STATE OF KANSAS

DEPARTMENT OF HEALTH AND ENVIRONMENT
DIVISION OF ENVIRONMENT

Hazardous Waste Management Facility Permit

In accordance with the provisions of Kansas Statutes Annotated (K.S.A.) 65-3430 et seq. permission is hereby granted for hazardous waste storage in containers and hazardous waste transportation to:

Facility Name:    Univar Solutions USA Inc.
Facility Operator:    Univar Solutions USA Inc.
Facility Owner:    Univar Solutions USA Inc.
Facility Location:    5420 Speaker Road
                      Kansas City, Kansas 66106
EPA Identification Number:    KSD057889313

This Hazardous Waste Management Facility Permit is being issued in accordance with rules and regulations of the Kansas Department of Health and Environment (KDHE) and the following-named conditions and requirements, to wit: Univar Solutions USA Inc. (Permittee) must comply with all terms and conditions in Section I through Section VII of this Permit. The Permit consists of the terms and conditions contained herein, including those in any attachments; the approved Permit Application (Part A and Part B); documents submitted in response to a condition in this Permit and approved by the Secretary; and the applicable regulations contained in 40 CFR Parts 124 and 260 through 270, as such applicable regulations are adopted and modified by K.A.R. 28-31-4 through 28-31-279a. This Permit also contains provisions for corrective action as necessary to protect human health and the environment to address any Release(s) from any solid waste management unit (SWMU) or area of concern (AOC) at the Facility, identified above, or those which may have migrated beyond the Facility property boundary.

This Permit shall become effective on ______________ and shall remain in effect until ______________ unless revoked and reissued or terminated or continued in accordance with K.A.R. 28-31-124b.

Done at Topeka, this _____ day of ______________

Janet Stanek, Acting Secretary
Kansas Department of Health and Environment
FACILITY OVERVIEW

Univar Solutions provides containerized waste transportation and storage services for its customers, storing hazardous waste that is generated both on-site and off-site. In addition to its hazardous waste services, the facility serves as a distribution facility for bulk and containerized chemicals, solvents, and plastics. The facility consists of an office, warehouse, truck rack, tank car unloading area, and aboveground storage tank farm.

The facility currently operates one permitted hazardous waste storage area for containerized waste located north of the warehouse. The storage area consists of a sloped concrete pad covered by a metal roof and partial metal side walls creating an outdoor storage area protected from the elements. Hazardous waste is stored at the facility in portable containers, per 40 CFR § 264.170 through § 264.179. The hazardous waste storage area is divided into three individual bays and is permitted to handle a maximum capacity of 9,240 gallons, the equivalent of 168 55-gallon containers. Containers of hazardous waste stored in the storage area are stored on pallets (unless the containers have their own built-in legs) and are stacked no more than two high. The deck elevation is four feet above the surrounding ground surface to prevent run-on of storm water. Secondary containment is provided by a six-inch wide by three-inch high concrete curb that lines the perimeter of each individual storage bay. The concrete deck of each bay is free of cracks and is chemically coated to provide an impermeable base below the containers. The facility also temporarily stores waste in accordance with the 10-day transportation exemption of 40 CFR § 263.12.
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SECTION I - STANDARD PERMIT CONDITIONS

I.A. EFFECT OF PERMIT

Univar Solutions USA Inc. (“Permittee”) is the Owner and Operator of the Facility and is authorized to store and transport hazardous waste in accordance with the terms and conditions of this Permit, K.S.A. 65-3430 et seq., and K.A.R. 28-31-4 through 28-31-279a.

Any treatment, storage, or disposal of hazardous waste not authorized in this Permit is strictly prohibited. This Permit consists of the terms and conditions contained herein, including those in any Attachments; the approved Permit Application; documents submitted in response to a condition in this Permit and approved by the Secretary; and the applicable regulations contained in 40 CFR Parts 124 and 260 through 270, as such applicable regulations are adopted and modified by K.A.R. 28-31-4 through 28-31-279a. Applicable regulations are those in effect on the date of issuance of this Permit. [40 CFR § 270.32(c)] All citations to federal regulations are for convenient reference. Some modifications to federal regulations by applicable state regulations are noted in this Permit, but all modifications to federal regulations by state regulations are incorporated herein. To the extent that state regulations exclude any sections of applicable federal regulations, those sections of federal regulations shall remain in effect but shall not be enforceable by the Secretary. In the instance of inconsistent language or discrepancies between Permit conditions, state regulations, or federal regulations, state regulations shall govern. In the event a conflict or discrepancy exists between language or documents in the Permit Application and the conditions or Attachments of this Permit, this Permit or the Attachments shall control. This Permit contains terms and conditions as the Secretary determines are necessary to protect public health and the environment. [40 CFR § 270.32(b)(2)]

Subject to 40 CFR § 270.4, compliance with this Permit constitutes compliance, for purposes of enforcement, with K.S.A. 65-3430 et seq. and K.A.R. 28-31-4 through 28-31-279a, and Subtitle C of RCRA, as amended by the HSWA, included in this Permit, except for those requirements not included in this Permit which:

a. Become effective by statute;

b. Are promulgated under 40 CFR Part 268 restricting the placement of hazardous waste in or on the land;

c. Are promulgated under 40 CFR Part 264 regarding leak detection systems for new and replacement surface impoundments, waste piles and landfill units. The leak detection system requirements include double liners, construction quality assurance programs, monitoring, action leakage rates and response action plans and will be implemented through the procedures of 40 CFR § 270.42 Class 1 permit modification; or
d. Are promulgated under 40 CFR Part 265, Subparts AA, BB, or CC limiting air emissions.

Issuance of this Permit does not convey any property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of state or local law or regulations. [40 CFR § 270.4 and 270.30(g)] Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under Sections 3008(a), 3008(h), 3013, or 7003 of RCRA; Sections 106(a), 104, or 107 of CERLCA (42 U.S.C. 9606 et seq.); or, any other state or federal law providing for the protection of public health or the environment.

I.B. PERMIT ACTIONS

I.B.1. Permit Modification, Revocation and Reissuance, and Termination

This Permit may be modified, revoked and reissued, or terminated for cause, as specified in 40 CFR §§ 270.41, 270.42, and 270.43 and K.S.A. 65-3439. If cause exists, the Secretary of KDHE (Secretary) may modify or revoke and reissue this Permit in accordance with 40 CFR § 270.41, K.S.A. 65-3439, and K.S.A. 65-3440. If this Permit is modified, only the conditions subject to the modification are reopened. If this Permit is revoked and reissued, the entire Permit is opened and subject to revision, and may be reissued for a new term. During the revocation and reissuance proceedings, the Permittee shall comply with all conditions of the existing Permit until a new final permit is reissued. [K.A.R. 28-31-124b(c)(4)]

The Secretary will, upon request by the Permittee, approve or deny modifications to this Permit in accordance with 40 CFR § 270.42 and K.A.R. 28-29-124b. The modification will become an enforceable part of this Permit. The filing of a request for permit modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee, does not stay the applicability or enforceability of any permit condition. [40 CFR § 270.30(f)]

Failure to submit the information required by the conditions of this Permit, failure to comply with the conditions of this Permit, or misrepresentation of any submitted information, is grounds for suspension, revocation, or termination of the Permit in accordance with 40 CFR § 270.43, and for an enforcement action pursuant to Permit Condition I.E and Permit Condition I.K.

Any requirement in the Permit for a permit application shall include the requirements set out in K.A.R. 28-31-124a.

I.B.2. Permit Renewal
If the Permittee wishes to continue an activity regulated by this Permit after the expiration date of this Permit, the Permittee must apply for and obtain a new permit as specified in 40 CFR § 270.30(b), 40 CFR § 270.10(h), and Permit Condition I.E.3. Review of any application for a permit renewal shall consider improvements in the area of control and measurement technology, as well as changes in applicable regulations.

I.B.3. Permit Duration

As set forth at 40 CFR § 270.50, this Permit shall be effective for a fixed term not to exceed 10 years. Except as provided in Permit Condition I.E.4. – Permit Expiration, the term of a Permit shall not be extended by modification beyond the maximum term of 10 years. The Secretary may issue a Permit duration of less than 10 years or may grant a Permit modification to allow earlier Permit termination.

I.C. SEVERABILITY

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 stayed or held invalid, the application of such provision to other circumstances and the remainder of this Permit shall not be affected thereby. [40 CFR § 124.16]

I.D. DEFINITIONS

For purposes of this Permit, terms presented in Attachment 1 of this Permit and used herein shall have the same meaning as those in K.S.A. 65-3430 and K.A.R. 28-31-260a, and in 40 CFR Parts 124, 260, 261, 262, 264, 266, 268, and 270, as adopted by applicable state regulations, unless this Permit specifically provides otherwise. When the same word is defined in the Kansas statutes or regulations and in the federal regulations and the definitions are not identical, the definition in the Kansas statutes or regulations shall control. [K.A.R. 28-31-260a(b)] “Secretary” means the Secretary of the Kansas Department of Health and Environment (KDHE), or the Acting Secretary or a designee or authorized representative of the Secretary. Any reference to “KDHE” shall mean the Secretary or the Acting Secretary. Where terms are not defined in the regulations or the Permit, the meaning associated with such terms shall be defined by standard dictionary reference or the generally accepted scientific or industry meaning of the term.

I.E. DUTIES AND REQUIREMENTS

I.E.1. Duty to Comply

The Permittee shall comply with all conditions of this Permit, except to the extent and for the duration such noncompliance is authorized by an emergency permit. [40 CFR § 270.61] Any permit noncompliance, other than noncompliance
authorized by an emergency permit, also constitutes a violation of RCRA and the Kansas Hazardous Waste Program, and is grounds for an enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application. [40 CFR § 270.30(a), K.S.A. 65-3441, K.S.A. 65-3444]

I.E.2. Compliance Schedules

Any schedule of compliance established after the issuance of this Permit shall be adopted by reference as a condition of this Permit, as though fully set out herein. Furthermore, all plans and schedules, as required by this Permit, upon written approval from the Secretary, shall similarly be incorporated into this Permit. Any noncompliance with such approved plans and schedules shall be deemed noncompliance with this Permit. The Permittee shall only receive extension(s) of the specified compliance schedule due date(s) for the submittal(s) required by this Permit upon written approval from the Secretary.

I.E.3. Duty to Reapply

If the Permittee wishes to continue an activity regulated by this Permit after the expiration date of this Permit, the Permittee shall submit a complete application for a new permit at least one-hundred and eighty (180) days before this Permit expires, unless permission for a later submission date has been granted by the Secretary. In addition, the Permittee must submit an application for a new permit at least one-hundred and eighty (180) days before this Permit expires if ongoing closure, corrective action, and/or post-closure activities remain in effect. [K.A.R. 28-31-124a, 40 CFR §§ 270.10, and 270.30(b)]

I.E.4. Permit Expiration

Pursuant to 40 CFR § 270.50 and K.S.A. 65-3439(a) this Permit shall be effective for a fixed term not to exceed ten (10) years. As long as the KDHE is the permit-issuing authority, this Permit and all conditions herein will remain effective and enforceable beyond the Permit's expiration date if the Permittee has submitted a timely, complete application under state laws and regulations [40 CFR § 270.10, 40 CFR §§ 270.13 through 270.28], and, through no fault of the Permittee, the Secretary has not issued a new permit. [40 CFR § 270.51]

I.E.5. Enforcement

If the Permittee is not in compliance with the conditions of the expiring or expired Permit, the Secretary may choose to do any or all of the following:

a. Initiate enforcement action based upon the Permit which has been continued;
b. Issue a notice of intent to deny the new Permit under 40 CFR § 124.6. If the new Permit is denied, the Permittee shall cease the activities authorized by the continued Permit or be subject to enforcement action for operating without a Permit;

c. Issue a new Permit under 40 CFR Part 124 with appropriate conditions; or

d. Take other actions authorized by RCRA.

