



Matt Blunt, Governor • Doyle Childers, Director

# DEPARTMENT OF NATURAL RESOURCES

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## MISSOURI HAZARDOUS WASTE MANAGEMENT FACILITY PERMIT PART I PERMIT NUMBER: MOD095486312

### PERMITTEE

Owner and Operator: Safety-Kleen Systems, Incorporated  
5400 Legacy Drive, Cluster II, Bldg. 3  
Plano, TX 75024

### FACILITY LOCATION

4526 Towne Court  
St. Charles, MO 63304  
St. Charles County  
North Latitude – 38°44'21"  
West Longitude – 90°36'29"

### FACILITY DESCRIPTION

Safety-Kleen Systems, Incorporated's St. Charles, Missouri, facility is an accumulation point for spent solvents, paint wastes, lacquer thinner wastes, and waste oil generated by Safety-Kleen customers. The facility also stores other types of wastes on a 10-day transfer basis. Permitted activities include the storage of hazardous waste in containers and tanks. Wastes are ultimately shipped off-site to a Safety-Kleen recycling facility or a contract reclaimer for processing.



**PERMITTED ACTIVITIES**

This Permit allows for the storage of “characteristic” hazardous waste as well as various “F” and “K” listed hazardous wastes as specified in the Part A application. This Permit also contains corrective action provisions to address any release(s) to the environment of hazardous waste or hazardous constituents at the facility that may pose a threat to human health or the environment.

EFFECTIVE DATES OF PERMIT: September 27, 2007 to September 27, 2017

September 27, 2007  
Date

[Original Signed by Doyle Childers]  
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Doyle Childers, Director  
DEPARTMENT OF NATURAL RESOURCES

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## INTRODUCTION

After public notice, according to 10 CSR 25-8.124 and 40 CFR Part 124, and review of Safety-Kleen Systems, Incorporated's Resource Conservation and Recovery Act Part B Permit Application, (hereafter referred to as the Application), the Missouri Department of Natural Resources (hereafter referred to as the Department) has determined that the application substantially conforms to the provisions of the Solid Waste Disposal Act, as amended by Resource Conservation and Recovery Act and regulations promulgated thereunder by the U.S. Environmental Protection Agency (hereafter referred to as EPA) (codified and to be codified in Title 40 of the Code of Federal Regulations) and the Missouri Hazardous Waste Management Law (and all standards, rules, and regulations adopted under this act), Section 260.350, et seq., RSMo. Following Section 260.375.13, RSMo, and the Solid Waste Disposal Act, the Department hereby approves the application and issues Permit Number MOD095486312 to Safety-Kleen Systems, Incorporated (hereafter referred to as the Permittee) for the operation of the hazardous waste facility as set forth in the application and this Permit. This Permit also addresses corrective action requirements for solid waste management units and the requirements of the Hazardous and Solid Waste Amendments of 1984 (commonly known as HSWA) as administered and enforced by the Department. Applicable regulations are found in 40 CFR Parts 124, 260 through 264, 266, 268, and 270, as specified in this Permit. Part I of this Permit is issued under state authority by the Department. Part II is issued under federal authority by EPA to address regulatory requirements of the HSWA for which the state is not yet authorized. Part I of this Permit shall remain in effect even if Part II is terminated or has expired.

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

- The permit application submitted by the Permittee September 11, 2002, and all revisions dated October 2, 2003, January 26, 2004, May 4, 2005 and September 13, 2005; and
- The habitual violator disclosure statement received July 14, 2006.

The "consolidated permit application" is defined as the "approved permit application," along with all of the additional documents to be submitted under Schedule of Compliance, Item I.A.

Any inaccuracies found in information submitted may be grounds for the termination, revocation and re-issuance, or modification of this Permit in accordance with 40 CFR Part 270 Subpart D, incorporated by reference in 10 CSR 25-7.270(1) and modified in 10 CSR 25-7.270(2)(D), and for potential enforcement action. The Permittee shall inform the Department of any deviation from, or changes in, the information in the application, which would affect the Permittee's ability to comply with the applicable regulations or permit conditions.

When the Department receives any information (such as inspection results, information from the Permittee, or requests from the Permittee), it may decide whether cause exists to modify, revoke and reissue, or terminate a facility's permit. All such changes to the Permit will be in accordance with 10 CSR 25-7.270(2)(D), 10 CSR 25-8.124, and 40 CFR Part 270 Subpart D, as incorporated by reference in 10 CSR 25-7.270(1).

All permit application information shall be available to the public unless nondisclosure is requested in writing as set forth in Section 260.430, RSMo and 10 CSR 25-7.270(2)(B)2. The Permit and accompanying material will be available for review by the public at the Department's central office in Jefferson City, Missouri; the EPA, Region VII office in Kansas City, Kansas; and the St. Charles City-County Library, Kisker Road Branch, in St. Charles, Missouri.

Construction and operation of this hazardous waste facility and corrective action shall be in accordance with the provisions of this Permit, the Missouri Hazardous Waste Management Law (Sections 260.350 to 260.430, RSMo), the rules and regulations promulgated thereunder [Code of State Regulations, Title 10, Division 25 (10 CSR 25)] as effective on the date of this Permit, all the final engineering plans, petitions, specifications, and operating procedures which were submitted to the Department during the permit application review process and which are included in the final version of the permit application, which is hereby approved by the Department, and any other conditions, changes, or additions to the plans, specifications, and procedures as specified in this Permit. The consolidated permit application, which includes engineering plans, specifications and operating procedures, is therefore incorporated 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.

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, the Hazardous Waste Program, the Land Reclamation Program, the Solid Waste Management Program, and the Water Protection Program. Failure to comply with these environmental laws and regulations may, in certain circumstances, result in the suspension or revocation of this Permit and may subject the Permit holder to civil and criminal liability.

This Permit for operational, closure, and corrective action activities is issued only to the Permittee named above. This Permit is issued for a period of ten years and expires at midnight on September 27, 2017. This Permit is subject to review and modification by the Department in accordance with Section 260.395.12, RSMo.

The provisions of this Permit are severable, and 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.

All citations to federal regulations throughout this Permit are for the sake of convenient reference. The federal regulations are adopted by reference in 10 CSR 25. In the instances where state regulations are more stringent, the appropriate state reference is given and shall apply.

Any appeals of the issuance or denial of the Permit or specific permit conditions based on state authority shall be filed in accordance with Sections 260.395.11 and 621.250, RSMo. The written petition requesting the appeal must be filed with the Administrative Hearing Commission within 30 days after the Permit is mailed or delivered, whichever is earlier. If the petition is sent by registered mail or certified mail, it will be considered filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be considered filed on the date it is received by the Administrative Hearing Commission.

40 CFR 264.101(a), as incorporated by reference in 10 CSR 25-7.264(1), requires all owners or operators of facilities seeking a permit for the treatment, storage, or disposal of hazardous waste to institute corrective action as necessary to protect human health and the environment for all releases of hazardous waste or hazardous constituents from any Solid Waste Management Unit, regardless of the time at which waste was placed in such unit.

40 CFR 264.101(b), as incorporated by reference in 10 CSR 25-7.264(1), requires that permits issued under the Hazardous Waste Management Law contain a schedule of compliance for corrective action (where corrective action cannot be completed prior to permit issuance) and assurances of financial responsibility for completing such corrective action.

40 CFR 264.101(c), as incorporated by reference in 10 CSR 25-7.264(1), requires that corrective action 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/operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such action.

Further, 40 CFR 264.101(c), as incorporated by reference in 10 CSR 25-7.264(1), stipulates that the owner/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 will be determined on a case-by-case basis. In addition, assurances of financial responsibility for completing such corrective action must be provided.

40 CFR 270.32(b)(2), as incorporated by reference in 10 CSR 25-7.270(1), and Section 260.395.12, RSMo, requires that each permit issued under that section contain terms and conditions as the Department determines necessary to protect human health and the environment.

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 had been previously adopted by the state. Thus, the corrective action requirements implemented by the state in lieu of EPA are incorporated into Part I of this Permit and are under state authority. Authority for other HSWA requirements for which the state is not authorized is retained by EPA and appears in Part II of this Permit.

## DEFINITIONS

For purposes of this Permit, terms used herein shall have the same meaning as those in the Resource Conservation and Recovery Act (RCRA) and 40 CFR Parts 124, 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, the Permit, or United States Environmental Protection Agency 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.

“Area of Concern (AOC)” means any area where an actual or potential release of hazardous waste or hazardous constituents which 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 area of concerns may be required pursuant to Section 260.395, RSMo, and 40 CFR 270.32(b)(2), as incorporated by reference in 10 CSR 25-7.270(1).

“Director” means the Director of the Missouri Department of Natural Resources.

“Facility” means (1) all contiguous land and structures, other appurtenances, and improvements on the land used for treating, storing, or disposing hazardous waste (2) all contiguous property under the control of the owner/operator, for the purpose of implementing corrective action under 40 CFR 264.101, as incorporated by reference in 10 CSR 25-7.264(1) and as specified in Corrective Action Condition I. through XIX. of this Permit.

“Hazardous constituent” means any chemical compound listed in 40 CFR Part 261 Appendix VIII. as incorporated in 10 CSR 25-4.261.

“Hazardous waste” means any waste, or combination of wastes as defined by or listed in 10 CSR 25-4, which because of its quantity, concentration, physical, chemical, or infectious characteristics may cause or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or which may pose a threat to the health of humans or other living organisms.

“Release” means any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of hazardous wastes (including hazardous constituents) into the environment (including the abandonment or discarding of 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 the management of solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released.

“Stabilization” means actions to control or abate threats to human health and/or the environment from releases at RCRA facilities and/or to prevent or minimize the further spread of contamination while long-term remedies are pursued.

SCHEDULE OF COMPLIANCE

- I. Within 60 calendar days after the effective date of this Permit, the Permittee shall:
- A. Submit to the Department two copies of the consolidated permit application as required by 10 CSR 25-7.270(2)(B)7. This consolidated permit application shall include the following:
    - 1. The “approved permit application,” as defined in the Introduction of this Permit;
    - 2. All changes made to the application as a result of the public comment period; and
    - 3. The Tank Assessment Report titled “Tank Anchorage Used Mineral Spirits Tank Safety-Kleen Corporation Branch St. Charles, Missouri” by Questec Corp, dated February 16, 1993.
  - B. Submit to the Department a certification by the Permittee that the Permittee has read the Permit in its entirety and understands all permit conditions contained herein.
  - C. Submit to the Department a check or money order payable to the State of Missouri for any outstanding engineering review costs.
  - D. Submit to the Department a check or money order payable to the State of Missouri for \$1000 for each year the Permit is to be in effect beyond the first year. This Permit is effective for ten years. Since the Permittee has submitted a \$1000 deposit with the Resource Conservation and Recovery Act Permit Application, the remaining balance to be submitted by the Permittee is calculated as

$$\text{Remaining balance} = \$9000.00 - \left( \left( \frac{\$1000.00}{365 \cdot \text{days}} \right)^x N_d \right)$$

where  $N_d$  equals the number of 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 is included with the final Permit. The check shall be directed to the Hazardous Waste Program, Permits Section.

