biodegradation to occur.

B. The Permittee's interim groundwater monitoring program, currently based on the Groundwater Monitoring Plan, dated January 14, 2003, shall continue until a final remedy has been put into place, or until the Permittee demonstrates that contamination in the groundwater resulting from releases attributed to facility operations no longer poses a risk to human health or the environment.

C. 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, by e-mail or telephone within 24 hours and by letter within seven days after becoming aware, or should have become aware, of the situation. The Department may examine the facility's inspection records to determine if the Permittee should have known that 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 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, or after a determination should have been made, 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 may require additional corrective action measures 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 the Department determines 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. The Phase II RFI Work Plan was submitted to the Department on May 16, 1996. The Department provided comments on the Phase II RFI Work Plan to the Permittee in December 1996. The Permittee submitted a revised Phase II RFI Work Plan to the Department on October 18, 1996, which the Department approved on February 26, 1997, as well as addenda on June 20, 1997, November 3, 1997, May 6, 1998, and November 12, 1999.

B. Due to several data gaps, the Department requested a supplemental RFI be executed. A supplemental RFI Work Plan was submitted on September 16, 2011, with an addendum submitted on August 31, 2012; these

documents are being reviewed by the Department. The Permittee shall complete all activities described in the Phase II RFI Work Plan addendum according to the schedule contained in the work plan, which is predicated on the date the Department approves the plan.

C. If the Department determines additional investigations are needed, the Department may require the Permittee to conduct an additional supplemental 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 additional supplemental RFI, and after meeting with the Department to discuss the content of the Work Plan, the Permittee shall prepare and submit an additional supplemental RFI Work Plan to the Department for review and approval.

D. Each additional supplemental 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 supplemental RFI Work Plan shall contain provisions sufficient to meet the following objectives and a proposed schedule for implementing the supplemental 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.

E. Each additional supplemental 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 supplemental 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 supplemental RFI Report);

3. The qualifications of personnel performing or directing the investigations, including contractor personnel; and

4. The overall management of the RFI activities.

F. Each additional supplemental RFI Work Plan shall include a Quality Assurance Project Plan (QAPP), which shall present the policies, organization, objectives, functional activities, and specific quality assurance and quality control (QA/QC) activities designed to achieve the data quality goals of the supplemental RFI. It shall include, at a minimum, the supplemental 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.

G. The Permittee shall prepare and maintain a Health and Safety Plan during the project that ensures the supplemental RFI activities are conducted in a manner that is protective of human health and the environment.

H. Due to the complexity of defining the extent of contamination, the Permittee may be required to use a phased approach that requires submitting additional supplemental RFI Work Plans.

I. The Department shall review and approve the supplemental RFI Work Plan(s) according to the procedures described in General Permit Condition IV. The Permittee shall complete all activities described in the supplemental RFI Work Plan(s), according to the schedules contained in the approved plan(s).

VI. RCRA Facility Investigation (RFI) Report

A. The Permittee submitted the Phase II RFI Report to the Department on January 1, 2002, and a Data Gap Report on January 31, 2003. The Final RFI Data Gap Report was submitted on July 18, 2005, and approved on April 5, 2006.

B. A supplemental RFI Work Plan, dated September 16, 2011, was submitted by the Permittee and is in the process of being reviewed by the Department. After Departmental approval, a supplemental RFI Report will be expected, according to the schedule contained in the approved plan.

C. Should additional investigations become necessary, the Permittee shall submit a supplemental RFI Report to the Department, according to the schedule specified in the approved supplemental RFI Work Plan described in Corrective Action Condition V. The supplemental RFI Report shall present all information gathered under the approved supplemental RFI Work Plan, along with a brief facility description and map showing the property boundary and all SWMUs and AOCs. The supplemental RFI Report shall contain adequate information to support additional corrective action decisions at the facility. Information contained in the supplemental 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.

D. The supplemental RFI Report shall provide an interpretation of the RFI information gathered, supported with adequate documentation, to enable the Department to determine whether additional ISMs or a Corrective Measures Study (CMS) may be necessary. The supplemental 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 supplemental RFI data and documenting its precision, accuracy, representativeness, completeness, comparability, validation, etc.).