I.E.6. Corrective Action Obligations

The Permittee is obligated to complete Facility-wide corrective action under the conditions of this Permit regardless of the operational status of the Facility. The Permittee must submit an application for a new permit under Section I.E.3, unless the Permit has been modified to terminate the corrective action and the Secretary has released the Permittee from financial assurance requirements for corrective action.

I.E.7. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit. [40 CFR § 270.30(c)]

I.E.8. Duty to Mitigate

In the event of noncompliance with the Permit, the Permittee shall take all reasonable steps to minimize Releases to the environment and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment. [40 CFR § 270.30(d)]

I.E.9. Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all Facility systems of treatment and control, and related appurtenances, which are installed or used by the Permittee to achieve compliance with this Permit. Proper operation and maintenance include effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Permit. [40 CFR § 270.30(e)]
I.E.10. Duty to Provide Information

The Permittee shall furnish to the Secretary, within a reasonable time period as specified by the Secretary, any relevant information which the Secretary may request to determine compliance with this Permit, or whether cause exists for modifying, revoking and reissuing, or terminating this Permit. The Permittee shall also furnish to the Secretary, upon request, copies of records required to be kept by this Permit. [40 CFR §§ 264.74(a) and 270.30(h)]

I.E.11. Access, Inspection and Entry

Pursuant to 40 CFR § 270.30(i) and K.A.R. 28-31-12, the Permittee shall allow the Secretary, upon the presentation of credentials and other documents as may be required by law, to conduct any of the activities set forth in 40 CFR § 270.30(i) and K.A.R. 28-31-12(a).

The Secretary, and any agent or contractor designated by the Secretary, shall be allowed and authorized by the Permittee to enter and freely move about all property at the Facility for the purpose, among other things, of interviewing Facility personnel and contractors; inspecting records, operating logs, and contracts related to the activities set out in the work plan(s); reviewing the progress of the Permittee in carrying out the conditions of this permit; conducting such sampling and tests as the Secretary deems necessary; using a camera, sound recording, or other documentary type equipment to record interviews or observations of work or to conduct other activities to assure compliance with this Permit or applicable regulations; and verifying the reports and data submitted to the Secretary by the Permittee. The Permittee shall allow such persons to inspect and copy all records, files, photographs, documents, and other writings, including all sampling and monitoring data that pertain to work undertaken pursuant to this Permit or as required by applicable law.

To the extent that work required by this Permit must be completed on property not owned or controlled by the Permittee, the Permittee shall use its best efforts to obtain access agreements from the present owner(s) of such property within thirty (30) days of the date the need for access is provided to Permittee. Any such access agreement shall be incorporated by reference into this Permit. In the event that agreements for site access are not obtained within thirty (30) days of the date the need for access is provided, the Permittee shall notify the Secretary regarding both the lack of and its failure to obtain such agreements within seven (7) days thereafter. In the event the Secretary takes any action to obtain access for the Permittee, all costs incurred by the Secretary shall be reimbursed by the Permittee. Upon the Secretary’s obtaining access for the Permittee, the Permittee shall undertake approved work on such property. The Secretary shall not be responsible for any injury or damage to persons or property caused by the...
negligent or willful acts or omissions of the Permittee, its officers, employees, agents, successors, assigns, contractors or any other person acting on the Permittee’s behalf in carrying out any activities pursuant to the conditions of this Permit, in accordance with the Kansas Tort Claims Act.

I.E.12. Monitoring and Records

I.E.12.a. Representative Samples

Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. [40 CFR § 270.30(j)(1)] The method used to obtain a representative sample of the medium to be analyzed for a given hazardous constituent must be the appropriate method from Appendix I of 40 CFR, Part 261, or an equivalent method approved in writing by the Secretary. Laboratory methods must be those specified in the latest revision of EPA Publication SW-846, “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Standard Methods Compendium” or an equivalent method approved by KDHE.” All constituent chemical analysis shall be performed by a laboratory certified by KDHE in accordance with K.A.R. 28-31-264a(e) and (f).

I.E.12.b. Records Retention

The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart and recordings for continuous monitoring instrumentation, copies of all reports and records required by this Permit, the certification required by 40 CFR § 264.73(b)(9), and records of all data used to complete the application for this Permit, for a period of time as specified in Permit Condition I.J. of this Permit or as specified in applicable regulations. This period may be extended by written request of the Secretary at any time and is automatically extended during the course of any unresolved enforcement action regarding this Facility. [40 CFR §§ 264.74(b) and 270.30(j)(2)]

Furthermore, the Permittee shall maintain records from all past, present, and any future groundwater monitoring wells and associated groundwater surface elevations, for the active life of the Facility and the corrective action period and, if applicable, any post-closure period, and including all records required by 40 CFR §270.30(j)(2). 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 the conditions of this Permit, shall be maintained at the Facility, or such other location as approved
in writing by the Secretary, in accordance with Permit Condition I.J. of this Permit. Such information shall be made available to the Secretary upon request.

I.E.12.c. Contents of Record

Records of monitoring information shall include and specify:

i. The dates, exact place, and times of sampling or measurements;
ii. The individual(s) who performed the sampling or measurements;
iii. The dates analyses were performed;
iv. The individual(s) who performed the analyses;
v. The analytical techniques or methods used; and
vi. The results of such analyses, including laboratory QA/QC documentation. [40 CFR § 270.30(j)(3)]

I.E.13. Reporting Planned Changes

The Permittee shall give written notice to the Secretary as soon as possible, but no later than twenty (20) days prior to any planned physical alterations or additions to the permitted Facility. [40 CFR § 270.30(l)(1)] This includes advanced notice to the Secretary of any planned physical alterations or additions which may affect any hazardous waste management units (HWMUs), SWMUs, AOCs, contaminated media or debris, or existing Institutional Controls (ICs), or Engineering Controls (ECs). The replacement of worn or broken parts need not be reported as long as replacement is with an equivalent component, which does not significantly affect the designed operating procedures or performance of the Facility.

I.E.14. Reporting Anticipated Noncompliance

The Permittee shall give notice to the Secretary no later than twenty (20) days prior to any planned changes in the permitted Facility or activity which may result in noncompliance with permit requirements. Such notification does not waive the Permittee’s duty to comply with this Permit pursuant to Permit Condition I.E.1. [40 CFR §270.30(l)(2)] Such changes or activities shall include, but are not limited to, shutdown, construction, or modification of new or existing units for the treatment, storage, or disposal of hazardous waste.

I.E.15. Transfer of Permit

Before transferring ownership or operation of the Facility or any part of the Facility, the Permittee shall notify the new owner and/or operator in writing of
the requirements of K.A.R. 28-31-124a(b), 40 CFR Parts 264 and 270, and this Permit. At least ninety (90) calendar days prior to the anticipated date of transfer, the owner and/or operator shall submit to the Secretary certification that the new owner and/or operator has been notified of the requirements, terms, and conditions of this Permit and of the regulations cited in this paragraph. [40 CFR § 264.12(c)] If the property transfer involves subdividing the property to more than one owner or operator, a map and legal description shall be provided to the Secretary that identifies the properties to be occupied by each new owner.

The Permittee’s failure to notify the new owner and/or operator of the requirements of this Permit in no way relieves the new owner or operator of his obligation to comply with all applicable requirements. [40 CFR § 264.12, Comment]

The Permit may be transferred by the Permittee only if the Permit has been modified or revoked and reissued in accordance with 40 CFR § 270.40(b) or 270.41(b)(2). The Secretary may incorporate such other requirements as may be necessary under the Kansas Hazardous Waste Program as part of the modification to this Permit. [40 CFR § 270.30(l)(3)]

In order to transfer the Facility or any part of the Facility, the new owner and/or operator shall submit a revised permit application to the Secretary no later than ninety (90) days prior to the scheduled change in ownership and/or operational control. A written agreement containing a specific date for transfer of Permit responsibility between the Permittee and new Permittee(s) must also be submitted no later than ninety (90) days prior to the scheduled change in ownership and/or operational control. [40 CFR § 270.40(b)]. As soon as the Permit responsibilities are transferred to the new permittee, the new permittee shall become the “Permittee” in this Permit.

I.E.15.a. Financial Assurance

Whenever this Permit is transferred to a new permittee, the old Permittee shall maintain compliance with the requirements of Permit Condition II.M., until such time as the new permittee has demonstrated to the Secretary’s satisfaction compliance with these requirements. The new permittee shall demonstrate compliance with the requirements of Permit Condition II.M. within six (6) months of the date of the transfer of this Permit. Upon the new permittee’s demonstration of compliance with Permit Condition II.M., the Secretary shall notify the old Permittee that maintaining financial assurances is no longer required pursuant to Permit Condition II.M.
I.E.15.b. Bankruptcy

In the case of bankruptcy of the Permittee pursuant to Title 11 of the United States Code, Permittee shall comply with 40 CFR § 264.148. Permittee shall ensure that the bankruptcy Trustee provides the required notices to the Secretary and shall ensure that any new owner and/or operator submit a revised permit application no later than ninety (90) days prior to the scheduled change in ownership and/or operational control. A written agreement containing a specific date for transfer of permit responsibility between the bankruptcy court and/or the old Permittee and new permittee(s) must also be submitted no later than ninety (90) days prior to the scheduled change in ownership and/or operational control. Upon the new permittee’s satisfactory demonstration of compliance with 40 CFR § Part 264, Subpart H, and/or Permit condition II.M., the Secretary shall notify the Permittee that maintaining such financial assurance is no longer necessary.

I.E.16. Twenty-Four Hour Reporting

I.E.16.a. Pursuant to 40 CFR § 270.30(l)(6), the Permittee shall report to the Secretary any noncompliance with the Permit which may endanger health or the environment. Any such information shall be reported orally within twenty-four (24) hours from the time the Permittee becomes aware or reasonably should have become aware of the circumstances reported in accordance with this section. The report shall include the following:

i. Information concerning any Release which may cause an endangerment to public drinking water supplies;

ii. Any information of a Release or discharge or of a fire or explosion from the hazardous waste management Facility, which could threaten the environment or human health outside the Facility; and

iii. All spills that impact soils or waters of the state in accordance with K.A.R. 28-48-1 and K.A.R. 28-48-2.

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

i. Name, address, and telephone number of the owner or operator;

ii. Name, address, and telephone number of the Facility;

iii. Date, time, and type of incident;
iv. Name and quantity of materials involved;

v. The extent of injuries, if any;

vi. An assessment of actual or potential hazard to the environment and human health outside the Facility, where this is applicable; and

vii. Estimated quantity and disposition of recovered material that resulted from the incident.

I.E.16.c. A written submission shall also be provided within five (5) days of the time the Permittee becomes aware of the circumstances described in this section. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Secretary may waive the five-day written notice requirement in favor of submission of a written report within fifteen (15) days. [40 CFR § 270.30(l)(6)]

I.E.16.d. Notwithstanding the requirements of the foregoing section, the Permittee shall comply with all applicable federal, state, and local laws regarding notification to authorities of Releases into the environment, including the reporting requirements of K.A.R. 28-48-1 and 28-48-2.