- II. The Permittee shall submit, for the Department's approval within 60 days after the effective date of this Permit, an updated closure plan in accordance with 40 CFR 264.112, incorporated by reference in 10 CSR 25-7.264(2)(G) and associated closure cost estimate in accordance with 40 CFR 264.142. The Permittee shall submit within 60 days after the Department's approval of the updated closure plan and cost estimate, an updated financial assurance instrument in accordance with 40 CFR 264.143.
  
- III. The Permittee shall comply, as necessary, with all planned and contingent corrective action requirements of this Permit as specified in the Corrective Action Conditions section of this Permit.

SUBMITTAL OF REQUIRED INFORMATION

- I. The Permittee shall submit two copies of all reports, documents, or plans/specifications required under the terms of this Permit to:

Chief, Permits Section  
Missouri Department of Natural Resources  
Hazardous Waste Program  
1738 East Elm Street (lower level)  
P.O. Box 176  
Jefferson City, MO 65102-0176

- II. The Permittee shall submit one copy of all reports, documents, or plans/specifications required under the terms of this Permit to:

Chief, RCRA Corrective Action and Permits Branch  
U.S. Environmental Protection Agency, Region VII  
Air and Waste Management Division  
901 North 5<sup>th</sup> Street  
Kansas City, KS 66101

STANDARD PERMIT CONDITION

- I. The Permittee shall comply with the requirements set forth in the Missouri Hazardous Waste Management Law (and all standards, rules, and regulations adopted under this act), Section 260.350, et seq., RSMo, 40 CFR Part 264 Subpart H, 40 CFR 270.30, 40 CFR 270.40, 40 CFR 270.42, and 40 CFR 270.51, as incorporated and modified in 10 CSR 25-7 and 10 CSR 25-8.

#### GENERAL PERMIT CONDITIONS

I. The Permittee shall comply with the requirements set forth in 40 CFR Part 264 Subpart B, 40 CFR Part 264 Subpart C, 40 CFR Part 264 Subpart D, 40 CFR Part 264 Subpart E, 40 CFR Part 264 Subpart H, 40 CFR Part 268, and 40 CFR Part 270, as incorporated and modified in 10 CSR 25-7, and 10 CSR 25-8.

II. 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 under the Permittee's control, notify the Department's emergency response hotline at (573) 634-2436 and the National Response Center at 1-800-424-8802.

**SPECIAL PERMIT CONDITIONS**

The Department has established the following additional permit conditions for the Permittee’s hazardous waste facility.

**I. Storage in Containers [40 CFR Part 264 Subpart I]**

**A. Waste Identification**

The Permittee shall store in containers only the hazardous wastes identified in the approved permit application. All stored wastes are subject to the terms of this Permit.

**B. Waste Quantities**

Containerized wastes are stored in two areas: the metal Flammable Materials Storage Shelter and the Container Storage – Warehouse as illustrated in Figure 1. The maximum inventory of wastes that may be stored at any time for each area is defined below:

<b>Unit Name</b>	<b>Maximum Capacity in Gallons</b>
Flammable Materials Storage Shelter	2186
Container Storage – Warehouse	4280

For inspection purposes, the total volume stored in this unit may be calculated by:

<b>A</b>	Number of 5 gallon Containers
<b>B</b>	Number of 16 gallon Containers
<b>C</b>	Number of 30 gallon Containers
<b>D</b>	Number of 55 gallon Containers
<b>E</b>	Number of gallons Stored in Off-Sized Containers

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

**C. Condition of Containers [40 CFR 264.171]**

1. 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 from the container to a container that is in good condition or manage the waste in some other way that complies with the conditions of this Permit, such as over-packing.

2. During the entire on-site storage period, containers storing hazardous wastes shall be labeled and marked in accordance with the applicable, currently-effective U.S. Department of Transportation (USDOT) regulations regarding hazardous materials, 49 CFR Part 172.

D. Compatibility of Waste with Containers [40 CFR 264.172]

1. The Permittee shall use a container that is made of, or lined with, materials which 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. Only USDOT approved containers shall be used for storage of hazardous waste on site.

E. Management of Containers [40 CFR 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 for visual inspection of containers not containing free liquids where container size prohibits the inspection of center containers when palletized provided the outermost containers are clearly labeled as to the number of containers on the pallet.
3. Class 1 flammable liquids, as defined in the National Fire Protection Association's (NFPA) "Flammable and Combustible Liquids Code" (NFPA 30, as revised 1996) shall not be stacked over five feet in height. Class II combustible liquids, as defined in NFPA's "Flammable and Combustible Liquids Code" (NFPA 30, as revised 1996) shall not be stacked over ten feet in height.

4. The Permittee shall store containers in a manner that ensures physical stability and allows for visual inspection of each container. All container labels shall be visible from an aisle. All containers shall be accessible from an aisle. A minimum of two feet of aisle space shall be maintained between rows of adjacent containers to allow for inspection of each container. When containers are stored on pallets, a minimum of one-half foot of spacing shall be maintained between the pallets within the row.

F. Inspections [40 CFR 264.174]

At least weekly, 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.

G. Containment [40 CFR 264.175]

The Permittee shall design and operate containment systems for the container storage areas 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 all containers 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 must be prevented unless the collection system has sufficient excess capacity in addition to that required in Special Permit Condition I.G.3. to contain any run-on which might enter the system.
5. Spilled or leaked waste shall be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system.

H. Staging [10 CSR 25-7.264(2)(A)3.]

A container holding hazardous waste shall not be staged, stored, or managed in an area not specified in this Permit for a period that exceeds 24 hours.

I. Special Requirements for Ignitable or Reactive Waste [40 CFR 264.176 and 10 CSR 25-7.264(2)(I)]

The Permittee shall maintain the facility as illustrated in Appendix E of the approved permit application in a manner that complies with 10 CSR 25-7.264(2)(I)(5).

J. Special Requirements for Incompatible Waste [40 CFR 264.177]

1. The Permittee shall not place incompatible wastes or materials in the same container unless such action is in compliance with the requirements of 40 CFR 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 storage areas without providing separation sufficient to prevent the mixing of any spilled materials that may be incompatible.

K. Closure [10 CSR 25-7.264(2)(G)]

At closure, the Permittee shall remove all hazardous waste and hazardous waste residues from the container storage areas and containment systems and close in accordance with the closure plan in the approved permit application for the hazardous waste management facility. If the Permittee is unable to close according to the closure plan, then the Permittee must submit a permit modification to the Department in accordance with 40 CFR 270.42, to address any necessary changes to the approved closure plan.

II. Storage in Tanks [40 CFR Part 264 Subpart J]

A. Waste Identification.

The Permittee shall store only the hazardous wastes identified in the Part A Permit Application in the identified tanks. 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 tank as illustrated in Figure 1, unless as provided elsewhere in this Permit.

<b>Existing Tank(s)</b>		
<b>Tank ID</b>	<b>Design Capacity</b>	<b>Working Capacity</b>
Waste Mineral Spirits	15,000 gallons	14,250 gallons

C. Assessment of Existing Tank System's Integrity [40 CFR 264.191]

The Permittee's 15,000-gallon vertical above ground tank qualifies as an existing tank system. The Permittee has provided a written tank integrity assessment for the existing tanks as required by 40 CFR 264.191(a). The Permittee shall keep the written assessment on file at the facility.

D. Design and Installation of new Tank Systems or Components [40 CFR 264.192]

1. Prior to operating any new tank systems at the facility, the Permittee shall obtain and submit to the Director a written assessment reviewed and certified by an independent, qualified, professional engineer registered in the state of Missouri. This certification shall be in accordance with 40 CFR 270.11(d). This assessment shall include a final design set of certified construction drawings and shall show that the foundation, structural supports, seams, connections and pressure controls are adequately designed to ensure that the tank systems will not collapse, rupture, or fail. This assessment will be subject to regulatory review and approval process.
2. The Permittee shall ensure that proper handling procedures are adhered to in order to prevent damage to new tank systems during installation. Prior to placing new tank systems in use, an independent, qualified installation

inspector or an independent, qualified, professional engineer registered in the state of Missouri, either of whom is trained and experienced in the proper installation of 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 other inadequate construction/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 prior to 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 prior to the tank system being placed into use.
4. The Permittee shall ensure that 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 in accordance with the requirements of 40 CFR 264.192(b) through (f).

E. Containment and Detection of Releases [40 CFR 264.193]

1. In order to prevent the release of hazardous waste or hazardous constituents into the environment, the Permittee shall provide secondary containment that meets the requirements of 40 CFR 264.193 for all of its tank systems.
2. Secondary containment systems shall be:
  - a. Designed, installed and operated to prevent any migration of wastes or accumulated liquid 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 CFR 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 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 removal of the released waste or accumulated precipitation cannot be accomplished within 24 hours. If the collected material is a hazardous waste under 40 CFR 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 Water Protection Program. If the

collected material is released to the environment, it may be subject to the reporting requirements of 40 CFR Part 302. The Permittee will require an approval from Water Protection Program prior to discharge.

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

F. General Operating Requirements [40 CFR 264.194]

1. The Permittee shall not place hazardous wastes in a tank system if the hazardous wastes would cause the tank, its ancillary equipment, or the containment system to rupture, leak, corrode, or otherwise fail.
2. The Permittee shall use appropriate controls and practices to prevent spills and overflows from tank or containment systems. These shall include at a minimum:
  - a. Spill prevention controls such as, but not limited to, check valves and dry disconnect couplings; and
  - b. Overfill prevention controls such as, but not limited to, level sensing devices, high level alarms, automatic feed cutoffs, or a bypass to standby tanks, which limit tank working volumes.

G. Inspections [40 CFR 264.195]

The Permittee shall inspect all tanks and tank systems as specified in this Permit condition and the approved permit application. At a minimum, an independent,

qualified, professional engineer registered in the state of Missouri shall test all of the 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 12 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, and this information shall be recorded in the operating record.
2. The Permittee shall inspect at least once each operating day:
  - a. Aboveground portions of the tank systems to detect corrosion or releases of waste;
  - b. Data gathered from monitoring and leak detection equipment to ensure that 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 operating record of the facility. Any deterioration or malfunction found shall be remedied in accordance with 40 CFR 264.15(c). Also, 40 CFR 302.6 may require the Permittee to notify the National Response Center in the event of a release.

H. Response to Leaks or Spills and Disposition of Leaking or Unfit-for-use Tanks Systems [40 CFR 264.196 and 10 CSR 25-7.264(2)(J)4.]

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 or secondary containment system and inspect the system to determine the cause of the release.

2. Removal of waste from tank systems or secondary containment systems:
  - a. If the release was from the tank system, the Permittee shall, within 24 hours after detection of the leak, 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. Containment of Releases to the Environment

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. Those tank systems which are intended to be closed without removing the hazardous waste shall meet the requirements of 10 CSR 25-7.264(2)(N)1.A. and 40 CFR Part 264 Subpart N, as incorporated in 10 CSR 25-7.264. If the tank system cannot meet the requirements and contamination exists, the Permittee shall clean up contaminated residues and hazardous constituents to the greatest extent practical during closure.
4. Notification and Reports
    - a. Any release to the environment, except a release that is exempted under 40 CFR 264.196(d)(2), shall be reported to the Director within 24 hours of its detection. If the release has been reported pursuant to 40 CFR Part 302, that report will satisfy this requirement.
    - b. A leak or spill of hazardous waste is exempted from notification and reporting requirements if it is less than or equal to a quantity of one pound and is immediately contained and cleaned up.