E. The Department shall review and approve the supplemental RFI Report according to the procedures described in General Permit Condition IV. If the

Department determines the objectives of the supplemental RFI have not been met, the Department may require additional investigation. Upon approval of the supplemental 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

A. The Permittee submitted a CMS Work Plan, dated December 15, 2000, with updates, dated September 30, 2002, and November 27, 2002. The CMS Work plan was not approved, as the Department determined that additional RFI work needed to be done. After the Data Gap Reports were approved, the Permittee submitted another CMS Work Plan, dated August 29, 2007, which the Department approved in a letter dated September 26, 2007.

B. 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.

C. 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.

D. 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.

E. 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

A. PSC Industrial Outsourcing, LP, on behalf of the Permittee, submitted a draft CMS Report to the Department on March 30, 2009. During review of this report, the Department determined that additional RFI activities were needed in order to close data gaps. Review of this, or supplemental CMS Report(s) will be completed when the RFI is complete.

B. 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 gathered under the approved supplemental CMS Work Plan or Remedy Evaluation Plan and 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.

C. 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).

D. 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.

E. 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, if required, 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 XIII.; 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.

D. In the event that new SWMU(s), AOC(s), or release(s) are identified on the permitted facility property, the Permittee shall comply with Corrective Action Conditions II. and III., as appropriate. New SWMU(s), AOC(s), or release(s) that are identified shall be reported to the Department.

XI. Certification of Completion of Construction of Final Remedy

A. If the Department or Permittee determines a final remedy is necessary, all current Corrective Action Conditions shall continue 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, approved final remedy decision, and CMI Work Plan. The certification shall be signed by the Permittee and a professional engineer 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 providing 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 that groundwater contaminant values do not exceed risk-based levels for protection of human health and the environment, as identified in the SAP required by Corrective Action Condition XIV.B.1. Factors to address in the demonstration include:

1. The continued presence (or lack thereof) of legally enforceable groundwater use restrictions,

2. The groundwater contaminant plume(s) has been stable or decreasing for at least three consecutive years,

3. The groundwater contaminant risk-based values for protection of human health and the environment are not likely to be exceeded in the future beyond the permitted facility property boundaries, and

4. Future expansion of the groundwater contaminant plume(s) is unlikely beyond the three consecutive year period due to "contaminant rebound" related to back diffusion of contaminants from matrix or secondary porosity features.

The Permittee's groundwater corrective action interim measures 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 of receipt of the Department's approval of the documentation verifying completion of all corrective action under Corrective Action Condition XII.B., 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 Report, approved final remedy decision, and CMI Work Plan. The certification shall be signed by the Permittee and a professional engineer registered in Missouri.

D. Facility-wide cessation of the groundwater corrective action interim measures program will require the submittal of 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 or AOC. 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 for review and approval by the Department. 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 the transfer of 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 residual 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.

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. Missouri Environmental Covenants Act

If, and when, the Department determines that implementing an Environmental Covenant is required at the facility, the Environmental Covenant shall be developed and executed in conformance with the Missouri Environmental Covenants Act, Section 260.1000 through 260.1039, RSMo, and Departmental guidance provided to the Permittee.

XIV. Groundwater Monitoring and Corrective Action Program [40 C.F.R. § 264.101]

A. Interim Groundwater Monitoring Plan

1. The Permittee submitted, and is currently operating under, a Revised Groundwater Monitoring Plan, dated January 14, 2003. This Groundwater Monitoring Plan continues to be an interim measure response to releases attributed to facility operations. Continued groundwater monitoring is necessary to ensure adequate delineation of the horizontal and vertical extent of groundwater contamination.

2. The Permittee shall, within 90 days after the effective date of this Permit, submit to the Department for review and approval, an updated Interim Groundwater Monitoring Plan. The updated plan shall be applicable to current conditions identified at the facility (e.g. number and location of all groundwater monitoring wells, analyte list, Conceptual Site Model, etc.). Further revision of the Interim Groundwater Monitoring Plan may be necessary for any newly identified SWMUs, AOCs, or releases from previously identified SWMUs and AOCs.