I.E.17. Other Noncompliance

The Permittee shall report all instances of noncompliance not otherwise reported in compliance with 40 CFR § 270.30(l)(4) and (5) and Permit Conditions I.E.12, I.E.13, or I.E.15, at the time monitoring reports are submitted. The reports shall contain the information listed in Permit Condition I.E.15. of this section. [40 CFR § 270.30(l)(10)]

I.E.18. Information Repository

As set forth at 40 CFR § 270.30(m), the Secretary may require the Permittee to establish and maintain an information repository at any time, based on the factors set forth in 40 CFR § 124.33(b). The information repository will be governed by the provisions in 40 CFR § 124.33(c) through (f).

I.E.19. Other Information

Whenever the Permittee becomes aware that it failed to submit any relevant facts in the Permit Application, or that it submitted incorrect information in the application or in any report to the Secretary, the Permittee shall submit such facts
or information to the Secretary in writing within 10 days of discovery. [40 CFR § 270.30(l)(11)]

I.E.20. Other Requirements

I.E.20.a. Within thirty (30) calendar days after receipt of the final Permit, the Permittee shall submit a certification that the applicant has read the Permit in its entirety and understands all Permit conditions contained herein and agrees to operate the Facility within the conditions of this Permit.

I.E.20.b. All sample collection and analysis shall be performed in compliance with the approved work plan(s), including scheduling of analyses, documentation of sample collection, handling and analysis. Specifically, unless otherwise directed or approved by the Secretary, all corrective action-related work plans of an assessment or investigative nature shall include both a Sampling and Analysis Plan (SAP) and a Quality Assurance Project Plan (QAPP). On a case-by-case basis, as approved by the Secretary, reference may be made to existing project-related SAP/QAPP documentation if applicable to the work to be performed.

I.E.20.c. The Permittee shall ensure its analytical data meet the data quality objectives (DQOs) stated in the corresponding QAPP. DQOs shall be prepared consistent with available EPA guidance documents: Guidance on Systematic Planning Using the Data Quality Objectives Process (EPA QA/G-4, EPA/240/B-06/001, February 2006); Guidance for Developing Quality Systems for Environmental Programs (EPA QA/G-1, EPA/240/R-02-008, November 2002); and any subsequent revisions or editions, or as otherwise directed or approved by the Secretary. QAPPs shall be prepared consistent with EPA guidance document titled EPA Requirements for Quality Assurance Project Plans (EPA QA/R-5, EPA/240/B-01/003, March 2001), and any subsequent revisions or editions, or as otherwise directed or approved by the Secretary.

I.E.20.d. To demonstrate protection of human health and the environment, the detection limit for each hazardous waste constituent shall be less than or equal to the corresponding screening or threshold level as directed or approved by the Secretary. If the detection limit cannot be achieved due to matrix interference or other analytical limitations, provided that appropriate supporting documentation is provided to the Secretary, the affected sample and associated chemical analysis may be exempted from this requirement. Such an exemption does not, however, in any way relieve the Permittee from achieving corrective action objectives.
I.E.20.e. Any deviation from the procedures and methods set forth in these documents must be approved by the Secretary prior to use. The Permittee shall notify the Secretary in writing within five (5) working days of notice or knowledge of a potential deviation from prescribed procedures and methods. Such notice shall provide information as to the nature of the deviation, if known, and outline a proposed investigation to determine whether the sample or results are representative or should not be considered valid. If the results cannot be validated by evaluation of the quality assurance/quality control (QA/QC) procedures, historical data and/or laboratory protocol, the Permittee will re-sample if directed to do so by the Secretary.

I.E.20.f. The Permittee shall use the quality assurance, quality control, and chain-of-custody procedures specified in the QAPPs which are part of the work plan(s), for all sample collection and analysis performed pursuant to this Permit, unless otherwise agreed to by the Secretary.


As outlined in Permit Condition I.H., the Permittee shall submit identified, required, or requested documents to the Secretary within the timeframes established in this Permit, or as otherwise approved, required, or specified by the Secretary. The Secretary may review the document and send a written letter to the Permittee indicating approval, approval with comment, approval with conditions, denial, or such other designation as the Secretary determines appropriate. If the Secretary requires a written response and/or document revision, the Permittee shall provide such in the form and by the due date specified in the Secretary’s letter.

If the Secretary conditionally approves the document, Permittee will be notified of the conditions. The conditionally approved, modified document shall be the approved document.

If the Secretary denies approval of the document, the Secretary may either: (1) notify the Permittee in writing of the document’s deficiencies and specify a due date for submission of a revised document; or (2) revise the document and notify the Permittee of the revisions, and the revised document shall be the approved document.
I.E.22. Inadequate Document Modification – Notification

In the event that the Permittee does not respond to the Secretary’s written request or requirement as described in Section I.E.20., or if the Secretary finds that a document submitted pursuant to this Permit is deficient, the Secretary may send a letter to the Permittee requesting that the Permittee make specific modifications to any document required by this Permit. The letter will set out the deficiencies in the document or work, describe the necessary modifications to address the deficiencies, and provide a timeframe to correct the deficiencies. Failure to timely revise, correct, or otherwise adequately respond to the Secretary’s notice shall be a violation of this Permit and may subject the Permittee to additional tasks, actions, or penalties.

I.E.23. Work Takeover – Notice

If the Permittee fails to timely revise, correct, or otherwise respond to the Secretary’s written requirement for document modification or work performance, or if the Secretary determines the Permittee either: 1) has ceased implementation of any of the work, 2) is seriously or repeatedly deficient or late in its performance of the work, or 3) is implementing the work in a manner which may cause an endangerment to human health or the environment, the Secretary at its discretion, may assume or arrange for a contractor or contractors to assume the performance of all or any portions of the work, as the Secretary determines necessary. If the Secretary determines that such a work takeover is necessary, the Secretary will send the Permittee a Notice of Work Takeover specifying a date upon which the Secretary may assume or arrange for a contractor or contractors to assume the performance of all or any portions of the work. In the event of work takeover, pursuant to K.S.A. 65-3453(a)(4), K.S.A. 65-3453(a)(6) and 65-34,175, the Permittee shall pay for all costs incurred by the Secretary and by any contractor who performs work pursuant to this Paragraph. For purposes of this paragraph, “work” shall mean any condition, task, or schedule required by this Permit.

I.E.24. Additional Tasks May Be Required

The Secretary may determine that tasks or conditions may be required in addition to those specified in the approved work plans or associated documents/reports, as identified in III.V. of this Permit. In the event the Secretary makes such a determination, the Secretary will notify the Permittee in writing that additional tasks or conditions are necessary in order to meet the goals and objectives of this Permit, to assess risk in accordance with Permit Condition III.I.4. for any additional contaminant(s) detected, to conform to applicable laws, and/or to protect public health or safety or the environment. If such tasks are required, they shall be completed as specified by the Secretary and within the timeframes established by the Secretary.
I.E.25. **Failure to Comply**

Failure to comply with any of the terms and conditions of this Permit shall be considered a violation of this Permit and may subject the Permittee to such administrative actions and penalty provisions as set forth in this Permit or otherwise authorized by law as set out in Permit Conditions I.E.1 and I.K.

**I.F. SIGNATORY REQUIREMENT**

All applications, reports or other information submitted to or requested by the Secretary, a designee, or authorized representative, shall be signed and certified in accordance with 40 CFR §§ 270.11 and 270.30(k). All plans, reports, notifications, and other submissions to the Secretary, as required by this Permit, shall also be signed and certified in accordance with 40 CFR §§ 270.11 and 270.30(k). In addition, as required by the Kansas State Board of Technical Professions, pursuant to K.S.A. 74-7001 and K.A.R. 66-6-4, the Permittee shall ensure that all work products that constitute the practices of geology, engineering, architecture, or surveying will be sealed, signed, and dated by a professional licensed by the Kansas State Board of Technical Professions to practice in the State of Kansas.

**I.G. WASTE MINIMIZATION**

I.G.1. Pursuant to 40 CFR § 264.73(b)(9), the Permittee must record and maintain in the Facility operating record, at least annually, a waste minimization certification that:

   I.G.1.a. Specifies the Permittee has a program in place to reduce the volume and toxicity of all hazardous waste and/or hazardous constituents generated by the Facility's operation to the degree determined by the Permittee to be economically practicable; and

   I.G.1.b. The proposed method of treatment, storage or disposal is the practicable method currently available to the Permittee which minimizes the present and future threat to human health and the environment.

I.G.2. The Permittee shall maintain copies of this certification and supporting documents in the Facility operating record as required by Permit Condition I.J.4. and 40 CFR § 264.73(b)(9).

**I.H. REPORTS, NOTIFICATIONS, AND SUBMISSIONS TO THE SECRETARY**

Unless otherwise directed by the Secretary, one (1) hard copy and one (1) editable electronic copy of all reports, notifications, or other submissions which are required by this Permit or by the Secretary shall be reported or sent directly to:

   **Chief, Hazardous Waste Permits Section**
   **Kansas Department of Health and Environment**
All communications, notifications and requests required under this Permit shall be made in writing. Electronic transmission shall be considered in writing and may be utilized provided Permittee provides a hard copy to the Secretary within three (3) working days of the electronic transmission.

I.I. CONFIDENTIAL INFORMATION

In accordance with K.S.A. 65-3447, the Permittee may claim as confidential any information required to be submitted by this Permit. This written claim must be asserted at the time of submission. Such claims shall be evaluated by the Secretary as to whether the claim is satisfactory pursuant to K.S.A. 65-3447.

I.J. DOCUMENTS TO BE MAINTAINED AT THE FACILITY

Throughout the term of this Permit, the Permittee shall maintain at the Facility the following documents, and amendments, revisions, and modifications to these documents:

I.J.1. A copy of this Permit, including all approved permit modifications.

I.J.2. A copy of the approved Permit Application including, but not limited to the following:

   I.J.2.a. Inspection schedules and documents, as required by 40 CFR § 264.15(b) and this Permit.

   I.J.2.b. Contingency Plan as required by 40 CFR § 264.53(a) and this Permit.


   I.J.2.d. Corrective action documents as required by this Permit. These documents must be maintained for at least five (5) years after the Secretary has deemed the corrective action process terminated, corrective measures completed, and/or Corrective Measures Complete.

   I.J.3. Personnel training documents and records as required by 40 CFR § 264.16(d) and (e) and this Permit. The training records of former employees must be kept for at least five (5) years from the date the employee last worked at the Facility.
I.J.4. Operating record, as required by 40 CFR § 264.73 and this Permit.


I.J.6. All other documents required by Permit Condition I.E.11, this Permit, or the Secretary.

I.K. PENALTIES

Failure to comply with the terms of this Permit may subject the Permittee to an administrative and/or civil penalty, a criminal penalty, and/or an action to suspend, revoke, or terminate this Permit. Failure to minimize or mitigate any adverse impact on the environment resulting from noncompliance may increase the severity of administrative or civil penalties. [K.S.A. 65-3441, 65-3444, and 65-3446]

I.L. PROPERTY RIGHTS

This Permit does not convey any property rights of any sort, nor any exclusive privilege. [40 CFR § 270.30(g)]

I.M. DISPUTE RESOLUTION

If the Permittee disagrees with any disapproval, modification, or other decision or directive made by the Secretary pursuant to provisions of the Permit, the Permittee shall follow the dispute resolution procedures outlined in Permit Conditions I.M.1. and I.M.2.