- c. Within 30 days of detection of a release to the environment, the Permittee shall submit a report to the Director which 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 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 in accordance with Special Permit Condition II.K., unless the Permittee satisfies the following requirements:
    - a. If the cause of the release was a spill that has not damaged the integrity of the system, the Permittee may return the system to service as soon as the released waste is removed and repairs, if necessary, are made;
    - b. If the cause of the release was a leak from the primary tank system into the secondary containment system, the system shall be repaired prior to returning the tank system to service; and
    - c. If the source of the release was a leak into the environment from a tank system component without secondary containment, the Permittee shall comply with the provisions of 40 CFR 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, in accordance with 40 CFR 264.196(f).
- I. Special Requirements for Ignitable or Reactive Waste [40 CFR 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 CFR Part 261, and the Permittee complies with 40 CFR 264.17(b);

- 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 the maintenance of 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 NFPA's "Flammable and Combustible Liquids Code," (1977 or 1981, incorporated by reference in 40 CFR 260.11).

J. Special Requirements for Incompatible Wastes [40 CFR 264.199]

1. The Permittee shall not place incompatible wastes or materials in the same tank system unless such action is in compliance with the requirements of 40 CFR 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 CFR 264.17(b).

K. Closure and Post-Closure Care [40 CFR 264.197 and 10 CSR 25-7.264(2)(J)5.]

At closure of a tank system, 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 shall close in accordance with the Closure Plan in the approved permit application. If the Permittee is unable to close according to the Closure Plan, then the Permittee must submit a permit modification to the Department in accordance with 40 CFR 270.42 that addresses any necessary changes to the approved closure plan. The Closure Plan, closure activities, cost estimates for closure, and financial responsibility for tank systems shall meet all of the requirements specified in 40 CFR Part 264 Subparts G and H, 10 CSR 25-7.264(2)(G) and 10 CSR 25-7.264(2)(H).

III. Waste Minimization

Pursuant to 40 CFR 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 that he 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 the present and future threat to human health and the environment.

IV. Seismic Evaluation Requirements [10 CSR 25-7.270(2)(B)4.]

The Permittee has demonstrated compliance with the seismic requirements as certified by a qualified independent professional engineer registered in the state of Missouri. The Permittee shall maintain the seismic evaluation in the operating record.

V. Air Emission Standards for Tanks, Surface Impoundments, and Containers  
[10 CSR 25-7.264(1)]

- A. The Permittee shall comply with the applicable requirements of 40 CFR Part 264 Subpart BB, as amended December 8, 1997, for all units identified in the approved permit application.
- B. The Permittee shall comply with the applicable requirements of 40 CFR Part 264 Subpart CC, as amended December 8, 1997, for all units identified.

**Units Subject to Subpart CC Standards**

<b>Unit Identification</b>	<b>Unit Type</b>	<b>Subpart CC Control Option</b>
Waste Mineral Spirits Tank	15,000 gallon tank	40 CFR 264.1084
Container Storage – Warehouse	Container Storage	40 CFR 264.1086
Flammable Materials Storage Shelter	Container Storage	40 CFR 264.1086

VI. 100-Year Floodplain Requirements [40 CFR 264.18(b)]

- A. The Permittee has submitted information as required in 40 CFR 270.14(b)(iii), which identifies the facility as not being located in the 100-year floodplain.

## CORRECTIVE ACTION CONDITIONS

### I. Identification of Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) [40 CFR 264.101]

- A. EPA conducted a Priority Initiative/Preliminary Assessment, referred to hereafter as the RCRA Facility Assessment (RFA), to identify and gather information on releases or potential releases from any SWMUs/AOCs at the facility. The final RFA report, dated March 17, 1992, identified a potential release point and/or AOC in the area of the former underground storage tank (UST) described below as AOC #2.
- B. The AOC identified for further action in the RFA was the Former Underground Storage Tanks (USTs) – AOC #2. The former UST area which is believed to have had two 12,000 gallon storage tanks (one for product and one for spent solvents), along with one 1000 gallon settling tank that was designed to overflow into the tank for spent solvents. The tanks were removed sometime in 1984. A Land Use Restriction Notice and Plat Survey was put in place on August 25, 1994.

The following SWMUs and AOCs were documented, but not noted for further action in the RFA:

1. Container Storage Warehouse – SWMU #1

This SWMU is an “L” shaped area designed to store containerized waste within the warehouse. It has a concrete floor and is provided secondary containment by concrete curbing encompassing the entire storage area with the exception of the area immediately in front of the garage door, which is addressed with a concrete trench. Wastes managed in this unit are described in Special Permit Condition I.A. of this Permit. Use began in 1975. There are no documented releases from this unit.

2. Return and Fill Station – SWMU #2

The solvent return and fill station is used to collect fresh and spent solvents that are accumulated in the aboveground solvent storage tanks in SWMU #3. Two interlocking metal pans provide secondary containment for this unit. Use began in 1984. There are no documented releases from this unit. Wastes managed in this unit are described in Special Permit Condition II.B. of this Permit.

3. Aboveground Solvent Storage Tanks (Tank Farm South) – SWMU #3

This tank farm has a 15,000-gallon containing spent mineral spirits, and one 15,000-gallon tank and one 8,000-gallon tank containing product. The spent solvents are accumulated in the tank via the return and fill station and aboveground piping. Secondary containment is provided by a concrete slab and dike system. Wastes managed in the spent mineral spirits tank are described in Special Permit Condition II.B. of this Permit. Use began in 1984. There are no documented releases from this unit.

4. Aboveground Solvent Storage Tanks (Tank Farm West) – SWMU #4

This tank farm consists of four 20,000-gallon tanks that are used to store waste oil. Secondary containment is provided by a concrete slab and dike system. Use began in 1986. There are no documented releases from this unit.

5. Flammable Materials Storage Shelter – SWMU #5

This unit is a Class 1B flammable waste storage shelter. Secondary containment is provided by six interlocking metal pans. Wastes managed in this unit are described in Special Permit Condition I.B. of this Permit. Use began in 1986. There are no documented releases from this unit.

6. Facility Storm Drainage AOC #1

This was designated an AOC due to the inherent sloping nature of the ground surface underlying the facility and the proximity of a stream downgradient of the facility, with no appurtenances for containment or diversion.

- C. On March 11, 1993, the Department issued a Missouri Hazardous Waste Management Facility Storage Part I Permit to the Permittee governing storage of hazardous waste at the St. Charles facility. EPA, Region VII concurrently issued a HSWA Part II Permit to the Permittee governing corrective action at the Safety-Kleen St. Charles facility. The corrective action requirements formerly in the EPA HSWA Part II Permit are now contained herein as Missouri is authorized to administer the corrective action program.
- D. The AOC identified for further action in the RFA listed in the 1993 HSWA Part II Permit and was the former USTs (AOC 2). A RCRA Facility Sampling (RFS)

was performed by the Permittee pursuant to the 1993 HSWA Part II Permit to further assess the presence/absence of releases to the environment from this AOC. Limited soil and groundwater impacts were detected at AOC 2 during this investigation. In March 1998, semiannual monitoring was proposed to demonstrate the effectiveness and/or potential for the occurrence of natural attenuation. It was demonstrated that natural attenuation was occurring; however, in an effort to speed up the process, a pilot test of injection of Hydrogen Release Compound (HRC) was conducted. This pilot test produced positive results and full-scale injection occurred in May 2006. A Post-Injection Remedial Action Report was submitted June 27, 2006. Initial results appear to be positive, but more monitoring events are needed to determine if the HRC can be utilized as a final remedy. Selection, approval, and implementation of the final remedy will occur pursuant to this Permit.

- E. The only known historical contamination source area present at the facility is associated with the former USTs (AOC 2). The general location of the AOC and former USTs is illustrated in Figure 1. In the event any new information becomes available indicating that human health or the environment may be adversely impacted, the Permittee may be required to re-evaluate any known SWMUs or AOCs to assess the need for further corrective action. This evaluation may also be required for any newly identified SWMUs/AOCs and/or any release(s) from previously-identified SWMUs/AOCs, including off-site release(s), as specified in Corrective Action Conditions V. and VI.

## II. Introduction

The Permittee shall comply with all groundwater monitoring and corrective action requirements contained in this Permit and 40 CFR Part 264.101, as incorporated by reference in 10 CSR 25-7.264(1).

## III. Groundwater Monitoring and Corrective Action Program – Former Underground Storage Tanks [40 CFR 264.101]

- A. Groundwater Protection Standard (GPS), Hazardous Constituents, and Concentration Limits

The GPS establishes the maximum concentration limits for hazardous constituents in the groundwater throughout the plume of contamination. The hazardous constituents, maximum concentration limits, and maximum analytical detection limits specified in Table I of this Permit constitute the GPS for the Former Underground Storage Tanks. The listed hazardous constituents have either been

detected in the groundwater beneath and beyond the subject units and/or are reasonably expected to be in or derived from materials managed in the Former Underground Storage Tanks.

1. The maximum concentration limits for the GPS hazardous constituents listed on Table I are based on protection of human health and the environment and were derived from Federal Drinking Water Maximum Contaminant Levels (MCLs). In instances where an MCL was not available for a constituent, EPA Region 9 Preliminary Remediation Goals (PRGs) for tap water were used and are identified with an asterisk.

The allowable GPS maximum detection limit shall never be greater than the GPS maximum concentration limit. If the GPS maximum detection limit for specific GPS parameters cannot be achieved due to matrix interferences or other reasonable analytical limitations (provided that appropriate supporting documentation is provided), the affected sample and associated chemical analysis will be exempted from this requirement.

**Table I – Groundwater Protection Standard**

<b>Hazardous Constituent</b>	<b>Maximum Concentration Limit (ug/l)</b>	<b>Maximum Detection Limit (ug/l)*</b>
Chlorobenzene	100	5
1,2-Dichlorobenzene	600	5
1,3-Dichlorobenzene	180**	5
1,4-Dichlorobenzene	75	5
1,1-Dichloroethane	810**	5
Cis-1,2-Dichloroethene	70	5
Trans-1,2-	100	5
Trichloroethene	5	5
Ethylbenzene	700	5
Vinyl Chloride	2	2

\*The lower of Practical Quantitation Limits (PQLs) contained in the latest version of the EPA publication entitled: Test Methods for Evaluating Solid Waste – Physical/Chemical Methods (SW-846) or method specific practical quantitation limits routinely achieved by the Permittee’s laboratory.

\*\*Denotes limits derived from risk-based concentration values for tap water as contained on the USEPA, Region IX. Preliminary Remediation Goals table dated October 2004.

2. The Permittee may make a demonstration to the Department, at any time during the term of this Permit, for establishment of Alternate Concentration Limits (ACLs) in lieu of the GPS maximum concentration limits contained herein. Any such demonstration shall ensure that any and all ACLs proposed in lieu of the GPS maximum concentration limits are protective of human health and the environment in accordance with the requirements of 40 CFR 264.94(b). In proposing an ACL(s), the Permittee shall consider and formally address these factors listed in 40 CFR 264.94(b)(1) and (2). Any ACLs proposed to the Department shall require a permit modification in accordance with 40 CFR 270.42, prior to final approval.

Any future addition of hazardous constituents to the GPS shall require a Class 1 permit modification in accordance with 40 CFR 270.42.

B. Groundwater Remediation Objective

The groundwater remediation objective at the St. Charles facility shall be to achieve the GPS maximum concentration limits throughout the plume of groundwater contamination.