3. The Department shall review the Interim Groundwater Monitoring Plan according to the procedures outlined in General Permit Condition IV. The Permittee shall implement the plan within 90 calendar days of approval by the Department and continue groundwater monitoring until approval of a final remedy.

4. The Permittee shall report the groundwater-related information and analysis results obtained during implementation of the approved Interim Groundwater Monitoring Plan as part of the Annual Groundwater Corrective Action Report, required in Corrective Action Condition XVI. The Annual Groundwater Corrective Action Report

shall include a summary and analysis of the groundwater monitoring results for the reporting period, groundwater potentiometric surface maps, groundwater quality trend graphs, and a map delineating the boundaries of the contaminant plume, as appropriate. The Annual Progress Report shall also identify and discuss any obvious trends, increasing levels of contamination, and/or any abnormalities in the data.

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

The Permittee shall comply with applicable sections of 40 C.F.R. § 264.97 as applied to groundwater monitoring and corrective action being conducted under 40 CFR § 264.101, and the following additional requirements.

1. Within 90 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 throughout the

groundwater contaminant plume(s), including beyond the facility property boundary;

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 interim measure 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 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 proposed plan for installing additional monitoring wells to define such extent.

   When 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, and be designated for continued monitoring in, the Permittee's SAP. The Department shall notify the Permittee, in writing, regarding this determination. Within 60 calendar days after receiving this notification, the Permittee shall consult the Department regarding the need for SAP modification to incorporate the new wells. If SAP modification is required, the timeframe for such modification will be established via discussion with the Department. If agreeable to the Department, the Permittee may elect to submit an annual SAP modification to incorporate any needed changes in lieu of a modification for each individual change.

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 the requirements of 40 C.F.R. Part 264 Subpart F,

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 Reports, 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 Reports, described in Corrective Action Condition XVI.

    b. Within 60 calendar days of MGS's registration acceptance, the Permittee shall consult the Department regarding the need for SAP modification to remove the plugged wells. If SAP modification is required, the timeframe for such modification will be established via discussion with the Department. If agreeable to the Department, the Permittee may elect to submit an annual SAP modification to incorporate any needed changes in lieu of a modification for each individual change.

    Installing additional investigation wells does not require a 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.

7. The Permittee shall contact the Department at least seven calendar days before conducting any fieldwork associated with constructing or modifying the groundwater monitoring system or installing any additional groundwater monitoring wells required by this Permit. The Department shall then have the option to observe 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.

8. 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 groundwater 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 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 60 calendar days after identifying any surface or subsurface well integrity problem(s). If adverse weather or site conditions prevent the Permittee from gaining access to and/or repairing flood-impacted monitoring wells within 60 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 Reports, required by Corrective Action Condition XVI.

C. 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 SVE operations, and groundwater monitoring, according to Corrective Action Condition IV. and XIV., the "Soil Vapor Extraction – Interim Measures Work Plan," dated February 28, 2003, and the approved Interim Groundwater Monitoring Plan. 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. The corrective action program is based on:

    a. The inability to differentiate groundwater contamination related to releases from multiple SWMUs, 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. Evidence of groundwater plume expansion that may act as a "trigger" for additional investigation, evaluation, or implementation of additional groundwater remedial alternatives or ISMs.

    d. The desirability of implementing a holistic, facility-wide approach to groundwater investigation, monitoring, and remediation given the foregoing circumstances.

2. Until such time as a final remedy is approved, the Permittee shall perform groundwater sampling and analysis and field measurement of groundwater-related parameters to monitor releases from the SWMUs according to latest Department-approved Interim Groundwater Monitoring Plan and SAP.

a. Sampling and analysis in accordance with this schedule shall begin during the next regularly scheduled sampling event, following approval of the revised SAP required by Corrective Action Condition XIV.B.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. § 264.101 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.

d. Specific perimeter wells to be monitored shall be specified in the Permittee's approved SAP required by Corrective Action Condition XIV.B.1.

e. Installing additional perimeter wells may be necessary to meet the requirements of 40 C.F.R. § 264.101 and this Permit. If any such wells are installed, they may be subject to the monitoring requirements contained in the approved groundwater SAP. Installing additional perimeter wells does not require a permit modification, but does require prior Department approval according to Corrective Action Condition XIV.B.4.

f. New monitoring wells installed following issuance of this Permit that are used for delineating the extent of groundwater contamination shall be subject to sampling and analysis at a frequency and for a period of time that is sufficient to establish contaminant trends in these wells.