I.M.1. The Permittee shall notify the Secretary in writing, in accordance with Permit Condition I.H., of any disagreement(s) and the basis for it within fifteen (15) calendar days of the Secretary mailing or delivering its disapproval, modification, decision, or directive. The notice shall set forth specific points of the disagreement, the position the Permittee maintains should be adopted as consistent with the requirements of this Permit, the basis for the Permittee’s position, and all matters the Permittee considers necessary for the Secretary’s determination. The Permittee and the Secretary shall then have an additional thirty (30) calendar days from the Secretary’s receipt of the Permittee’s notice to attempt to resolve the dispute. If agreement is reached, the resolution will be reduced to writing by the Secretary and shall become part of this Permit. If the parties are unable to reach agreement within this 30-day period, the Secretary shall issue its final decision on the dispute, in writing. The Permittee reserves its right to appeal any final order or denial to the Secretary. The Secretary shall notify the Permittee in writing of the final resolution of the dispute, and the reasons for this resolution. The final resolution of such dispute shall be incorporated into and made an enforceable part of this Permit.
I.M.2. The existence of a dispute as described herein and the Secretary’s consideration of such matters placed in dispute shall not excuse, toll, or suspend any obligation or deadline required pursuant to this Permit, that is not the subject of dispute, during pendency of the dispute resolution process.

I.N. LAND DISPOSAL RESTRICTIONS

The Permittee shall comply with all regulations implementing the land disposal restrictions required in 40 CFR Part 268, as adopted by KAR 28-31-268. The Permittee also must comply with regulations implementing the land disposal restrictions that are promulgated after the effective date of this permit, pursuant to 40 CFR § 270, and which are more stringent than KAR 28-31-268 as these requirements are self-implementing provisions of HSWA. The Permittee is not subject to the land disposal restrictions if the applicable treatment standard is met, the waste is exempt under 40 CFR § 268.1(c), the waste is subject to a variance, or any other exemption in 40 CFR Part 268 applies.
SECTION II - GENERAL FACILITY CONDITIONS

II.A. DESIGN AND OPERATION OF FACILITY

The Permittee shall design, construct, maintain, and operate the Facility to minimize the possibility of a fire, explosion or any unplanned sudden or non-sudden Release to air, soil, or surface water which could threaten human health or the environment. [40 CFR § 264.31] This condition includes adherence to operating conditions and procedures, and emergency shutdown procedures specified in the Permit Application and in this Permit.

II.B. DEED REQUIREMENTS

II.B.1. Notice in Deed to Property

Pursuant to K.A.R 28-31-264a(b), the Facility property owner shall record, in a form acceptable to or as provided by the Secretary and in accordance with Kansas law, a notice with the register of deeds in the county where the property is located. The notice shall include the following information:

a. The land has been used to manage hazardous waste;
b. All records regarding permits, closure, or both are available for review at KDHE.

If Post closure care is required, the following information and requirements shall also apply:

a. The land use is restricted under 40 CFR Part 264 Subpart G regulations, and;
b. Any other information required by local, state, or federal law.

Upon certification of closure, as specified in 40 CFR § 264.119(b), the Permittee shall meet all recording and certification requirements in 40 CFR § 264.119 and, if applicable, meet the notation requirements in 40 CFR § 264.19(c).

II.B.2. Restrictive Covenant and Easement

Pursuant to K.A.R 28-31-264a(c), as required by the Secretary, the Facility property owner shall file a Restrictive Covenant and/or Easement, in a form acceptable to or as provided by the Secretary, with the register of deeds in the county where the property is located. The Restrictive Covenant shall specify the uses that may be made of the property and shall include all requirements of K.A.R. 28-31-264a(c)(1). Any Easements shall meet the requirements of K.A.R. 28-31-264a(c)(2). Within thirty (30) days of the Secretary requiring the Permittee to record a Restrictive Covenant and/or Easement, the Permittee shall submit to the Secretary a copy of the recorded instrument with the notarized signature of
the applicant and the seal of the register of deeds indicating the Restrictive Covenant and/or Easement has been recorded.

II.B.3. Hazardous Waste Imports

The permittee shall notify the Secretary in writing at least four weeks in advance of the date the Permittee expects to receive hazardous waste from a foreign source, as required by 40 CFR § 264.12(a). Notice of subsequent shipments of the same waste from the same foreign source during the same calendar year is not required.

The Permittee shall follow the requirements for importers of hazardous waste in 40 CFR Part 262, Subparts F and H, if the Permittee acts as the hazardous waste importer.

II.B.4 Hazardous Waste from Off-Site Sources

When the Permittee is to receive hazardous waste from an off-site source (except where the Permittee is also the generator) he must inform the generator in writing that he has the appropriate permits and will accept the waste the generator is shipping. The Permittee must keep a copy of this written notice as part of the operating record. [40 CFR § 264.12(b)]

II.B.5. Transferring Ownership or Operation

In accordance with Permit Condition I.E.14, before transferring ownership or operation of the Facility, the owner or operator must notify the new owner or operator in writing of the requirements of K.A.R. 28-31-124a(b), 40 CFR Parts 264 and 270, and this Permit. [40 CFR § 264.12(c)]

II.C. GENERAL WASTE ANALYSIS

The Permittee shall follow the waste analysis procedures required by 40 CFR § 264.13, as described in the Waste Analysis Plan (WAP), Section C of the approved Permit Application. All laboratory analysis shall be conducted in accordance with the Test Methods for Evaluating Solid Waste: Physical/chemical Methods, EPA Publication SW-846, or equivalent methods approved by the Secretary. At a minimum, the Permittee shall maintain proper functioning instruments, use approved sampling and analytical methods, verify the validity of sampling and analytical procedures, and perform correct calculations for nonreactive hazardous waste. If the Permittee uses a contract laboratory to perform the analyses, then the Permittee shall inform the laboratory in writing that it must operate under the waste analysis conditions set forth in this Permit. A copy of the written notification between the Permittee and its contract laboratory must be maintained at the Facility. All analytical data provided to comply with conditions of this Permit shall be performed by a laboratory certified for the analysis by the Secretary.
II.D.  SECURITY

If applicable, the Permittee shall comply with the security provisions of 40 CFR § 264.14 and, where specified, the Security Procedures in Section F.1 of the Permit Application.

II.E. GENERAL INSPECTION REQUIREMENTS

The Permittee shall follow the inspection schedules set out in Section F.2 and Table F-1 of the Permit Application. The Permittee shall remedy any deterioration or malfunction discovered by an inspection as required by 40 CFR § 264.15(c). Records of inspection shall be kept as required by 40 CFR § 264.15(d).

II.E.1. Inspection for Malfunctions and Deterioration

The Permittee shall inspect the Facility as required by 40 CFR § 264.15 and the inspection schedules set out in Section F.2 and Table F-1 of the Permit Application, for malfunctions and deterioration, operator errors, and discharges which may be causing or may lead to: (1) Release to the environment, or (2) a threat to human health.

II.E.2. Schedule of Inspections

The Permittee shall follow the written inspection schedules, set out in Section F.2 and Table F-1 of the Permit Application for the inspection of monitoring and remediation equipment, safety and emergency equipment, security devices, and operating, remediation, and structural equipment that are for the purpose of preventing, detecting, or responding to environmental or human health hazards and for compliance with 40 CFR § 264.15. The Permittee shall keep this schedule at the Facility.

II.E.3. Records of Inspections

The Permittee shall record inspections required by Permit Condition II.E.2. in an inspection log or summary. The log or summary shall be kept for at least three (3) years from the date of inspection. At a minimum, the items to be inspected must include those identified in 40 CFR § 264.15, as applicable, and in the inspection plans contained in Section F.2 and Table F-1 of the Permit Application. The logs must include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

II.E.4. Remedial Action Resulting from Inspections

The Permittee shall remedy any observed deterioration or malfunction of equipment or structures to ensure that the problem does not lead to an
environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action must be taken immediately. [40 CFR § 264.15(d)]

II.F. PERSONNEL TRAINING

The Permittee shall conduct personnel training as required by 40 CFR § 264.16. This training shall be in accordance with Section H of Permit Application. The Permittee shall maintain at the Facility the training documents and records required by 40 CFR § 264.16(d) for the amount of time required by 40 CFR § 264.16(e).

II.G. LOCATION STANDARDS

The Facility is not located within the 100-year flood-plain, thus no permit conditions are required with respect to location standards in 40 CFR § 264.18(b)(1).

In addition, the Facility is located in Wyandotte County, Kansas, which is not listed in Appendix VI of 40 CFR § 264. Therefore, no demonstration for the seismic standards of 264.18(a) is required.

II.H. PREPAREDNESS AND PREVENTION

II.H.1. Required Equipment

At a minimum, the Permittee shall maintain at the Facility the safety and emergency equipment set forth in Section F.3.a of the Permit Application, as required by 40 CFR § 264.32.

II.H.2. Testing and Maintenance of Equipment

The Permittee shall test and maintain the equipment specified in Permit Condition II.H.1., as required to assure its proper operation in time of emergency. [40 CFR § 264.33]

II.H.3. Access to Communications or Alarm System

The Permittee shall maintain immediate access to the communications or alarm system, as required by 40 CFR § 264.34 and Section F.3.a.6 of the Permit Application.

II.H.4. Arrangements with Local Authorities

The Permittee shall make and maintain arrangements with state and local authorities, as required by 40 CFR § 264.37. If state or local officials refuse to enter into preparedness and prevention arrangements, the Permittee must
document the refusal in the operating record and shall notify the Secretary within twenty (20) days of such refusal.

II.I.  RECORDKEEPING AND REPORTING

In addition to the recordkeeping and reporting requirements specified in this Permit, the Permittee shall do the following:

II.I.1.  Operating Record

The Permittee shall maintain a written operating record at the Facility, in accordance with 40 CFR § 264.73.

II.I.2.  Availability, Retention, and Disposition of Records

The Permittee shall comply with the availability, maintenance, retention, and disposition requirements of all records in accordance 40 CFR § 264.74.


The Permittee shall comply with the biennial report requirements of 40 CFR §§ 264.75 and 270.30(l)(9).

II.I.4.  Manifests

Whenever a shipment of hazardous waste is initiated from the Facility, the Permittee shall comply with the generator requirements in K.A.R. 28-31-4 and 40 CFR § 264.71(c).

II.I.5.  Manifest Discrepancy Report

If a significant discrepancy in a manifest is discovered, the Permittee must attempt to reconcile the discrepancy. If not resolved within fifteen (15) days, the Permittee must submit a letter report, including a copy of the manifest, to the Secretary. (See 40 CFR § 264.72) [40 CFR § 270.31(1)(7)]


A report must be submitted to the Secretary with fifteen (15) calendar days of receipt of unmanifested hazardous waste. [40 CFR § 264.76 and 40 CFR 270.30(1)(8)]
II.J. CONTINGENCY PLAN

II.J.1. Implementation of Plan

The Permittee shall immediately carry out the provisions of Section G of the approved Permit Application, whenever there is a fire, explosion, or Release which could threaten human health or the environment.