C. Groundwater Remediation Demonstration Period

The groundwater remediation demonstration period for the former underground tank area is the length of time necessary to demonstrate, through groundwater monitoring, that the GPS maximum concentration limits have been achieved. The Demonstration Period shall be proposed by the Permittee in the CMS Report required by Corrective Action Condition XI and shall be formally established as part of the final remedy selection and approval process.

D. General Groundwater Monitoring Requirements

The Permittee shall comply with the following general groundwater monitoring requirements.

1. The Permittee's groundwater monitoring system shall be designed, installed, operated, and maintained from the effective date of this Permit through the groundwater remediation demonstration period in a manner that ensures:

- a. Detection and/or delineation of the horizontal and vertical extent of groundwater contamination throughout the plume (including beyond the facility property boundary);
  - b. Determination of representative concentrations of hazardous constituents and contaminant plume indicator parameters in the groundwater; and
  - c. The Permittee's ability to determine the effectiveness of any groundwater corrective action activities in terms of contaminant attenuation, destruction, removal and/or containment.
2. 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 boundary. If, at any time during the groundwater remediation demonstration period, the Permittee or the Department determines that the existing monitoring system fails to define the horizontal and vertical extent of groundwater contamination, the Permittee shall submit, within 30 days of such determination by the Permittee or written notification by the Department, a proposal for the installation of additional monitoring wells to define such extent.

At such time as the Department determines that the Permittee has adequately redefined the horizontal and/or vertical extent of groundwater contamination, the wells defining such extent shall be incorporated into and designated for continued monitoring in the Permittee's Groundwater Sampling and Analysis Plan (SAP). The Department will notify the Permittee in writing regarding this determination. Within thirty (30) days of this notification, the Permittee shall submit appropriate SAP revisions to the Department's Hazardous Waste Program (HWP).

3. Any new groundwater monitoring well(s) installed by the Permittee to meet the requirements of this Permit shall be designed and constructed in accordance with the requirements of 40 CFR 264.97, 10 CSR 23 Chapter 4 – Monitoring Well Construction Code of the Missouri Well Construction Rules and/or well-specific plans and specifications approved by the Department.
- a. The Permittee shall submit to the Department's HWP a copy of the well certification report form and the resulting certification

acceptance required by 10 CSR 23-4.020 for any new monitoring wells installed pursuant to this Permit. This information shall be reported as part of the Groundwater Corrective Action Reports required by Corrective Action Condition III.F.

4. Plugging and abandonment of any groundwater monitoring well(s) operated by the Permittee pursuant to the requirements of this Permit shall meet the requirements of 10 CSR 23-4.080.
  - a. The Permittee shall submit to the Department's HWP a copy of the well registration report form and resulting registration acceptance required by 10 CSR 23-4.080 for any monitoring wells plugged pursuant to this Permit. This information shall be reported as part of the Groundwater Corrective Action Reports required by Corrective Action Condition III.F.
  - b. At such time as the Permittee's well registration has been accepted by the Department's Division of Geology and Land Survey (DGLS), the plugged wells shall be removed from the Permittee's Groundwater SAP. Within thirty (30) days of DGLS's registration acceptance, the Permittee shall submit appropriate SAP revisions to the Department's HWP.
5. The Permittee shall contact the Department at least five working days prior to conducting any field work associated with the construction or modification of the groundwater monitoring system required by this Permit. The Department shall then have the option of observing any portion of the system's construction or modification.
6. The Permittee shall submit a revised Groundwater SAP as part of the Long-Term Operation, Maintenance, and Monitoring Plan specified in Corrective Action Condition XIV of this Permit. The revised Groundwater SAP shall be submitted within sixty (60) days of the effective date of this Permit and shall incorporate the groundwater-related requirements of this Permit. All SAP procedures and techniques used in groundwater sampling, analysis, and measurement of groundwater-related parameters shall be designed to meet the requirements of this Permit. The Permittee's sampling, analysis, and measurement protocols shall ensure the representative nature of all analysis and measurement results.

7. A monitoring well inspection and maintenance program shall be implemented from the effective date of this Permit through the groundwater remediation demonstration period. This program shall be designed to ensure the structural integrity of all monitoring well installations during this period. The Permittee's revised SAP shall address the details of this program in accordance with the following requirements.
  - a. Surface well integrity inspections shall be performed at the time of each sampling event and shall be documented on an 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., collection or ponding of water, ground subsidence, etc.).
  - b. Subsurface well integrity inspections shall be performed annually in all wells, in accordance with the provisions contained in the Permittee's SAP, and shall be documented on a well inspection log sheet. Subsurface well integrity inspections may consist of a combination of 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. The Permittee's SAP shall specify performance of an annual wellbore siltation evaluation to assess downwell siltation and well screen occlusion in all monitoring wells. This requirement shall be designed to ensure the representative nature of the Permittee's groundwater sample analysis and field measurement results through minimization of sampling and measurement interferences (e.g., turbidity, excessive well screen occlusion, etc.).

The Permittee's 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 shall be redeveloped prior to the next scheduled sampling event.

- d. The Permittee shall perform well-specific surface and subsurface integrity inspections within seven days following any contact of wells by floodwaters. Monitoring well repairs shall be undertaken within seven (7) days of identification of any surface or subsurface well integrity problem. If adverse weather or site conditions preclude the Permittee from gaining access to and/or repairing flood-impacted monitoring wells within the noted periods, then the Permittee shall take appropriate action with respect to this requirement as soon as practicable. Written justification for any delay, completed well inspection log sheets, a narrative description of any well repairs and before/after photographic repair documentation (in the case of visible surface well repairs) shall be provided to the Department as part of the Groundwater Corrective Action Reports required by Corrective Action Condition III.F.

E. Corrective Action Program [40 CFR 264.101]

The former underground storage area is subject to the corrective action program requirements of 40 CFR 264.101, as incorporated by reference in 10 CSR 25-7.264, and this Permit until such time as these requirements have been satisfied.

1. The Permittee's corrective action program for the former underground tank storage area shall consist of groundwater monitoring in accordance with this Permit, submittal of a CMS Workplan, and preparation of a CMS Report proposing a final remedy.
2. The Permittee shall perform groundwater sampling/analysis and field measurement of groundwater-related parameters presented in Table II.
  - a. Sampling and analysis in accordance with this schedule shall begin during the next regularly scheduled sampling event following approval of the revised Groundwater SAP required by Corrective Action Condition III.D.6. Given the potential lag time between the effective date of this Permit and approval of the revised SAP required by Corrective Action Condition III.D.6., the Permittee

- shall continue sampling and analysis in accordance with the latest version of the approved Groundwater SAP until such time as the revised SAP is approved.
- b. Sampling and analysis of groundwater from new wells required by this Permit shall be performed no later than the next regularly scheduled sampling event following their installation.
  - c. Installation of additional monitoring wells during the groundwater remediation demonstration period may be necessary to meet the requirements of this Permit. If any such wells are installed, they may be subject to the monitoring requirements contained in Table II.
  - d. Any future changes to the list of monitoring wells established in the Permittee's revised Groundwater SAP shall be approved in writing by the Department. Within 60 days of the effective date of this Permit, the Permittee shall submit, for departmental approval, a revised Groundwater SAP to incorporate the requirements of this Permit and any other changes deemed necessary by the Permittee.
3. Only single sample analyses (as opposed to replicates) are required for the parameters listed in Table II, with the exception of duplicate samples taken for Quality Assurance/Quality Control (QA/QC) purposes.
  4. Field parameter values measured and reported by the Permittee shall be representative of stabilized well conditions.
    - a. Downwell measurement of non-aqueous phase liquid (NAPL) thickness, static water level, and total well depth shall be taken prior to well purging.
    - b. Specific conductance, pH, and temperature measurements reported to the Department shall be those taken immediately following adequate well purging. Additional field parameter measurements such as those taken to verify the adequacy of well purging shall be recorded in the field logbook.
    - c. If hazardous constituents and/or contamination indicator parameters are identified in the groundwater, which are not

currently specified in the GPS, the Permittee may resample the groundwater to confirm this finding. If the Permittee’s subsequent groundwater analyses confirm the presence of additional hazardous constituents or contamination indicator parameters, then the Permittee shall propose a Class 1 permit modification in accordance with 40 CFR 270.42 to add the confirmed hazardous constituents or contamination indicator parameters to the GPS (Table I) and the monitoring program specified in Table II.

**Table II – Groundwater Corrective Action Monitoring, Sampling, Analysis, and Parameter Measurement Schedule**

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

(1) Current version of EPA SW-846 Method 8260 or equivalent.

(2) Potentiometric measurements shall be obtained at the time of each regularly scheduled sampling event from all monitoring wells at the facility including those that are not scheduled for sampling.

\* HC = Hazardous Constituent      FM = Field Measurement

\*\* Static groundwater elevations and total well depth measurements shall be made prior to well purging.

F. Groundwater Corrective Action Reporting Requirements.

The Permittee shall submit to the Department on an annual basis for the preceding calendar year (i.e., January through December) Groundwater Corrective Action Reports. The Permittee shall submit these Groundwater Corrective Action Reports to the Department by March 1 of each calendar year for the preceding

calendar year. These Groundwater Corrective Action Reports shall include all raw analytical data from the Permittee's 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, and other relevant groundwater-related information, as appropriate. These reports shall also discuss any exceedances of the GPS maximum concentration limits.

In addition to the general reporting elements outlined above, the Permittee's Annual Groundwater Corrective Action Reports shall contain a comprehensive evaluation, of the facility-wide groundwater monitoring program for the preceding calendar year as described below.

1. The Annual Groundwater Corrective Action Reports shall contain a narrative discussion of the nature and scope of the Permittee's facility-wide groundwater monitoring program including conclusions concerning the overall adequacy of the program as related to its intended purpose. Any conclusions concerning inadequacies in the Permittee's groundwater monitoring program shall be accompanied by a discussion of specific proposed action(s) to address the inadequacies. Proposed action(s) to address any inadequacies identified in the Annual Groundwater Corrective Action Reports shall be reviewed and approved in accordance with the procedures set forth in Corrective Action Condition XVI. and/or as otherwise specified in this Permit.
2. The Permittee's Annual Groundwater Corrective Action Reports shall comprehensively address all of the technical requirements of this Permit. The Permittee shall summarize relevant groundwater monitoring information and shall 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.
3. The Permittee's Annual Groundwater Corrective Action Reports shall evaluate the effectiveness of the groundwater corrective action program, including, but not limited to, the following:

- a. 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 attenuation, destruction, removal, containment or control of the groundwater contaminant plume;
  - b. The horizontal and vertical extent and concentrations of hazardous constituents (Table I) in groundwater throughout the contaminant plume(s) as evaluated from the data obtained through the Permittee's groundwater monitoring program;
  - c. Any surface and/or subsurface well integrity problems and their potential or actual influence on the groundwater data or efficacy of the groundwater corrective action program;
  - d. The Permittee shall evaluate contaminant concentration information in selected wells as a means to estimate the quantity/mass of contaminants being addressed by natural attenuation processes;
4. The Permittee shall submit to the Department in the Annual Groundwater Corrective Action Reports 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.
  5. The Department will review the Annual Groundwater Corrective Action Report and will submit comments to the Permittee, as appropriate.