3. Wells monitored to assess the effectiveness of the Permittee's interim groundwater monitoring program (hereafter referred to as

effectiveness wells) shall be sampled and the samples analyzed annually.

a. Specific effectiveness wells to be monitored shall be specified in the Permittee's SAP required by Corrective Action Condition XIV.B.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. § 264.101 and this Permit. If any such wells are installed, they may be subject to the monitoring requirements contained in the approved groundwater SAP. Installing effectiveness wells does not require a permit modification, but does require prior Department approval.

c. New monitoring wells installed following issuance of this Permit that are used to assess the effectiveness of groundwater contamination shall be subject to sampling and analysis at a frequency and for a period of time that is sufficient to establish contaminant trends in these wells.

4. Only single sample analyses (as opposed to replicates) are required for the parameters monitored according to the approved groundwater SAP, with the exception of duplicate samples taken for QA/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 (NAPL) 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.

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 noncompliance with the corrective action requirements of this Permit not otherwise required to be reported elsewhere in this Permit.

C. If the Department determines that further 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, amount of soil vapor extracted, and other relevant groundwater-related information, as appropriate.

B. A discussion of any exceedances of effluent limits contained in 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 interim measures 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 removing, containing, or controlling the groundwater contaminant plume(s);

2. The horizontal and vertical extent and concentrations of hazardous constituents 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 its potential or actual influence on the groundwater data or effectiveness of the groundwater corrective action interim measures 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 also 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 interim measures 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 reporting 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.B.

XVII. Planned and Contingent Activities

A. Until the Department has reviewed and approved the supplemental RFI and/or CMS Work Plans, no planned corrective action activities currently are specified in this Permit.

B. The Permittee shall comply, as necessary, with the schedule(s) for contingent corrective action activities, as specified in this Permit and summarized in Table 6.

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 through 260.430, et seq., RSMo; 40 C.F.R. Part 264 Subpart 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. The Permittee submitted, as part of the approved permit application, an updated closure cost estimate. If, in the future, the Permittee submits a notice of intent to close a hazardous waste management unit at the facility, effectively partially closing the facility, within 60 calendar days after notification of partial closure, the Permittee shall submit an updated, detailed written cost estimate, in current dollars, of the cost of hiring a third party, as identified in Financial Assurance Condition I.A.2.a., to perform the closure of the remaining units at the facility.

2. If, in the future, a CMS or equivalent becomes necessary as part of the corrective action activities required by this Permit, within 60 calendar days of notification of final remedy approval, the Permittee shall submit, as part of the CMS Report, a detailed written cost estimate, in current dollars, of the cost of hiring a third party to perform the remedial alternatives identified in the approved CMS.

   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 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 include a contingency cost allowance of 10 percent of the total cost of all corrective action activities.

e. 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.

f. Discounting is not allowed for closure 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 required corrective action, the full amount of financial assurance will be available based on the future value of money.

3. The Permittee shall submit each closure 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.

4. The Permittee shall maintain, in the operating record, the most recent closure cost estimate that has received a final written response from the Department.

B. Revisions to Closure Cost Estimates

1. Annual Adjustment for Inflation

The Permittee shall annually adjust the closure 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 establishing 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 of the end of the provider'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 of 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) and 264.145(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, 264.145, 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.

   b. If the Permittee chooses to establish financial assurance by using a letter of credit, 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 letter of credit 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.

4. Policy of Insurance

   a. A policy of insurance shall provide the Department with rights, as a beneficiary, and be issued by an insurance carrier that has the authority to issue insurance policies in Missouri and whose insurance operations are regulated and examined by a federal or state agency.

   b. The insurance policy shall be issued for a face amount at least equal to the current closure and corrective action cost estimate for which the facility has received a final written response from the Department, except that the face amount may exclude costs covered by another financial assurance instrument, as permitted in Financial Assurance Condition II.D.

   c. The insurance policy shall state that the insurer shall make payments up to an amount equal to the face amount of the policy, 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 or corrective action activities required by this Permit.

d. The insurance policy shall also state that it may not be canceled, terminated, or non-renewed and the policy shall remain in full force and effect in the event that:

(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) and 264.145(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) and 264.145(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) and 264.145(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, within 90 calendar days after the close of the guarantor's fiscal year,

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 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 of receiving such notice, the Permittee shall submit to the Department for review and evaluation, 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 of 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.