II.J.2. Copies of Plan

Copies of the contingency plan and all revisions to the plans must be:

II.J.2.a. Maintained at the Facility; and

II.J.2.b. Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services. [40 CFR § 264.53]

II.J.3. Amendments to Plan

The Permittee shall review and immediately amend, if necessary, the Contingency Plan, as required by 40 CFR § 264.54. Amendments to the Contingency Plan are subject to the permit modification provisions of 40 CFR §§ 270.41 and 270.42.

II.J.4. Emergency Coordinator

A trained Emergency Coordinator shall be available at all times in case of an emergency, as required by 40 CFR § 264.55. The Emergency Coordinator shall have the authority to commit the resources needed to carry out the contingency plan.

The names, addresses, and telephone numbers of all persons qualified to act as Emergency Coordinators shall be listed in the Contingency Plan. [40 CFR § 264.52(d)]

II.J.5. Emergency Procedures

Whenever there is an imminent or actual emergency, the Permittee shall immediately comply with the requirements of 40 CFR § 264.56.
II.K. GENERAL CLOSURE REQUIREMENTS

II.K.1. Definitions

For purposes of this Section, the definitions of “Final Closure” and “Partial Closure” in 40 CFR § 260.10 shall apply.

II.K.2. Performance Standard

The Permittee shall close the Facility as required by 40 CFR §§ 264.111, 264.112(a) and (b), 264.178, 264.197, and 264.603. Permittee will comply with the KDHE-approved Closure Plan(s) contained in Section I of the Permit Application.

II.K.3. Amendment to Closure Plan

The Permittee shall amend the Closure Plan(s) in accordance with 40 CFR § 264.112(c), whenever necessary, or as required by the Secretary. Amendments of the closure plans are subject to the permit modification requirements of 40 CFR § 270.42.

II.K.4. Notification of Closure

The Permittee shall notify the Secretary in writing at least forty-five (45) days prior to the date on which they expect to begin any closures of HWMU’s or final closure of the Facility, as required by 40 CFR § 264.112(d).

II.K.5. Time Allowed for Closure

Within ninety (90) days after receiving the final volume of hazardous waste, the Permittee shall treat or remove from the HWMU(s) or Facility all hazardous waste and shall complete closure activities in accordance with 40 CFR § 264.113 and the applicable Closure Plan for the HWMU(s). A longer period of time may be approved by the Secretary if the Permittee meets the requirements in 40 CFR § 113(a).

II.K.6. Disposal or Decontamination of Equipment, Structures, and Soils

The Permittee shall decontaminate and/or dispose of all contaminated equipment, structures, and soils as required by 40 CFR § 264.114 and the applicable Closure Plan for the HWMU(s).
II.K.7.  Certification of Closure

The Permittee and an independent Kansas Professional Engineer shall certify that HWMU’s and/or the Facility have been closed in accordance with the approved Closure Plans, as required by 40 CFR § 264.115. The Permittee shall meet the timing and mailing requirements in 40 CFR § 264.115.

II.K.8.  Survey Plat

The Permittee shall submit a survey plat to the local authorities specified in 40 CFR § 264.116 and to the Secretary no later than the submission of certification of closure of the units and the SWMUs identified in Section J of the Permit Application, in accordance with 40 CFR § 264.116.

II.L.  GENERAL POST-CLOSURE REQUIREMENTS {RESERVED}

II.M.  FINANCIAL REQUIREMENTS


II.M.1.  Cost Estimates for Closure

II.M.1.a. The Permittee’s current cost estimate for closure, prepared in accordance with 40 CFR § 264.142(a), are contained in the Closure Cost Estimate, Section I.4 and Table I-4 of the Permit Application.

II.M.1.b. The Permittee shall adjust the closure cost estimate annually for inflation within sixty (60) days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with 40 CFR § 264.143 and submit them to the Secretary for review and approval. Each cost estimate shall be based on the plan implementation cost, in current dollars, assuming that a third party performs the work.

If using the financial test and corporate guarantee demonstration, the Permittee shall adjust the closure cost estimate for inflation within thirty (30) days after the close of the firm's fiscal year and before submission of updated information to the Secretary.

The adjustments shall be made by either recalculating the maximum cost of closure or by using an inflation factor derived from the most current quarterly Implicit Price Deflator for Gross Domestic Product
II.M.1.c. The Permittee shall revise the cost estimate in the Permit Application whenever there is a change in the Facility’s Closure Plan as required by 40 CFR § 264.142(c) and Permit Condition II.K. and II.L. This type of revision is subject to the permit modification requirements of 40 CFR §§ 270.41 and 270.42 and Permit Condition I.B.1. A permit modification will not be required for the annual inflation costs referenced in Permit Condition II.M.1.b.

II.M.1.d. The Permittee shall maintain at the Facility the latest adjusted closure cost estimate as required by 40 CFR § 264.142(d) and Permit Condition I.J.5.

II.M.2. Cost Estimate for Corrective Action

II.M.2.a. The Permittee shall prepare and submit a cost estimate for the completion of any corrective action required in order to provide financial assurance for completion of corrective action as required under 40 CFR §§ 264.90(a)(2) and 264.101. Such cost estimate shall be based upon the cost of assessment of all affected media and the design, installation, operation, inspection, monitoring, and maintenance of the corrective action system to meet the requirements of 40 CFR § 264.101 and this Permit to include any treatment system necessary for all affected media. Such cost estimate will include the full cost (100 percent) of corrective action as defined by Permit Condition I.E.5. of this Permit. The cost estimate will also cover the total third-party cost of implementing the corrective action, including any necessary long-term corrective action costs. Third-party costs are as described in 40 CFR § 264.142(a)(2) and shall include all direct costs and indirect costs, including contingencies, as described in EPA Directive No. 9476.00-6 (November 1986), Volume III, Chapter 10. The cost estimate shall contain sufficient details to allow it to be evaluated by the Secretary. The Secretary may prescribe the specific form of the cost estimate to be completed by the Permittee. The cost estimate shall not incorporate any salvage value that may be realized from the sale of wastes, Facility structures or equipment, land or other assets associated with the Facility.

The Secretary shall approve the specific type of financial instrument/assurance, the method of calculation, and the term of the financial assurance which the Secretary deems to be protective of public health and the environment.
II.M.2.b. The Permittee shall adjust the corrective action cost estimate for inflation within sixty (60) days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with 40 CFR § 264.101.

If the Secretary approves the Permittee’s use of the financial test and corporate guarantee demonstration, the Permittee shall adjust the corrective action cost estimate for inflation within thirty (30) days after the close of the firm's fiscal year and before submission of updated information to the Secretary.

The adjustment shall be made by either recalculating the maximum cost of corrective action or by using an inflation factor derived from the most current quarterly Implicit Price Deflator for Gross Domestic Product published by the U.S. Department of Commerce in its Survey of Current Business.

II.M.2.c. The Permittee shall revise the corrective action cost estimate whenever there is a change in the Facility’s corrective action as required by 40 CFR § 264.101. This type of revision is subject to the permit modification requirements of 40 CFR §§ 270.41 and 270.42 and Permit Condition I.B.1.

II.M.2.d. The Permittee shall keep at the Facility the latest adjusted corrective action cost estimate as required by Permit Condition I.J.5.

II.M.3. Facility Financial Assurance

The Permittee shall demonstrate continuous compliance by providing documentation of financial assurance, as required by 40 CFR § 264.101 and 40 CFR § 264.143 in at least the amount of the closure and corrective action cost estimate required by Permit Conditions II.M.1 and II.M.2. The mechanism for financial assurance for corrective action at SWMUs and AOCs may be one that is described and allowable under 40 CFR §§264.140 through 264.151, Subpart H, subject to the Secretary’s discretion. The Permittee shall submit for approval annually, and maintain documentation at the Facility, demonstrating that the Permittee’s financial assurance is in accordance with applicable regulations, this Permit, and the approved Cost Estimates. Changes in financial assurance mechanisms and coverage amount must be approved by the Secretary pursuant to 40 CFR §§ 264.101 and 264.143. Financial assurance shall be in compliance with the applicable subparagraphs of K.A.R. 28-31-264a(a).
II.M.4. Liability Requirements

The Permittee shall maintain liability coverage in accordance with 40 CFR § 264.147.

II.M.5. Incapacity of Owners or Operators, Guarantors, or Financial Institutions

The Permittee shall comply with 40 CFR § 264.148, whenever necessary.

II.M.6. Monitoring Fees

If applicable, the Permittee shall pay the annual monitoring fee in accordance with the current, effective version of K.A.R. 28-31-10.

II.M.7. Cost Recovery for Clean-up/Corrective Action

The Permittee shall reimburse KDHE costs as defined herein, pursuant to the terms and conditions of this Permit under 270.32(b)(2) and K.S.A. 65-3453(a)(4) and (6), and K.S.A. 65-3455, for all clean-up/corrective action activities performed under this Permit.
SECTION III – CORRECTIVE ACTION FOR SWMUs AND AOCs

The objective of the corrective action program at a hazardous waste management facility is to evaluate the nature and extent of Releases, and if necessary, to implement corrective measures to protect human health and the environment. The Secretary may require corrective action, as specified in the following permit conditions, for any previously or newly identified, known or suspected SWMU, AOC, or Release pursuant to the following:

- 40 CFR § 264.101 which requires that owners and operators of facilities that treat, store, or dispose of hazardous waste must institute corrective action requirements associated with SWMUs as specified in a permit, and that such permit shall include schedules of compliance for corrective action work and assurances of financial responsibility for completing corrective action;
- 40 CFR § 270.32(a) which authorizes the Secretary to establish permit conditions as required by applicable regulations and, on a case by case basis, include conditions for the duration of permits, schedules of compliance, and monitoring; and
- 40 CFR § 270.32(b)(2) which provides for establishment of permit conditions as the Secretary determines are necessary to protect human health and the environment.

All corrective action activities contemplated or performed pursuant to Section III of this Permit shall be conducted subject to the written approval of the Secretary, in accordance with the terms of this Permit, and shall be consistent with the standards, specifications, and schedules approved by the Secretary or as contained in the attachments to this Permit (Attachments). Unless otherwise specified in this Permit, and/or as approved or directed by the Secretary, corrective action activities will be accomplished through implementation of the process steps detailed in Permit Conditions III.H. through III.M. All documents submitted to the Secretary pursuant to this Permit shall be considered draft documents until approved by the Secretary. Upon the Secretary’s approval, the Permittee shall implement the tasks detailed in the subject work plan in accordance with the corresponding implementation schedule. Permittee’s failure to implement approved tasks, plans, or schedules shall be a violation of this Permit.

If the Secretary determines that further actions beyond those provided by Section III of this Permit or changes to Permit conditions are warranted, the Secretary shall modify the Permit conditions in Section III, in accordance with Permit Condition I.B.1.

III.A. CORRECTIVE ACTION REQUIREMENTS

III.A.1. Corrective Action at the Facility

The Permittee shall institute corrective action as necessary to protect human health and the environment for all Releases from any SWMU or AOC at the Facility, regardless of the time the waste was placed or was managed in such unit(s). [40 CFR § 264.101(a)]
III.A.2. Corrective Action beyond the Facility Boundary

The Permittee shall institute corrective action beyond the Facility property boundary, where necessary to protect human health and the environment, unless the Permittee demonstrates to the Secretary’s satisfaction that, despite the Permittee’s best efforts, the Permittee was unable to obtain the necessary permission to undertake such actions. The Permittee is not relieved of responsibility to clean up a Release that has migrated beyond the Facility boundary where access is denied. On-site measures to address such Releases will be determined on a case-by-case basis. Permittee must provide assurances of financial responsibility for such corrective action. [40 CFR § 264.101(c)] References to “Facility” in this Permit shall include “Site” if a release has migrated beyond the Facility boundary.