IV. Identification of Additional SWMUs and AOCs [40 CFR 264.101]

EPA conducted a RCRA Facility Assessment (RFA) to identify and gather information on releases or potential releases from any SWMUs (including the former underground storage area) and AOCs at the facility. The final RFA report, dated March 17, 1992, identified one AOC that required further investigation. On March 18, 1993, the Department issued a Missouri Hazardous Waste Management Facility Part I Permit to the Permittee governing storage of hazardous waste at the St. Charles facility. EPA Region VII concurrently issued a HSWA Part II Permit to the Permittee governing corrective action at the St. Charles facility. The corrective action requirements formerly in the EPA HSWA Part II Permit are now contained herein as Missouri is now authorized to administer the corrective action program.

The AOC identified for further action in the RFA was listed in the 1993 Part II Permit along with the former underground storage tank area (AOC 2). Figure 1 details the AOC location identified in the RFA. A RCRA Facility Sampling (RFS) was performed by the Permittee pursuant to the 1993 Part II Permit to further assess the presence/absence of releases to the environment from this AOC. Low levels of VOCs were detected during the RFS sampling activities. During June 2004, an interim action pilot test of Hydrogen Release Compound (HRC) injection was conducted to potentially help the natural breakdown of the VOCs. Based on the pilot test results, a full-scale HRC injection was performed in May 2006.

V. Notification Requirements for, and Assessment of, Newly Identified SWMUs and AOCs

- A. The Permittee shall notify the Department and EPA in writing of any SWMU(s) or AOC(s) identified subsequent to the issuance of this Permit no later than fifteen (15) days after discovery.
- B. The Department may require a SWMU/AOC Assessment Work Plan for conducting an investigation of any newly identified SWMU(s) or AOC(s). Within thirty (30) days after receipt of the Department's request for a SWMU/AOC Assessment Work Plan, the Permittee shall submit a SWMU/AOC Assessment Work Plan which shall include a discussion of past waste management practices at the unit, as well as a SAP for groundwater, land surface and subsurface strata, surface water, and/or air, as necessary to determine whether a release of hazardous waste, including hazardous constituents, from such unit(s) has occurred, or is occurring. The SAP shall be capable of yielding representative samples and must include monitoring parameters sufficient to assess the release of hazardous waste and/or hazardous constituents from the newly identified SWMU(s)/AOC(s) to the environment. The SWMU/AOC Assessment Work Plan shall specify any data to be collected to provide for a complete SWMU/AOC Assessment Report, as specified below. The SWMU/AOC Assessment Work Plan shall include a schedule for completing the work specified in the plan.
- C. The SWMU/AOC Assessment Work Plan will be reviewed in accordance with the procedures set forth in Review and Approval Procedures, Corrective Action Condition XIX. Upon approval thereof by the Department, the Permittee shall implement the plan in accordance with the schedule contained in the plan.
- D. The Permittee shall submit a SWMU/AOC Assessment Report to the Department and EPA 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 from implementation of 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/AOC:

1. The location of the newly identified SWMU/AOC in relation to other SWMUs/AOCs;
  2. The type and function of the unit;
  3. The general dimensions, capacities, and structural description of the unit;
  4. The period during which the unit was operated;
  5. The physical and chemical properties of all wastes that have been or are being managed at the SWMU/AOC, to the extent available;
  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/AOC;
  9. Amounts of waste handled; and
  10. Drainage areas and/or drainage patterns near the SWMU(s)/AOC(s).
- E. The Department will review the SWMU/AOC Assessment Report in accordance with the procedures set forth in Review and Approval Procedures, Corrective Action Condition XIX. Based on the findings of this report, the Department will determine the need for further investigations, including interim/stabilization measures and/or a RCRA Facility Investigation (RFI), at specific unit(s) identified in the SWMU/AOC Assessment Report.
- F. If the Department determines that additional investigations are needed, the Department may require the Permittee to prepare and submit for approval a work plan for such investigations. The Department will review this work plan for additional investigations in accordance with the procedures set forth in Review and Approval Procedures, Corrective Action Condition XIX. Upon approval thereof by the Department, the Permittee shall implement the plan in accordance with the schedule contained in the plan.

VI. Notification Requirements for, and Assessment of, Newly Identified Releases From Previously Identified SWMUs and AOCs

- A. The Permittee shall notify the Department and EPA, in writing, of any release(s) of hazardous waste, including hazardous constituents, from previously-identified SWMUs and AOCs discovered during the course of groundwater monitoring, field investigation, environmental auditing, or other activities undertaken after issuance of this Permit, no later than fifteen (15) days after discovery.
- B. The Department may require a Newly Identified Release Work Plan for conducting an investigation of the newly identified release(s). Within thirty (30) days after receipt of notice that the Department requires a Newly Identified Release Work Plan, the Permittee shall submit a Newly Identified Release Work Plan which shall include a discussion of the waste/chemical management practices related to the release; a SAP for groundwater, land surface and subsurface strata, surface water or air, as necessary to determine whether the release poses a threat to human health or the environment; and a proposed schedule for implementation and completion of the Newly Identified Release Work Plan. The SAP shall be capable of yielding representative samples and must include monitoring parameters sufficient to assess the release of hazardous waste and/or hazardous constituents to the environment. The Newly Identified Release Work Plan shall specify any data to be collected to provide for a complete Newly Identified Release Report, as specified below. The Newly Identified Release Work Plan shall include a schedule for completing the work specified in the plan.
- C. The Newly Identified Release Work Plan will be reviewed and approved in accordance with the procedures set forth in Review and Approval Procedures, Corrective Action Condition XIX. Upon approval thereof by the Department, the Permittee shall implement the plan in accordance with the schedule contained in the plan.
- D. The Permittee shall submit a Newly Identified Release Report to the Department and EPA 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 during implementation of 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 any other SWMU(s)/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 comprise 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; and
  9. Drainage areas and/or drainage patterns near and at the location of the release.
- E. The Newly-Identified Release Report will be reviewed and approved in accordance with Review and Approval Procedures, Corrective Action Permit Condition XIX. Based on the findings of the report and any other available information, the Department will determine the need for further investigation, including interim/stabilization measures and/or a RCRA Facility Investigation (RFI), at specific unit(s) where new releases were identified.
- F. If the Department determines that additional investigations are needed, the Department may require the Permittee to submit a Work Plan for such investigations. This Work Plan will be reviewed and approved in accordance with the procedures set forth in Review and Approval Procedures, Corrective Action Condition XIX. Upon approval thereof by the Department, the Permittee shall implement the plan in accordance with the schedule contained in the plan.

VII. Interim/Stabilization Measures

- A. If the Permittee becomes aware of any additional release or potential release that may require interim/stabilization measures to protect human health or the environment, the Permittee shall notify the Department and EPA within twenty-four (24) hours of the time the Permittee becomes aware or should have become aware of the situation.

- B. If, during the course of any activity initiated under this Permit, the Permittee or the Department determines that a release or potential release of hazardous waste, including hazardous constituents, poses a threat to human health or the environment, the Department may require interim/stabilization measures to slow or stop the further spread of contamination until final corrective action measures can be implemented. The Department will determine the specific action(s) that must be taken to implement interim/stabilization measures, including potential permit modifications and the schedule for implementing the interim/stabilization requirements and will inform the Permittee of decisions regarding the action(s) in writing. This requirement shall not preclude the Permittee from responding to an emergency situation without direction of the Department.
- C. If, at any time, the Permittee determines or should have known that the interim/stabilization measures program is not effectively limiting or stopping the further spread of contamination, the Permittee shall notify the Department in writing no later than ten (10) days after such a determination is made. The Department may require that the interim/stabilization measures program be revised to make it effective in limiting or stopping the spread of contamination, or that final corrective action measures are required to remediate the contaminated media.
- D. In cases where releases present minimal exposure concerns and/or the remedial solution is straightforward, the Permittee may propose interim/stabilization measures for review and approval by the Department. These interim/stabilization measures shall be consistent with and may supplement and/or satisfy the requirements for a final remedy(s) in specific areas.
- E. ISM proposals will be reviewed and approved in accordance with Review and Approval Procedures, Corrective Action Condition XIX. Upon approval thereof by the Department, the Permittee shall implement the ISM in accordance with the schedule contained in the proposal.

VIII. RCRA Facility Investigation (RFI) Work Plan

- A. The Permittee previously prepared a RCRA Facility Sampling (RFS) Work Plan, equivalent to and hereafter referred to as an RFI Work Plan to characterize releases at the facility from the former underground storage tanks. The RFI Work Plan was reviewed by the Department and EPA, and was approved by EPA on November 1, 1993.

If the Department determines that additional investigations are needed at the facility pursuant to Corrective Action Condition V. or VI. of this Permit, the Department may require the Permittee to prepare and submit for approval a RFI Work Plan. The Permittee shall submit a RFI Work Plan to the Department and EPA within sixty (60) days of the notification of the requirement to prepare a RFI Work Plan. The RFI Work Plan shall be designed to investigate releases of hazardous waste, including hazardous constituents, to all appropriate media of concern including soil, sediment, bedrock, groundwater, surface water, and/or air. In order to substantiate future corrective action decisions, the RFI Work Plan shall contain provisions which are sufficient to meet the following objectives and shall contain a schedule for implementation of the work plan which is predicated on the date of Departmental approval of the plan:

1. Full characterization of the nature, vertical and horizontal extent, and rate of migration of releases of hazardous waste and/or hazardous constituents from SWMUs and AOCs, or groups of SWMUs at the facility and the actual or potential receptors of such releases; and
  2. Collection of any other pertinent data that may be utilized to substantiate future corrective action decisions.
- B. The RFI Work Plan shall be appropriate for site-specific conditions and shall be consistent with and address all applicable investigation elements described in the most recent version (currently May 1989) of the EPA guidance document entitled, RCRA Facility Investigation Guidance; EPA 530/SW-89-031. At a minimum, the RFI Work Plan shall detail all proposed activities and procedures to be conducted at the facility, a description of current conditions, the schedule for implementing and completing such investigations, and for submission of reports (including the final RFI Report), the qualifications of personnel performing or directing the investigations, including contractor personnel, and the overall management of the RFI.
- C. The RFI Work Plan shall include a Quality Assurance Project Plan (QAPP). The QAPP shall present the policies, organization, objectives, functional activities, and specific quality assurance and quality control activities designed to achieve the data quality goals of the RFI. It shall include the RFI objectives, sampling procedures, analytical methods, field and laboratory quality control samples, chain-of-custody procedures and data review, validation and reporting procedures.

- D. The Permittee shall prepare and maintain a Health and Safety Plan during the project that assures the RFI activities are conducted in a manner that is protective of human health and the environment.
- E. Due to the complexity of defining the extent of contamination, the Permittee may be required to use a phased approach that requires the submittal of supplemental RFI Work Plans.
- F. The Department will review and approve the RFI Work Plan(s) in accordance with the procedures set forth in Review and Approval Procedures, Corrective Action Condition XIX. Upon approval thereof by the Department, the Permittee shall implement the plan in accordance with the schedule contained in the plan.