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.

FACILITY SUBMISSION SUMMARY

Table 4 - Summary of the Planned Submittals Required by this Permit

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.
Revised Part A permit application	Within 60 calendar days after effective date of this Permit.	Schedule of Compliance Item I.B.
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.C.
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.D.
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.E.
Revised Interim Groundwater Monitoring Plan	Within 90 calendar days after effective date of this Permit.	Schedule of Compliance Item II.A.
Revised SAP/QAPP	Within 90 calendar days after effective date of this Permit.	Schedule of Compliance Item II.B.
Biennial Report with information required by 40 C.F.R. § 264.75	March 1 of each even numbered calendar year.	General Permit Condition II.
Permit Renewal Application	Within 24 months of expiration date of this Permit.	Standard Permit Condition I.

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

Table 5 - Planned Corrective Action Submittals Specified in 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.
Annual Groundwater Corrective Action Reports	March 1 of each calendar year.	XVI.
Corrective action cost estimate	Within 60 calendar days after final remedy permit modification.	XV.A.1.
Updated corrective action cost estimate	Annually, within 60 calendar days before anniversary date of establishment of the financial assurance instrument.	XV.A.2.

Table 6 - Contingent Corrective Action Submittals Specified in 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.
Newly-Identified Release Report	According to the schedule in the approved Newly-Identified Release Work Plan.	III.D.
Notification of need for interim/ stabilization measures	Within 24 hours after discovery of need for stabilization.	IV.C.1.
Notification of interim/ stabilization measures not effective	Within ten calendar days after determination.	IV.C.3.

Contingent Submittal Requirements	Due Date	Corrective Action Condition
RCRA Facility Investigation (RFI) Work Plan	Within 60 calendar days of notice by the Department that a work plan is required.	V.B.
RCRA Facility Investigation (RFI) Report	According to the schedule in the approved RFI Work Plan.	VI.B.
Corrective Measures Study (CMS) Work Plan	Within 45 calendar days of notice by the Department that a supplemental CMS Work Plan is required.	VII.D.
Corrective Measures Study (CMS) Report	According to the schedule in the approved CMS Work Plan.	VIII.B.
Corrective Measures Implementation (CMI) Work Plan	According to the schedule in the permit modification to implement a final remedy.	X.
Certification of final remedy construction	Within 60 calendar days after completion of all construction activities.	XI.B.
Certification of Completion of Corrective Measures	Within 60 calendar days after receipt of Department approval of document verifying completion.	XII.C.
Transfer of Interest in Permitted Property	At least 90 calendar days before the transfer of any portion of permitted property.	XIII.B.
Change in Use of Property	At least 30 calendar days before any proposed change in use of permitted property.	XIII.C.

FIGURES

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/mod000610766/20200302-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/mod000610766/20200302-figure2.pdf

Figure 3 – Location of Corrective Action-Relevant SWMUs and AOCs at the Facility

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Please see hard copy or separate electronic file online at
https://dnr.mo.gov/env/hwp/permits/mod000610766/20200302-figure3.pdf

Figure 4 - Approximate Locations of SWMUs

Figure not available due to size.
Please see hard copy or separate electronic file online at
https://dnr.mo.gov/env/hwp/permits/mod000610766/20200302-figure4.pdf

Figure 5 - Tanks and Drum Storage Warehouse

Figure not available due to size.
Please see hard copy or separate electronic file online at
https://dnr.mo.gov/env/hwp/permits/mod000610766/20200302-figure5.pdf

Figure 6 - Container Storage Main Building Floors 1-4

Figure not available due to size.
Please see hard copy or separate electronic file online at
https://dnr.mo.gov/env/hwp/permits/mod000610766/20200302-figure6.pdf