III.A.3. Additional Corrective Action Requirements

In addition to corrective action requirements under Permit Conditions III.A.1. and III.A.2., the Permittee shall institute corrective action in accordance with all terms and conditions established in this Permit, as the Secretary has determined are necessary to protect human health and the environment. [40 CFR § 270.32(b)(2)]

III.B. APPLICABILITY

The Permit conditions of this section apply to:

III.B.1. The SWMUs and AOCs identified by the initial RFA, the Permit Application, any subsequent investigations, or by other means, are listed in Section III.C. and Attachment 4. In addition to the conditions specified in this Permit, all currently known SWMUs and AOCs identified herein shall also be addressed to mitigate potential exposures at the point of closure of operations at SWMUs or AOCs, or in total at the time of closure of the Facility operations, whichever occurs first. Additionally, if new information becomes available to indicate an imminent threat to human health or the environment exists, or off-site contaminant migration is occurring or is likely to occur, the Secretary may direct the Permittee in writing to immediately conduct additional corrective action activities.

III.B.2. Any additional SWMUs or AOCs or Releases discovered from SWMUs or AOCs during the course of groundwater monitoring, field investigations, environmental audits, or other means. As used in this Section of the Permit, the terms "discover", "discovery", or "discovered" refer to the date on which the Permittee or a KDHE representative either: (1) visually observes evidence of a new SWMU/AOC/Release; (2) visually observes evidence of a previously unidentified Release to the environment; or (3) receives information which suggests the presence of a new Release to the environment.
III.C. IDENTIFICATION OF SWMUS AND AOCS

On November 10, 1987, a RCRA Facility Assessment (RFA) was completed for the facility, which identified two (2) solid waste management units (SWMUs). The two SWMUs identified in the RFA consisted of a 500-gallon underground product recovery tank that had been removed and a water and mixed solvent disposal site. An additional six (6) SWMUs and three (3) AOCs were identified during subsequent RCRA Facility Investigations (RFI). Attachment 4 identifies and provides the current status for all former and new SWMUs and AOCs. This list allows all identified SWMUs and AOCs, regardless of when they were initially identified, to be fully accounted for in this Permit. Attachment 4 also identifies the outstanding, required activities for each SWMU and AOC, as summarized in Sections III.G through III.L.

A map identifying the location of each SWMU and AOC is shown in Attachment 3.

III.D. DESCRIPTION OF PAST CORRECTIVE ACTIONS AND/OR ON-GOING GROUNDWATER MONITORING FOR REGULATED UNITS

The Facility has not operated any regulated units as defined by 40 CFR § 264.90(a). Previous corrective action activities approved by EPA included various investigations to identify the nature and extent of both soil and groundwater contamination, a CMS study identified air sparging and soil vapor extraction (AS/SVE) as the remedial technology best suited to address VOC contamination in soil and groundwater at the facility; and, a CMI plan to operate and monitor the progress and efficacy of the proposed AS/SVE system in remediating the contaminated soil and groundwater. On January 6, 2009 EPA issued a Final Decision and Response to Comments that modified the facility’s permit to indicate corrective action at the facility was complete without controls and required the facility to submit a certification of corrective action complete. On November 10, 2009, EPA approved the “Certification of Corrective Action Complete” report. Attachment 4 includes a more detailed timeline summary of corrective action activities performed at the facility, including groundwater monitoring.

The Secretary is accepting the previous corrective action and groundwater monitoring measures as adequate and is not requiring additional corrective actions or groundwater monitoring for any of the SWMU(s) or AOC(s) identified with a status of No Further Action in Attachment 4.

III.E. NOTIFICATION AND ASSESSMENT REQUIREMENTS FOR NEWLY-DISCOVERED OR SUSPECTED NEW SWMUS AND AOCS

III.E.1. No later than fifteen (15) calendar days from discovery, the Permittee shall notify the Secretary in writing of any newly-discovered or suspected new SWMU or AOC as discovered under Permit Condition III.B.2. The notification shall include, at a minimum, a unique sequential identification number, the location of
the newly-discovered or suspected new SWMU or AOC in relation to other SWMUs and AOCs, and all available information pertaining to the nature of the Release including, but not limited to, suspected or known wastes, hazardous constituents or pollutants released, media affected, magnitude of Release, and other relevant information.

III.E.2. The Permittee shall prepare and submit to the Secretary, within thirty (30) calendar days of notification provided per Permit Condition III.E.1., a SWMU and AOC Preliminary Assessment Report (PAR) for each SWMU and AOC identified under Permit Condition III.B.2. At a minimum, the PAR shall provide the following information as applicable:

a. Unique sequential identification for the SWMU or AOC;
b. Location of unit(s) in relation to SWMUs or AOCs on a topographic map of appropriate scale such as required under 40 CFR § 270.14(b)(19);
c. Designation of type and function of unit(s);
d. General dimensions, capacities and structural description of unit(s) and supplying any available plans/drawings;
e. Period during which the unit(s) was operated;
f. Past and present operating practices;
g. Previous uses of the area occupied by the SWMU or AOC;
h. Amounts and specifications of waste managed;
i. Drainage areas and/or drainage patterns near the SWMU or AOC;
j. Physical and chemical properties of all wastes, including any available data on hazardous constituents in the wastes, that have been managed at/in the unit(s) to the extent available; and,
k. All available information pertaining to any Release from such unit(s), including results of any sampling and analysis conducted, such as groundwater, soil, air, surface water, and/or sediment.
l. Recommendations, if any, for additional sampling/data collection, investigation, and/or interim measure activities.

III.E.3. Based on the information presented in the PAR for each SWMU and AOC identified under Permit Condition III.B.2., the Secretary shall determine the need for and timing of confirmatory sampling, investigation, and/or interim measures for each newly-identified or suspected SWMU and AOC. If the Secretary determines that such additional corrective action-related activities are necessary, the Permittee shall be required to prepare and implement a work plan as outlined in Permit Condition III.H., III.I., and/or III.J. The Secretary will notify the Permittee in writing of the final determination as to the status of the newly-identified or suspected SWMU and AOC and any specific corrective action requirements.
III.F. NOTIFICATION REQUIREMENTS FOR NEWLY-DISCOVERED RELEASES FROM PREVIOUSLY IDENTIFIED SWMUS AND AOCs

III.F.1. Within fifteen (15) calendar days from discovery, or from the time the Permittee should have reasonably become aware of the circumstances, the Permittee shall notify the Secretary in writing of any newly-discovered Releases(s) from previously-identified SWMUs or AOCs, as described in Permit Conditions III.B.1. and III.B.2. The notification shall include, at a minimum, a unique sequential identification number, location of the newly-identified or suspected new SWMU or AOC, and all available information pertaining to the nature and extent of the Release, including media affected, hazardous constituent(s) or pollutant(s) Released, magnitude of Release, and other relevant information.

III.F.2. Based on the information presented in the Permittee’s notification, the Secretary shall determine the need for and timing of confirmatory sampling, investigation and/or interim measures for each newly-discovered Release(s) from previously-identified SWMUs and AOCs. If the Secretary determines that such additional corrective action-related activities are necessary, the Permittee shall be required to prepare and implement a plan as outlined in Permit Conditions III.H., III.I. and/or III.J., and the Secretary will notify the Permittee in writing of the final determination as to the status of the newly-discovered Release(s) from previously identified SWMUs and AOCs and any specific corrective action requirements.

III.G. DESCRIPTION OF CURRENT CONDITIONS REPORT

III.G.1. Within forty-five (45) calendar days from the date of a written request from the Secretary, the Permittee shall submit to the Secretary a Description of Current Conditions (DCC) Report providing background information pertinent to the Facility. The DCC Report shall include information gathered during any previous investigations, inspections, corrective action/interim measure activities, and any other relevant data, to facilitate identification of potential contamination sources and to characterize current Facility conditions. In addition, the DCC Report shall determine if current human exposures and migration of contaminated groundwater are under control. Specifically, the DCC Report must evaluate whether current human exposure to environmental contamination is occurring at unacceptable levels and assess migration of existing groundwater contaminant plumes to verify whether or not the plumes are expanding or adversely affecting nearby surface water bodies.

III.G.2. The DCC Report shall meet the requirements of Attachment 7, Description of Current Conditions Report Scope of Work, unless otherwise directed or approved by the Secretary in writing. The Permittee shall provide sufficient written justification for any omissions or deviations from the minimum requirements of Attachment 7. Such omissions or deviations are subject to the approval of the Secretary.
III.H. CONFIRMATORY SAMPLING (CS)

III.H.1. CS Work Plan

Within forty-five (45) calendar days of the Secretary’s written notification, the Permittee shall prepare and submit a Confirmatory Sampling (CS) Work Plan to the Secretary for each newly-identified or suspected SWMU or AOC per Permit Condition III.E.3., or for each newly-discovered Release from previously-identified SWMUs and AOCs per Permit Condition III.F.2. The CS Work Plan shall include:

a. Schedule(s) of implementation;
b. Sampling and analysis program description of specific actions and parameters necessary to determine if a Release to the environment has occurred, or is occurring, and to determine whether the Release is harmful to human health or the environment;
c. Discussion of DQOs;
d. QAPP to demonstrate the sampling and analysis program is capable of yielding representative samples of all affected or potentially affected environmental media, such as groundwater, surface and subsurface soil, sediment, surface water, and/or air; and
e. Available existing data, with appropriate supporting documentation for the Secretary’s consideration, to partly or wholly satisfy the CS requirement.

III.H.2. CS Approval

The CS Work Plan must be approved by the Secretary, in writing, prior to implementation. The Secretary will specify the start date of CS Work Plan implementation in the written approval letter. The Secretary may approve, deny, or conditionally approve the CS Work Plan consistent with Permit Condition III.U.

III.H.3. CS Implementation

The Permittee shall implement the Confirmatory Sampling in accordance with the approved CS Work Plan.

III.H.4. CS Notification

The Permittee shall provide notification of all CS-related field activities in accordance with Permit Condition III.T.
III.H.5. CS Report

The Permittee shall prepare and submit to the Secretary in accordance with the, schedule in the approved CS Work Plan, a CS Report summarizing confirmatory sampling activities and identifying all SWMUs and AOCs where Release into the environment is confirmed. The CS Report shall include all data, including raw data, and a summary and analysis of the data that supports the above determination. If submission of the CS Report coincides with submission of the RFI Report, then the CS Report and the RFI Report may be combined into one submission.

III.H.6. Additional Activities

Based on the results of the CS Report, the Secretary shall determine the need for further investigation, interim measures, and/or corrective measure activities to address the SWMUs or AOCs covered in the CS Report. If the Secretary determines that such activities are needed, the Permittee shall be required to prepare and implement a plan for such as outlined in Permit Condition III.I., III.J., and/or III.K. If applicable, the Secretary will notify the Permittee of any further corrective action required, including remedial action, monitoring and/or institutional controls related to the specific SWMUs or AOCs being evaluated.