IX. RCRA Facility Investigation (RFI) Report

- A. The Permittee previously prepared a RFS Report, equivalent to and hereafter referred to as RFI Report to characterize releases at the facility from the underground storage tanks. The RFI Report was reviewed by the Department and EPA and was approved by EPA on May 12, 1994.
- B. The Permittee shall submit any additional RFI Report required pursuant to this Permit to the Department and EPA according to the schedule contained in the approved RFI Work Plan set forth in Corrective Action Condition VIII. The RFI Report shall present all information gathered under the approved RFI Work Plan along with a brief facility description and map showing the property boundary and all SWMUs/AOCs. The RFI Report must contain adequate information to support further corrective action decisions at the facility. Information contained in the RFI Report shall be presented in a format that is consistent with Section 5 of the most recent version (currently May 1989) of the EPA Publication entitled, RCRA Facility Investigation Guidance; EPA 530/SW-89-031.
- C. The RFI Report shall provide an interpretation of the RFI information gathered, supported with documentation, to enable the Department to determine whether Interim/Stabilization measures and/or a Corrective Measures Study may be necessary.

The RFI Report shall describe the procedures, methods, and results of all investigations of SWMUs/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 movement of releases from SWMUs/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/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/AOCs;
5. Assessment of potential risks to the human and environmental receptors exposed to release(s) from SWMUs/AOCs;
6. Extrapolations of future contaminant movement 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 the interpretation of data;
9. Results of any interim/stabilization measures previously implemented; and
10. Evaluation of data quality which may affect the nature and scope of a Corrective Measure Study as well as the evaluation of corrective measures

alternatives thereunder (e.g., identification of any potential bias in the RFI data, and documentation of its precision, accuracy, representativeness, completeness, comparability, validation, etc.)

- D. The Department will review the RFI Report in accordance with the procedures set forth in Review and Approval Procedures, Corrective Action Condition XIX. After review of the RFI Report, if the Department determines that the objectives of the RFI have not been met, the Department may require additional investigation. Upon approval of the RFI Report by the Department, the Department shall advise the Permittee as to the next step in the corrective action process that may include submittal of a Corrective Measures Study Work Plan pursuant to Corrective Action Condition X.

X. Corrective Measures Study (CMS) Work Plan

- A. An interim corrective measure consisting of a pilot test of injection of Hydrogen Release Compound (HRC) occurred in June 2004, with a follow up full scale HRC injection during May 2006. Within one-hundred twenty (120) days of the effective date of this Permit, the Permittee shall submit a CMS Work Plan to evaluate the effectiveness of the HRC injection for the remediation of the former underground storage tank area at the facility.
- B. The Permittee shall evaluate the HRC injection data collected to date, as part of the CMS, to determine if this technology is capable of achieving the GPS maximum concentration limits contained in Table I in a reasonable time frame or if additional corrective measures may be needed.

The CMS shall also include 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/AOCs;

- C. If the Department determines that there has been a release of hazardous waste and/or hazardous constituents from another SWMU and/or AOC that may present a threat to human health or the environment, the Department may require submission of an additional CMS Work Plan and will notify the Permittee in writing of this decision. This notice will identify the hazardous constituent(s) of concern and may specify remedial alternatives to be evaluated by the Permittee during the CMS.
- D. The Department may require the Permittee to evaluate, as part of the CMS, one or more specific potential remedies. These remedies may include a specific

technology or combination of technologies that, in the Department's judgment, may be capable of achieving standards for protection of human health and the environment.

- E. The Permittee shall submit any additional CMS Work Plan to the Department and EPA within forty-five (45) days of notification of the requirement to conduct a CMS. The CMS Work Plan shall be consistent with guidance contained in the EPA document entitled: RCRA Corrective Action Plan (Final), May 1994, OSWER Directive 9902.3-2A. At a minimum, any CMS Work Plan submitted pursuant to this Permit shall provide the following information and shall contain a schedule for implementation of the work plan which is predicated on the date of Departmental approval of the plan:
1. A description of the general approach to investigating and evaluating potential remedies;
  2. A definition of the specific objectives of the study;
  3. A description of the remedies which will be studied;
  4. A description of those potential remedies that were preliminarily considered, but were dropped from further consideration including the rationale for elimination;
  5. The specific plans for evaluating remedies to ensure compliance with remedy standards;
  6. The schedules for conducting the study and submitting a CMS Report;
  7. The proposed format for the presentation of information; and
  8. 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.
- F. The Department will review and approve any CMS Work Plan required by this Permit in accordance with the procedures set forth in Review and Approval Procedures, Corrective Action Condition XIX. The Permittee shall complete implementation in accordance with the schedule contained in the approved plan.

XI. Corrective Measures Study (CMS) Report

- A. The Permittee submitted a Post-Injection Remedial Action Report on June 27, 2006, that assesses the interim corrective measures (HRC injection) for remediation of releases from the former underground storage tank area at the facility. The Permittee shall submit any additional CMS Report required by this Permit to the Department and EPA according to the schedule contained in the approved CMS Work Plan. The CMS Report shall present all information gathered under the approved CMS Work Plan and shall be consistent with guidance contained in the EPA document entitled, RCRA Corrective Action Plan (Final), May 1994, OSWER Directive 9902.3-2A.

The CMS Report shall summarize the results of the investigations for each remedy studied and of any bench-scale or pilot tests conducted. The CMS Report shall include, but not be limited to, the following information:

1. Evaluation of performance, reliability, ease of implementation, and potential impacts of each remedy studied, including safety impacts, cross media impacts, and control of exposure to any residual contamination;
  2. Assessment of the effectiveness of each remedy in achieving adequate control of sources and cleanup of the hazardous waste or hazardous constituents released from the SWMU(s)/AOC(s);
  3. Assessment of the time required to begin and complete each remedy;
  4. Estimation of the costs of implementing each remedy;
  5. Recommendation of remedy and rationale for selection; and
  6. Assessment of institutional requirements, such as state or local permit requirements, or other environmental or public health requirements which may substantially affect implementation of the remedy.
- B. The CMS Report shall contain adequate information to support the Department in the final remedy approval decision-making process.
- C. The Department will review and approve the CMS Report in accordance with the procedures set forth in Review and Approval Procedures, Corrective Action Condition XIX. Upon approval thereof by the Department, the Department will approve a final remedy as specified in Corrective Action Condition XII.

XII. Final Remedy Approval

Following the approval of the CMS Report or equivalent, the Department will prepare a Statement of Basis (SB) summarizing the corrective measures alternatives that were evaluated by the Permittee, including justification for the proposed final remedy, contained in the approved CMS Report.

Following preparation of the SB by the Department, a Permit modification will be initiated by the Department pursuant to 40 CFR 270.41 or the Permittee pursuant to 270.42(c), as applicable, to implement the final remedy.

Upon completion of the public participation activities associated with the permit modification to implement the proposed final remedy, the Department will approve a final remedy that will: 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 might pose a threat to human health and the environment; and 3) meet all applicable federal, state, and local laws and regulations.

XIII. Corrective Measures Construction Completion Report (CCR)

If, in the future, the Department determines that a new or revised final remedy is necessary, all Corrective Action Conditions of this Permit shall continue to be in force, unless and until appropriate permit modifications for any new or revised final remedy are reviewed, processed, and approved.

Within sixty (60) calendar days of completion of construction of all elements of the approved final remedy, the Permittee shall submit a CCR to the Department and EPA. The CCR shall summarize all corrective measure construction activities previously implemented at the facility, the location(s) and design of any groundwater monitoring or recovery wells, and copies of any other state or local permits or approvals that were necessary to implement any interim and final corrective measures. The CCR shall also contain, as applicable, the information described in Chapter V., Section VI. of the RCRA Corrective Action Plan (Final), May 1994, OSWER Directive 9902.3-2A.

Documentation of any aspect or element of the final remedy that has not previously been provided to the Department and EPA shall be included in the CCR.

The Department will review and approve the CCR in accordance with the procedures set forth in Review and Approval Procedures, Corrective Action Condition XIX.

XIV. Long-Term Operation, Maintenance, and Monitoring (LT OM&M) Plan

The Permittee shall submit a LT OM&M Plan for the approved final remedy within 60 calendar days of submission of the CCR Report. The LT OM&M Plan shall specify operation, maintenance, and monitoring procedures for the approved final remedy and shall address, as applicable, the information described in Chapter V., Section II of the RCRA Corrective Action Plan (Final), May 1994, OSWER Directive 9902.3-2A.

The Department recognizes that, in this particular case, the LT OM&M Plan will essentially be comprised of a revised groundwater SAP that reflects the requirements of this Permit, along with other long-term remedy-related elements (e.g., reporting, etc.).

Groundwater monitoring and evaluation shall be conducted as specified elsewhere in this Permit. The groundwater monitoring program shall be designed to determine the effectiveness of the approved final remedy in meeting the GPS maximum concentration limits specified in Table I. Groundwater-related data shall be included in the Groundwater Corrective Action Reports as specified in Corrective Action Condition III.F. The LT OM&M Plan shall specify the operation and maintenance procedures for all elements/components of the approved final remedy, including the replacement schedule for equipment and installed components. The LT OM&M Plan shall also describe any standard operating procedures (SOPs), institutional controls, and/or other relevant long-term remedy-related activities.

The LT OM&M Plan shall contain a revised cost estimate for implementation of corrective action activities that reflects the requirements of this Permit and related, approved documents.

The LT OM&M Plan and revised corrective action cost estimate will be reviewed and approved in accordance with the procedures set forth in Review and Approval Procedures, Corrective Action Condition XIX. Upon approval by the Department, the Permittee shall implement all activities detailed therein and comply with the schedule(s) contained in the approved plan. The Permittee shall provide financial assurance for corrective action based on the approved, revised cost estimate contained in the LT OM&M Plan as specified above.

XV. Corrective Measures Completion (CMC) Report

The Permittee's groundwater corrective action program shall continue until such time as the Permittee demonstrates that the GPS maximum concentration limits specified in

Table I have not been exceeded for a period of three (3) consecutive years. The CMC Report shall include this demonstration in support of completion of corrective measures at the facility.

The Permittee shall submit a CMC Report to the Department and EPA within sixty (60) calendar days of completion of all corrective measures (i.e., all media protection/clean-up standards are met and all related corrective action activities are complete). The CMC Report shall contain a summary of corrective measures implemented at the facility including any LT OM&M program associated with the corrective measures. The completion of any short-term corrective action activities shall be summarized in the CMC Report and shall also be reported in the Groundwater Corrective Action Reports required by Correction Action Condition III.F.

The CMC Report will be reviewed and approved in accordance with the procedures set forth in Review and Approval Procedures, Corrective Action Condition XIX. Within sixty (60) calendar days of receipt of the Department's approval of the CMC Report documenting completion of all corrective measures, the Permittee shall submit to the Department and EPA, by registered mail, a written certification stating that the approved final remedy has been completed in accordance with approved plans/specifications and the requirements of this Permit. The Permittee and a qualified independent professional engineer registered in the state of Missouri shall sign the certification.

#### XVI. Annual Corrective Action Progress Reporting

- A. The Permittee shall include the following information in the Annual Groundwater Corrective Action Reports required by Corrective Action Condition III.F. for the time period being reported (i.e., the previous calendar year). This information shall continue to be submitted until such time as the Permittee's corrective action activities (including any long-term operation, maintenance and monitoring activities) are complete:
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.
- B. If the Department determines that additional corrective action (i.e., that which is over and above final remedy operation, maintenance, and monitoring) is required pursuant to the Corrective Action Conditions of this Permit, the frequency of submittal of corrective action progress reports may increase. If an increase in reporting frequency is necessary, the Department will provide written notification of the new reporting frequency to the Permittee.
- As part of any additional corrective action activities undertaken pursuant to this Permit, detailed technical information required to be submitted as part of interim/stabilization measures: RFI and/or CMS work plans and reports, CC Report, LT OM&M Plan and CMC Report need not be reproduced as part of the Permittee's Progress Reports.
- C. Copies of other reports (e.g., inspection reports), information, or data shall be made available to the Department and EPA upon request.

#### XVII. Supplemental Data

All raw 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 re-issued permits.

#### XVIII. Corrective Action Cost Estimate and Financial Assurance

The Permittee shall comply with the requirements set forth in the Missouri Hazardous Waste Management Law and all standards, rules, and regulations adopted under this act, Section 260.350, et seq., RSMo, 40 CFR Part 264 Subpart H, 40 CFR 270.30, 40 CFR 270.40, 40 CFR 270.42, and 40 CFR 270.51, as incorporated and modified in 10 CSR 25-7 and 10 CSR 25-8.

##### A. Cost Estimates

##### 1. Corrective Action Cost Estimate

Within sixty (60) days of the final remedy permit modification, the Permittee shall submit a detailed, written revised cost estimate as part of

the LT OM&M Plan, in current dollars, of the cost of hiring a third party to perform the corrective action activities required by this Permit.

- a. The cost estimate shall account for the total costs of the work activities including any necessary long-term costs, such as operation, maintenance, and monitoring costs.
- b. 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.
- c. 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.
- d. Discounting is not allowed.

The Permittee shall submit each corrective action cost estimate for review and approval by the Department. The Department will review each cost estimate and notify the Permittee, in writing, of the Department's approval, rejection, or modification of the cost estimate in accordance with Corrective Action Permit Condition XIX. If the Department does not approve the cost estimate, the Department will notify the Permittee in writing of the estimate's deficiencies and specify a due date for submittal of a revised cost estimate.

## 2. Revisions to the Corrective Action Cost Estimate

### a. Annual Adjustment for Inflation

The Permittee shall adjust annually the corrective action cost estimate for inflation until all corrective action activities required by this Permit are complete. The inflation adjustment shall be determined by using the procedures described in 40 CFR 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, for the cost estimate is due within sixty (60) days before the anniversary

date of the establishment of the financial assurance instrument used to comply with this section. If the Permittee uses a financial test or corporate guarantee to demonstrate financial assurance, the cost estimate is due within thirty (30) days of the end of the provider's fiscal year end.

b. Additional Corrective Action Activities

The Permittee shall increase the corrective action cost estimate if

- (1) the Permittee or the Department determines that any additional corrective action activities are required or
- (2) if any other conditions increase the estimated cost of the corrective action activities to be performed under this Permit.

If the Department determines that a new cost estimate is required to account for activities other than inflation, the Department will notify the Permittee of this requirement.

The Permittee shall submit each revised corrective action cost estimate for review and approval by the Department. The Department will review each revised cost estimate and notify the Permittee, in writing, of the Department's approval, rejection or modification of the cost estimate in accordance with Corrective Action Permit Condition XIX. If the Department does not approve the revised cost estimate, the Department will notify the Permittee in writing of the estimate's deficiencies and specify a due date for submittal of a new revised cost estimate.

B. Financial Assurance

In order to provide for the full and final completion of the 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 Department-approved corrective action cost estimate. The Permittee may use one or more of the financial assurance forms generally described in Corrective Action Condition XVIII.B.11. All financial assurance instruments provided pursuant to this Permit shall be satisfactory in form and substance as determined by the Department. The Department reserves the right to

limit the choices of the Permittee to one or more of the instruments described in Corrective Action Condition XVIII.B.11., on a case-by-case basis, in order to ensure the full and final completion of the corrective action activities required by this Permit.

1. Time Frames for Financial Assurance Instruments (other than Financial Test or Corporate Guarantee)
  - a. Within thirty (30) days after Department approval of the Permittee's corrective action cost estimate(s) pursuant to this Permit, the Permittee shall submit draft financial assurance instruments and related documents to the Department for review and approval. This applies to all financial assurance instruments except the financial test or corporate guarantee. See Corrective Action Permit Condition XVIII.B.2. for time frames for financial tests and corporate guarantees.
  - b. Within ten (10) days after Department approval of 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 instruments or other documents must be in a form identical to the draft financial assurance documents reviewed and approved by the Department.
  - c. Within thirty (30) days after receiving Department approval of the draft financial assurance instrument(s), the Permittee shall submit all original executed and/or otherwise finalized instruments or other documents to the Department. The Permittee must submit original executed or otherwise finalized instruments or documents. Facsimiles or photocopies are not acceptable.
2. Time Frames for Financial Tests and Corporate Guarantees
  - a. Within thirty (30) days after the Department's approval of the Permittee's corrective action cost estimate(s) pursuant to this Permit, the Permittee shall submit to the Department all documentation necessary to demonstrate that the Permittee satisfies the financial test criteria pursuant to Corrective Action Permit Condition XVIII.B.11.e.

- b. The Permittee's financial assurance shall be effective immediately upon the Department's approval of the Permittee's corrective action cost estimate or the Permittee's demonstration that the Permittee satisfies the financial test criteria pursuant to Special Permit Condition XVIII.B.11.e., whichever date is later.
- c. The Permittee agrees that if the Permittee provides financial assurance by means of a corporate guarantee or financial test, the Department may request additional information (including financial statements and accountant's reports) from the Permittee or corporate guarantor at any time. The Permittee shall promptly provide the requested information to the Department.

3. Certified Mail

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

4. Multiple Instruments

The Permittee may combine more than one mechanism to demonstrate financial assurance for the corrective action activities required by this Permit. However, mechanisms guaranteeing performance rather than payment may not be combined with other instruments.

5. Inadequate Financial Assurance Instrument

- a. If, at any time, the Department determines that a financial assurance instrument provided pursuant to this Permit is inadequate, or no longer satisfies the requirements, the Department may notify the Permittee in writing. This applies whether there is an increase in the estimated cost of the corrective action activities required by this Permit or for any other reason.
  - (1) Within thirty (30) days of receipt of such notice, the Permittee shall submit draft financial assurance instruments and related documents to the Department for review and approval. The draft financial assurance instruments and related documents shall address the inadequacies outlined in the Department's notice.



Permittee and the Department by certified mail of a decision to cancel, terminate or not renew a financial assurance instrument. The Permittee and the Department must receive such notification at least one hundred and twenty (120) days before expiration, cancellation, or termination of the instrument. Under the terms of the financial assurance instrument, the one hundred and twenty (120) days will begin on the date of receipt of the notice by certified mail by both the Permittee and the Department.

Within ninety (90) days following receipt of such notice by both the Permittee and the Department, the Permittee must provide alternate financial assurance and obtain written approval for such alternate financial assurance.

If the Permittee fails to provide alternate financial assurance within ninety (90) days, the Department will notify the financial assurance provider in writing before the expiration of the instrument. The notification to the financial assurance provider shall instruct the financial assurance provider to immediately deposit the remaining funds obligated under the financial assurance into the standby trust fund or a newly created trust fund approved by the Department.

8. Modification of Amount and/or Form of Financial Assurance

a. Reduction of Amount of Financial Assurance

If the Permittee believes that the estimated cost to complete the 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. The amount of the financial assurance proposed must at least be equal to the estimated cost of the remaining corrective action activities required by this Permit. The written proposal shall specify, at a minimum, the cost of the remaining corrective action activities to be performed and the basis upon which such cost was calculated. In seeking approval of a revised financial assurance amount, the Permittee shall follow the procedures set forth in Corrective Action Permit Condition XVIII.B.8.b.(2) of this Section. The Department shall notify the Permittee of its approval in writing. The Permittee may reduce the amount of the financial assurance after receiving the Department's

written approval but only in accordance with and to the extent permitted by such written approval. No change to the form or terms of any financial assurance provided under this Section, other than a reduction in amount, is authorized except as provided in Corrective Action Permit Condition XVIII.B.8.b.

b. Change of Form of Financial Assurance

- (1) If the Permittee wishes to change the form or terms of financial assurance, the Permittee may submit a written proposal to the Department to change the form of financial assurance. The submission of such a proposal shall be as provided in Corrective Action Permit Condition XVIII.B.8.b.(2). The approval of a proposal submitted under this Corrective Action Permit Condition XVIII.B.8. shall be made at the Department's sole discretion.
- (2) A written proposal for a revised or alternative form of financial assurance shall specify, at a minimum,
  - (a) the cost of the remaining corrective action activities to be performed;
  - (b) the basis upon which such cost was calculated; and
  - (c) 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 set forth or incorporated by reference in this Permit. The Department shall notify the Permittee in writing of its decision to accept or reject a revised or alternative form of financial assurance submitted pursuant to this paragraph.

Within ten (10) days after receiving written approval of the proposed revised or alternative financial assurance, the Permittee shall execute and/or otherwise finalize all instruments or other

documents required in order to make the selected financial assurance legally binding and effective in a form identical to the documents submitted to the Department.

Within thirty (30) days of receiving written approval of the proposed revised or alternative financial assurance, the Permittee shall submit 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. Facsimiles or copies are not acceptable.

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

9. Performance Failure

- a. In the event that the Department determines that the Permittee
  - (1) has ceased implementation of any of the corrective action activities required by this Permit;
  - (2) is significantly or repeatedly deficient or late in its performance of the corrective action activities required by this Permit; or
  - (3) is implementing the 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 a written notice (“Performance Failure Notice”) of the Permittee’s failure to perform to both the Permittee and the financial assurance provider. The notice will specify the grounds upon which it was issued and will provide the Permittee a period of ten (10) days to remedy the circumstances.

- b. If the Permittee fails to remedy the relevant Performance Failure to the Department’s satisfaction before the expiration of the ten-day notice period specified in Corrective Action Permit Condition

XVIII.B.9.a. 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

- (1) deposit into the standby trust fund, or a newly created trust fund approved by the Department, the remaining funds obligated under the financial assurance instrument; or
- (2) arrange for performance of the corrective action activities required by this Permit.

c. The Department shall give the Permittee written notice if

- (1) the Department determines that any of the circumstances described in Special Permit Condition XVIII.B.9(a) (1), (2), or (3) have occurred, and
- (2) the Department is nevertheless unable, after reasonable efforts, to secure the payment of funds or performance of the corrective action activities required by this Permit from the financial assurance provider.

d. Within ten (10) days of receiving such written notice, the Permittee shall provide cash to fund the standby trust fund, or a newly created trust fund approved by the Department. The funds must at least equal the cost of the remaining corrective action activities required by this Permit. The deposit shall be made in immediately available funds and without setoff, counterclaim, or condition of any kind.

#### 10. Release of Financial Assurance

The Permittee may submit a written request to the Department to release the Permittee from the requirement to maintain financial assurance after the Department and the Permittee have mutually agreed that all corrective action activities required by this Permit are complete. The Department shall notify both the Permittee and the provider(s) of the financial assurance 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 this paragraph or Corrective Action Permit Condition XVIII.B.8.b.

11. Financial Assurance Instruments

To the extent possible, the wording of the financial assurance documents shall meet the requirements of 40 CFR 264.143 and 40 CFR 264.151 as incorporated and modified in 10 CSR 25-7. All financial assurance instruments provided pursuant to this Permit shall be satisfactory in form and substance as determined by the Department.

a. Trust Fund

The trust fund shall be

- (1) Established for the benefit of the Department;
- (2) 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; and
- (3) Acceptable in all respects to the Department.