III.1. RCRA FACILITY INVESTIGATION (RFI)

A February 19, 1988 SWMU Release Determination Plan (SRDP) and RCRA Facility Investigation (RFI) was approved by EPA and KDHE September 19, 1988. The scope of the RFI included soil sampling associated with the two initially identified SWMU’s in permit condition III.C. The investigation discovered significant concentrations of halogenated and aromatic VOCs, which resulted in multiple supplemental investigations that discovered groundwater was also contaminated with VOCs. On September 22, 2000, EPA approved the final supplemental RFI report and instructed the facility to submit a corrective measures study. A more detailed timeline of RFI activities can be found in Attachment 4. The Secretary is accepting the previous RFI(s) as adequate and is not requiring additional RFI(s) for any of the SWMU(s) or AOC(s) identified with a status of No Further Action in Attachment 4.

If later required, the Permittee shall conduct an RFI to investigate SWMUs and AOCs, as required by the Secretary, to determine the nature and extent of known and suspected Releases from each SWMU and AOC at the Facility identified in accordance with Permit Condition III.B., and to gather data to facilitate risk management decisions and support development of a Corrective Measures Study (CMS) or Presumptive Remedy Design Concept. The Permittee shall conduct the RFI in accordance with the approved RFI Work Plan, competed per current EPA guidance documents (RCRA Facility Investigation Guidance, Volumes I through IV, or equivalent). The RFI Work Plan(s) shall meet the
requirements of Attachment 8, RCRA Facility Investigation Scope of Work, unless otherwise directed or approved by the Secretary. The Permittee shall conduct the RFI for each SWMU and AOC, in accordance with the Facility Submission Summary in Section III.V of this Permit.

### III.I.1. RFI Work Plan

#### III.I.1.a. The Permittee shall prepare and submit to the Secretary, within sixty (60) calendar days of written notification by the Secretary, an RFI Work Plan for those SWMUs and AOCs identified under Permit Condition III.B. or III.C., or as otherwise directed by the Secretary. The RFI Work Plan(s) shall be developed to meet all requirements of Permit Condition III.I. and shall meet the requirements of Attachment 8, RFI Work Plan, unless otherwise directed or approved by the Secretary. Specifically, the RFI Work Plan(s) shall describe in detail all proposed activities and procedures to be conducted and the overall technical and analytical approach to completing all actions necessary to achieve investigation objectives.

#### III.I.1.b. The RFI Work Plan(s) shall include schedules of implementation and completion of specific actions necessary to delineate and fully characterize the nature and lateral and vertical extent of contamination for all known and suspected contaminants of concern (COCs) for all affected or potentially affected environmental media at the Site. As a component of delineation/characterization efforts, the RFI is required to also fully assess any and all secondary contamination issues, such as those resulting from mobilization of naturally-occurring elements/substances in the presence of site-related contamination, degradation byproducts, or other secondary issues required by the Secretary.

The Permittee must provide sufficient justification and supporting documentation, for the Secretary’s approval, that a Release is highly unlikely to occur or that it has already been characterized, if a unit (i.e. SWMU, HWMU, AOC or Release) or a media/pathway associated with a unit, such as groundwater, surface water, soil, subsurface gas, or air, is not included in the RFI Work Plan(s). Such deletions of a unit, media or pathway from the investigation must be approved by the Secretary. The Permittee shall provide sufficient written justification for any omissions or deviations from the minimum requirements of Attachment 8. Such omissions or deviations must be approved by the Secretary. In addition, the scope of the RFI Work Plan(s) shall include all investigations necessary to ensure compliance with 40 CFR § 264.101(e).
III.I.1.c. The RFI Work Plan(s) must be approved by the Secretary, in writing, prior to implementation. The Secretary shall specify the start date of the RFI Work Plan schedule in the letter approving the RFI Work Plan(s). The Secretary may approve, deny, or conditionally approve the RFI Work Plan consistent with Permit Condition III.U.

III.I.2. RFI Implementation

III.I.2.a. The Permittee shall implement the RFI(s) in accordance with the approved RFI Work Plan(s) and Attachment 8.

III.I.2.b. The Permittee shall provide notification of all RFI-related field activities in accordance with Permit Condition III.T.

III.I.3. RFI Reporting

III.I.3.a. The Permittee shall prepare and submit to the Secretary Draft and Final RFI Report(s) for the investigations conducted pursuant to the RFI Work Plan(s) submitted under Permit Condition III.I.1. The Draft RFI Report(s) shall be submitted to the Secretary for review in accordance with the schedule in the approved RFI Work Plan(s). The Final RFI Report(s) shall be submitted to the Secretary within thirty (30) calendar days of transmittal of the Secretary’s final comments on the Draft RFI Report. The RFI Report(s) shall include an analysis and summary of all required investigations of SWMU's and AOCs and their results. The summary shall describe the type and extent of contamination at the Facility, including sources and migration pathways, identify all hazardous constituents present in all media, and describe actual or potential receptors. The RFI Report(s) shall also describe the extent of contamination, qualitative and quantitative, in relation to background levels indicative of the area. If the Draft RFI Report is a summary of the initial phase investigatory work, the Report shall include a work plan for the final phase investigatory actions that are required based on the initial findings. Implementation of any final phase work plan, as approved by the Secretary, shall be carried out in accordance with Permit Condition III.I.2. The objective of this requirement shall be to ensure that the investigation data are sufficient in quality and that quality assurance procedures have been followed, and sufficient in quantity to describe the nature and extent of contamination, potential threats to human health and/or the environment, and to support a CMS, if necessary.

III.I.3.b. The Permittee shall prepare and submit to the Secretary, along with the Draft and Final RFI Report(s), screening levels for each of the hazardous constituents reported in Permit Condition III.I.3.a.
Screening levels shall be based on the most current version of KDHE’s *Risk-Based Standards for Kansas (RSK) Manual*, the latest EPA guidance, or as otherwise directed or approved by the Secretary.

**III.I.3.c.** The Secretary will review the RFI Report(s), including the screening levels described in Permit Condition III.I.3.b., and the Secretary shall notify the Permittee of the need for further investigation if the Secretary determines it is warranted, and inform the Permittee of the need for a CMS to meet the requirements of Permit Condition III.K. and 40 CFR § 264.101. The Secretary will notify the Permittee in the event that no further corrective action will be required, including any remedial action, monitoring and/or institutional controls. Any further investigation required by the Secretary shall be conducted in accordance with a schedule specified by the Secretary and as approved in accordance with Permit Condition III.U.

**III.I.3.d.** If the time required to conduct the RFI(s) is greater than one-hundred eighty (180) calendar days, the Permittee shall provide the Secretary with quarterly RFI Progress Reports at 90-day intervals, beginning ninety (90) calendar days from the start date specified by the Secretary in the RFI Work Plan approval letter. The Progress Reports shall contain the following information, at a minimum:

i. A description of the portion of the RFI completed;

ii. Summaries of findings;

iii. Summaries of any deviations from the approved RFI Work Plan during the reporting period;

iv. Summaries of any significant contacts with local community public interest groups or other state/local government entities;

v. Summaries of any problems or potential problems encountered during the reporting period;

vi. Actions taken to rectify problems;

vii. Changes in relevant personnel;

viii. Projected work for the next reporting period; and

ix. Copies of daily reports, inspection reports, data, and any other documentation required by the Secretary.

**III.I.4. Assessment of Risk**

**III.I.4.a.** If later required, at a minimum, consistent with Permit Condition III.I.3.b., the Permittee shall assess the potential excess human health risk posed by site-related COCs through direct comparison to the Tier 2 Levels as provided in the most current version of KDHE’s RSK Manual, or as otherwise directed or approved by the Secretary. In addition, the Permittee shall perform a rapid assessment of ecological
risk using the EPA Region 6 *Ecological Exclusion Criteria Worksheet* and *Ecological Assessment Checklist*, Attachment 9, Ecological Exclusion Screening Scope of Work.

### III.I.4.b
Alternatively, as directed or approved by the Secretary, the Permittee shall perform a site-specific quantitative baseline Human Health Risk Assessments (HHRA) and screening level ecological risk assessment/baseline ecological risk assessment (SLERA/BERA), to determine whether and the extent to which corrective action is required and to arrive at cleanup goals for a site. Any site-specific baseline risk assessment, such as HHRA and SLERA/BERA, must be performed consistent with available EPA risk assessment guidance titled *Risk Assessment Guidance for Superfund, Volume 1, Human Health Evaluation Manual, Parts A-F* (1989, 1991, 2001, 2004, & 2009), and any subsequent revisions or editions; and, *Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments – Interim Final* (1997), and any subsequent revisions or editions; or, as otherwise directed and approved by the Secretary.

### III.I.4.c
Prior to performing a Site-specific baseline risk assessment, the Permittee shall submit HHRA and SLERA/BERA Work Plans and, upon completion of site-specific risk assessment activities, the Permittee shall submit HHRA and SLERA/BERA reports, for the Secretary’s approval. All work plans and reports are subject to the provisions of Permit Condition III.U.

### III.J. INTERIM MEASURES (IM)

If the Secretary determines, during the course of any activity initiated in compliance with Permit Conditions of Section III of this Permit, that a Release or potential Release from a SWMU or AOC poses a threat to human health or the environment, the Secretary may require the Permittee to perform specific interim measures. Interim measures shall be used whenever necessary to achieve the goal of stabilization, which is to control or abate immediate threats to human health and the environment, and to prevent or minimize the spread of contamination while long-term corrective remedies are being evaluated. Alternatively, subject to the Secretary’s approval, the Permittee may propose interim measures implementation.

#### III.J.1. IM Work Plan/Design

#### III.J.1.a
Within thirty (30) calendar days of the Secretary’s written notification, the Permittee shall prepare and submit an IM Work Plan/Design for any SWMU or AOC, as determined necessary by the Secretary, or as proposed by the Permittee and approved by the
Secretary for implementation. The IM Work Plan/Design shall meet the requirements of Attachment 10, Interim Measures Scope of Work, unless otherwise directed or approved by the Secretary. Such interim measures may be conducted concurrently with investigations required under the terms of this Permit.

III.J.1.b. The IM Work Plan/Design shall ensure that the interim measures are designed to mitigate any current or potential threat(s) to human health or the environment and are consistent with and integrated into any long-term remedy at the Facility. The IM Work Plan/Design shall include: the interim measures objectives, procedures for implementing the IMs, including any designs, plans, or specifications, and schedules for implementation.

III.J.1.c. The IM Work Plan/Design shall be approved by the Secretary, in writing, prior to implementation. The Secretary shall specify the start date of the IM Work Plan/Design schedule in the letter approving the IM Work Plan/Design. The Secretary may approve, deny, or conditionally approve the IM Work Plan consistent with Permit Condition III.U.

III.J.1.d. The Permittee shall notify the Secretary within twenty-four (24) hours of becoming aware of the need for IM implementation to mitigate or stabilize any emergency that poses an immediate threat to public health or the environment. In the case of an emergency, the Permittee may initiate interim measures at a SWMU or AOC concurrent with submitting notification to the Secretary. The Secretary may require the Permittee to perform additional mitigative measures, request submission of an IM Work Plan/Design per Permit Condition III.J.1.a., and/or request submission of an IM Report per Permit Condition III.J.3. The Permittee shall comply with the Secretary’s additional requirements according to the timeline set by the Secretary.

III.J.2. IM Implementation

III.J.2.a. The Permittee shall implement the interim measures in accordance with the approved IM Work Plan/Design in Attachment 10.