The trust agreement shall provide that the trustee shall make payments from the fund as the Department shall direct in writing

- (4) to reimburse the Permittee for expenditures made by the Permittee for corrective action activities performed in accordance with this Permit, or
- (5) to pay any other person whom the Department determines has performed or will perform the corrective action activities required by this Permit.

The trust agreement shall further state that the trustee shall not refund to the grantor any amounts from the fund until the

Department has advised the trustee in writing that the corrective action activities performed in accordance with this Permit have been completed to the satisfaction of the Department.

b. Surety Bond

A surety bond must unconditionally guarantee either

- (1) payment at the direction of the Department into a standby trust fund that meets the requirements of the trust fund in Corrective Action Permit Condition XVIII.B.11.a.; or
- (2) performance of the 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 set forth in Circular 570 of U.S. Department of the Treasury.

If the Permittee seeks 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 must meet the requirements of Corrective Action Permit Condition XVIII.B.11.a. 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 Corrective Action Permit Condition XVIII.B.9. of this Section.

c. Irrevocable Letter of Credit

An irrevocable letter of credit shall be payable at the direction of the Department into a standby trust fund that meets the requirements of Corrective Action Permit Condition XVIII.B.11.a. The letter of credit shall be issued by a financial institution

- (1) that has the authority to issue letters of credit, and
- (2) whose letter-of-credit operations are regulated and examined by a federal or state agency.

If the Permittee seeks 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 must meet the requirements of Corrective Action Permit Condition XVIII.B.11.a. 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 Corrective Action Permit Condition XVIII.B.9.

d. Policy of Insurance

A policy of insurance shall

- (1) provide the Department with rights as a beneficiary which are acceptable to the Department; and
- (2) be issued by an insurance carrier that
  - (a) has the authority to issue insurance policies in Missouri, and
  - (b) whose insurance operations are regulated and examined by a federal or state agency.
- (3) The insurance policy shall be issued for a face amount at least equal to the current approved corrective action cost estimate for the corrective action activities to be performed under this Permit, except where costs not covered by the insurance policy but are covered by another financial assurance instrument, as permitted in Corrective Action Permit Condition XVIII.B.4. of this Section.
- (4) The insurance policy shall state that the insurer shall make payments up to an amount equal to the face amount of the policy as directed by the Department in writing
  - (a) to reimburse the Permittee for expenditures made by the Permittee for corrective action activities performed in accordance with this Permit or
  - (b) to pay any other person whom the Department determines has performed or will perform the corrective action activities required by this Permit.

- (5) 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
  - (a) the Permittee is named as a debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or
  - (b) the Department notifies the insurer of the Permittee's failure to perform, under Corrective Action Permit Condition XVIII.B.9.

e. Financial Test

A Permittee may provide financial assurance through a demonstration by the Permittee that the Permittee meets the financial test criteria of 40 CFR.264.143(f) provided that all other requirements of 40 CFR 264.143(f), as incorporated and modified in 10 CSR 25-7, are satisfied. See Corrective Action Permit Condition XVIII.B.11.g. for further requirements.

A commercial facility may not satisfy financial assurance requirements for corrective action by use of a financial test.

f. Corporate Guarantee

A direct or indirect parent company of a Permittee may provide a corporate guarantee executed in favor of the Department. Such guarantee shall state that the company providing the guarantee shall perform the corrective action activities required by this Permit or that the company shall establish a trust fund as permitted by Corrective Action Permit Condition XVIII.B.11.a. Any company providing such a guarantee shall demonstrate to the satisfaction of the Department that it meets the financial test requirements of 40 CFR 264.143(e), as incorporated and modified in 10 CSR 25-7. See Corrective Action Permit Condition XVIII.B.11.g. for further requirements.

g. Additional Requirements for Financial Test/Corporate Guarantee

If at any time during the term of this Permit, the Permittee demonstrates financial assurance for the corrective action activities required by this Permit by providing a corporate guarantee or financial test pursuant to Corrective Action Permit Condition XVIII.B.11.e., the Permittee shall also comply with the other relevant requirements of 40 CFR 264.143(f), 40 CFR 264.151(f), and 40 CFR 264.151(h)(1), as incorporated and modified in 10 CSR 25-7, relating 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 ninety (90) days after the close of each of the guarantor's fiscal year; and
- (3) notification to the Department by certified mail within ninety (90) days after the close of any of the guarantor's fiscal year in which any such guarantor no longer satisfies the financial test requirements set forth at 40 CFR Part 264.143(f)(1), as incorporated and modified in 10 CSR 25-7.

If the Permittee provides financial assurance by means of a corporate guarantee or financial test, the Department may request additional information (including financial statements and accountant's reports) from the Permittee or corporate guarantor at any time. The Permittee shall promptly provide the requested information to the Department.

For purposes of the corporate guarantee or the financial test described in Corrective Action Permit Condition XVIII.B.11.e., references in 40 CFR 264.143(f), as incorporated and modified in 10 CSR 25-7, to "the sum of current closure and post closure costs and the current plugging and abandonment cost estimates" and references in 40 CFR 264.101(c), as incorporated and modified in 10 CSR 25-7, to "Assurances of financial responsibility for such

corrective action must 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 corrective action activities required by this Permit. This includes obligations under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), RCRA, Underground Injection Control (UIC) Program, Toxic Substances Control Act (TSCA) and any other state or tribal environmental obligation.

**XIX. Review and Approval Procedures**

Financial assurance cost estimates and draft financial assurance mechanisms for corrective action shall be reviewed and approved by the Department in accordance with this section and Corrective Action Condition XVIII.

Following submission of any plan or report pertaining to corrective action activities (excluding the Annual Groundwater Corrective Action Reports unless proposed actions to address inadequacies are contained therein) and Corrective Measures, the Department shall review and notify the Permittee in writing whether the plan or report is approved.

If the Department does not approve the plan or report, the Department will notify the Permittee in writing of the plan or report’s deficiencies and specify a due date for submittal of a revised plan or report.

If the Department does not approve the revised plan or report, the Department may modify the plan or report and notify the Permittee of the modifications. The plan or report as modified by the Department shall be the approved plan or report.

If the Permittee disagrees with any Department-initiated plan or report modifications, and a mutually acceptable resolution of such modifications cannot be informally reached, any appeal of the Department-initiated modifications shall be filed in accordance with Section 260.395.11, RSMo, 621.250, RSMo and 10 CSR 25-8.

Should the Permittee require additional time to submit a scheduled document or perform other activities required by this Permit, the Permittee shall provide a written extension request to the Department at least 15 days prior to the scheduled due date of the document or activity. The Permittee’s extension request shall specify the amount of additional time requested and shall be accompanied by the Permittee’s justification for the extension. Review and approval of extension requests shall be in accordance with this Permit condition.

FACILITY SUBMISSION SUMMARY

**Table III - Summary of the Non-corrective Action Related Submittal Requirements Pursuant to this Permit**

Submittal Requirements	Due Date	Permit Condition
Consolidated Permit Application	Within 60 calendar days of effective date of this Permit.	Schedule of Compliance Item I.A.
Certification that Permittee has read and understands this Permit	Within 60 calendar days of effective date of this Permit.	Schedule of Compliance Item I.B.
Check or money order for all outstanding engineering review costs and permit fees.	Within 60 calendar days of effective date of this Permit.	Schedule of Compliance Item I.C. & D.
The Permittee shall update the facility's closure plan in accordance with 40 CFR 264.112, and associated closure cost estimate required by 40 CFR 264.142.	Within 60 calendar days after the effective date of this Permit.	Schedule of Compliance Item II.
The Permittee shall update the financial assurance instrument.	Within 60 calendar days after the Departments approval of the updated closure plan and cost estimate	Schedule of Compliance Item II.
Biennial Report with information required by 40 CFR 264.75.	March 1 <sup>st</sup> of each even numbered calendar year.	General Permit Condition I.

**Table IV – Summary of the Planned Corrective Action Submittal Requirements**

<b>Planned Submittal Requirements</b>	<b>Due Date</b>	<b>Corrective Action Condition</b>
Revised Groundwater SAP	Within 60 calendar days of the effective date of this Permit.	III.D.6.
Annual Groundwater Corrective Action Report	By March 1 <sup>st</sup> of each calendar year.	III.F.
Corrective Measures Study (CMS) Work Plan	Within 120 calendar days of the effective date of this Permit.	X.
Corrective Measures Study (CMS) Report	According to the schedule contained in the approved CMS Work Plan.	XI.
Construction Completion Report	Within 60 calendar days of final remedy construction completion.	XIII.
LT OM&M Plan and Cost Estimate	Within 60 calendar days of submittal of the final remedy construction completion report.	XIV.
Corrective Measure Completion Report (CMC)	Within 60 calendar days of completion of all corrective measures.	XV.
Final Remedy completion certification	Within 60 calendar days of department's approval of the CMC Report.	XV.
Annual Corrective Action Progress Reports	March 1 <sup>st</sup> of each calendar year.	XVI.
Draft Financial Assurance Instrument	Within 30 calendar days of approval of Cost Estimate.	XVIII.B.
Final Financial Assurance Instrument	Within 30 calendar days of approval of Draft Financial Assurance Instrument.	XVIII.B.

**Table IV (cont.) Summary of the Planned Corrective Action Submittal Requirements**

<b>Planned Submittal Requirements</b>	<b>Due Date</b>	<b>Corrective Action Condition</b>
Update of Financial Assurance for Corrective Action	Within 60 calendar days before the anniversary date of the establishment of the financial assurance instrument.	XVIII.B.

**Table V – Summary of the Contingent Corrective Action Submittal Requirements**

<b>Contingent Submittal Requirements</b>	<b>Due Date</b>	<b>Corrective Action Condition</b>
Written Notification of Newly Identified SWMU(s) and AOC(s)	No later than 15 calendar days after discovery.	V.A.
SWMU/AOC Assessment Work Plan	Within 30 calendar days of notice by the Department that a work plan is required.	V.B.
SWMU/AOC Assessment Report	In accordance with the schedule in the Assessment Work Plan.	V.D.
Written Notification of Newly Identified Releases from SWMU(s) and AOC(s)	No later than 15 calendar days after discovery.	VI.A.
Newly Identified Release Work Plan	Within 30 calendar days of notice by the Department that a work plan is required.	VI.B.
Newly Identified Release Report	In accordance with the schedule in the approved Newly Identified Release Work Plan.	VI.D.
Stabilization Notification	Within 24 hours of discovery of need for stabilization.	VII.A.
Stabilization Not Effective Notification	Within ten calendar days of determination by Permittee.	VII.C.
RCRA Facility Investigation (RFI) Work Plan	Within 60 calendar days of notice that the Plan is required.	VIII.A.

**Table V (cont.) Summary of the Contingent Corrective Action Submittal Requirements**

<b>Contingent Submittal Requirements</b>	<b>Due Date</b>	<b>Corrective Action Condition</b>
RCRA Facility Investigation (RFI) Report	In accordance with the schedule in the approved RFI Work Plan.	IX.A.
Additional Corrective Measures Study (CMS) Work Plan	Within 45 calendar days of notice by the Department that a work plan is required.	X.E.
Corrective Measures Study (CMS) Report	In accordance with the schedule in the approved CMS Plan.	XI.

FIGURES

Figure 1