III.J.2.b. The Permittee shall provide notification of all IM-related field activities in accordance with Permit Condition III.T.

III.J.2.c. Final approval of corrective action required under 40 CFR § 264.101 which is achieved through interim measure implementation shall be in accordance with 40 CFR § 270.41 and Permit Condition 1.B.1. as a permit modification.
III.J.3. IM Reporting

III.J.3.a. If the time required for completion of interim measure implementation is greater than one (1) year, the Permittee shall provide the Secretary with progress reports at intervals specified in the approved IM Work Plan or semi-annually for Permittee-initiated interim measures. The Progress Reports shall contain the following information at a minimum:

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

III.J.3.b. The Permittee shall prepare and submit to the Secretary, within ninety (90) calendar days of completion of interim measures conducted under Permit Condition III.J., an IM Report. The IM Report shall contain the following information at a minimum:

i. A description of interim measures implemented;
ii. Summaries of results;
iii. Summaries of all problems encountered;
iv. Summaries of accomplishments and/or effectiveness of IM; and
v. Copies of all relevant laboratory/monitoring data, or other documents required by the Secretary in accordance with Permit Condition I.E.11.

III.J.3.c. The Secretary may require the Permittee to perform additional interim measures and/or corrective action activities to ensure permit requirements are fully met and threats to public health and the environment are adequately addressed.

III.K. CORRECTIVE MEASURES STUDY (CMS)

A CMS dated February 2001 was approved by the EPA on March 1, 2004. The CMS identified air sparging and soil vapor extraction (AS/SVE) as the remedial technology to address soil and groundwater contamination at the facility. The Secretary is accepting the previous CMS as adequate and is not requiring additional CMS(s) for any of the SWMU(s) or AOC(s) identified with a status of No Further Action in Attachment 4.
Based on the results of an RFI, if required by the Secretary under Permit Condition III.1.3.c., the Permittee shall conduct a CMS to identify, screen, and develop the alternative(s) for removal, containment, treatment and/or other remediation of the contamination. The Permittee shall conduct the CMS in accordance with Attachment 11, CMS Scope of Work, and per current guidance documents from EPA (RCRA Corrective Action Plan – Final, May 1994, EPA/520-R-94-004), or equivalent as approved by the Secretary. The Secretary may require the Permittee to evaluate as part of the CMS one or more additional potential corrective measures. These corrective measures may include a specific technology or combination of technologies that, in the Secretary’s judgment, achieves protection of human health and the environment.

The Permittee may seek approval from the Secretary for concurrent RFI/CMS. The CMS may be performed concurrently with the RFI process only if the Secretary determines that sufficient investigative details are available to allow concurrent action.

III.K.1. CMS Work Plan

III.K.1.a. The Permittee shall prepare and submit a CMS Work Plan within ninety (90) calendar days of written notification by the Secretary that a CMS Work Plan is required. The CMS Work Plan shall meet the requirements of Attachment 11, CMS Scope of Work, unless otherwise directed or approved by the Secretary.

III.K.1.b. The CMS Work Plan must be approved by the Secretary, in writing, prior to implementation. The Secretary shall specify the start date of the CMS Work Plan schedule in the letter approving the CMS Work Plan. The Secretary may approve, deny, or conditionally approve the CMS Work Plan consistent with Permit Condition III.U.

III.K.1.c. If the Secretary requires a CMS Work Plan, the Permittee must provide sufficient justification and/or documentation for any SWMUs or AOCs deleted from the CMS Work Plan. Such deletion of a SWMUs or AOC is subject to the approval of the Secretary.

III.K.2. CMS Implementation

III.K.2.a. The Permittee shall implement the CMS in accordance with the approved CMS Work Plan, if required, and Attachment 11, CMS Scope of Work.

III.K.2.b. The Permittee shall provide notification of all CMS-related field activities in accordance with Permit Condition III.T.

III.K.2.c. If the Secretary does not require a CMS Work Plan, the Permittee must provide sufficient justification and/or documentation for any SWMUs
III.K.3. CMS Reporting

III.K.3.a. The Permittee shall prepare and submit a CMS Report to the Secretary for those SWMUs and AOCs where hazardous constituents are located at concentrations exceeding those appropriate for the protection of human health and the environment. The CMS Report shall present all information gathered under the approved CMS Work Plan, if required, and shall be consistent with the most recent version of the EPA guidance document entitled, *RCRA Corrective Action Plan – Final, May 1994*, EPA/520-R-94-004, and the requirements in Attachment 11, CMS Scope of Work. The CMS Report must contain adequate information for the Secretary to select the corrective measure(s) necessary to protect human health and the environment from Releases at or from the Facility.

III.K.3.b. The Permittee shall submit the CMS Report according to the schedule specified in the approved CMS Work Plan, if required, or as specified in the Facility Submission Summary in Section III.V.

III.K.3.c. Where interim measures have been implemented and are anticipated to constitute the final remedy, and subject to the Secretary’s approval, the Permittee may prepare a Focused CMS Report following the general CMS outline in Permit Conditions III.K. Within the Focused CMS, the Permittee shall propose the final corrective remedy for the Facility, a justification of why the proposed corrective measures are protective of human health and the environment, and the proposed criteria adequate for the Secretary to determine when the proposed corrective actions shall be considered complete.

III.K.3.d. The Secretary may approve, deny, or conditionally approve the CMS Report or the Focused CMS Report consistent with Permit Condition III.U.

III.K.4. Presumptive Remedy Design Concept

III.K.4.a. The Permittee may develop a Presumptive Remedy Design Concept, without the comparative alternatives analysis element typical of a CMS, with detailed justification for an alternate approach and subject to the Secretary’s approval. All other CMS-related requirements contained in Section III.K. apply to design concept development and implementation.
III.K.4.b. The Secretary may approve, deny, or conditionally approve the Presumptive Remedy Design Concept consistent with Permit Condition III.U.

III.L. CORRECTIVE MEASURES SELECTION AND PERMIT MODIFICATION

Corrective Measures were selected by EPA on March 1, 2004 with the approval of the CMS dated February 2001, which identified air sparging and soil vapor extraction (AS/SVE) as the remedial technology to address soil and groundwater contamination at the facility. On November 21, 2006, a Class 3 permit modification requesting a corrective action complete determination was submitted to EPA and following an additional two years of groundwater monitoring EPA prepared a public notice for the proposed permit modification with a 60-day public comment period from September 15th, 2008, through November 15, 2008.

On January 6, 2009 EPA issued a Final Decision and Response to Comments that modified the facility’s permit to indicate corrective action at the facility was complete without controls and required the facility to submit a certification of corrective action complete. On November 10, 2009, EPA approved the “Certification of Corrective Action Complete” report.

The Secretary is accepting EPAs final corrective action decision and is incorporating the January 6, 2009 final decision into Attachment 4 as equivalent to the Secretary’s Corrective Measures Decision required by Permit Condition III.L.1.

The Secretary will select corrective measure(s) that the Secretary determines will: (1) protect human health and the environment; (2) attain media cleanup standards set by the Secretary; (3) control the source(s) of Releases so as to reduce or eliminate, to the maximum extent practicable, further Releases that may pose a threat to human health and the environment; and, (4) meet all appropriate state and federal requirements. Before selecting corrective measures, the Secretary will prepare a Fact Sheet that identifies the preferred corrective measure(s) and provides the reasons for the selection. The Secretary will make a Corrective Measures Decision after public notice and public review of the Fact Sheet and supporting documents and review of public comments. If necessary, the Secretary will initiate a permit modification pursuant to 40 CFR § 270.41 to require implementation of the preferred corrective measure or measures. Alternatively, this Permit may be modified by the Permittee pursuant to 40 CFR § 270.42(c) for the implementation of the KDHE-selected corrective measure(s).

III.L.1. A corrective measures decision shall be selected from the remedial alternatives evaluated in the CMS. It will be based, at a minimum, on protection of human health and the environment, based on specific Site conditions and existing regulations. The selected corrective measure(s) may include any interim measures implemented to date.
III.L.2. The public will be provided an opportunity to review and comment on the Fact Sheet and supporting documents.

III.L.3. Following the public comment period, the Secretary may approve the CMS Report and select a final corrective measure(s) or require the Permittee to revise the CMS Report and/or perform additional CMS activities.

III.L.4. The Secretary will notify the Permittee of the final corrective measure selected by the Secretary in the Corrective Measures Decision and Response to Comments. The notification will include the Secretary’s reasons for corrective measure(s) selection.

III.L.5. Pursuant to 40 CFR § 270.41, a permit modification may be initiated by the Secretary, after recommendation of corrective measures(s), under Permit Condition I.B.1. This modification will serve to incorporate corrective measure(s) and implementation schedules into this Permit. The permit modification shall include a schedule and date for corrective measure(s) implementation. Upon the effective date of the permit modification approving the selected corrective measure(s), the Permittee shall implement the approved remedy per the Corrective Measures Implementation schedule. The Permittee shall submit the corrective measures implementation and/or final remedy effectiveness reports annually to the Secretary in accordance with Permit Condition III.M.3.c.

III.L.6. The Permittee shall provide cost estimates and demonstrate financial assurance for completing the Interim Measures approved in accordance with Permit Condition III.J. or the remedy approved in accordance with Permit Condition III.M. and shall meet the timelines for these requirements set out in the compliance schedule(s) in the Facility Submission Summary in Section III.V. Thereafter, the Permittee shall review the remedy cost estimates, adjust the financial assurance instrument, and submit to the Secretary any necessary changes in the cost estimates and adjustments to the financial assurance instrument annually. The mechanism for financial assurance may be one that is described and allowable under 40 CFR §§ 264.140 through 264.151, Subpart H, subject to the Secretary’s discretion. Permittee shall submit the financial assurance in the form approved by the Secretary in the amount of the approved cost estimate.

III.M. CORRECTIVE MEASURES IMPLEMENTATION

A CMI Work Plan was submitted in February 2001 and approved by EPA in March 2004. The Facility implemented the CMI Work Plan and on November 21, 2006 submitted a Class 3 Permit Modification to EPA requesting a corrective action complete designation. On January 6, 2009 EPA issued a Final Decision and Response to Comments that modified the Facility’s permit to indicate corrective action at the Facility was complete without controls and required the Facility to submit a certification of corrective action complete to
demonstrate the AS/SVE system and associated wells were properly decommissioned and closed. On November 10, 2009, EPA approved the Certification of Correction Action Complete report.

The Secretary is accepting the November 10, 2009 EPA approval of the Certification of Correction Action Complete report as equivalent to a Secretary approved Corrective Measures Completion Report required by Permit Condition III.M.3.e and is incorporating it into Attachment 4. The Secretary has determined that corrective actions are complete for each of the SWMU(s) or AOC(s) identified with a status of No Further Action in Attachment 4.

If, subsequent to this Permits effective date, the Secretary selects a new or additional final remedy/corrective measure in accordance with the provisions of this Permit, the Permittee shall within sixty (60) calendar days of that selection submit a Corrective Measures Implementation (CMI) Work Plan to implement the selected corrective measure(s). The CMI Work Plan shall meet the requirements of Attachment 12, Corrective Measures Implementation Scope of Work, unless otherwise directed or approved by the Secretary. All CMI-related activities shall be conducted in a manner consistent with available EPA guidance “RCRA Corrective Action Plan”, EPA 520-R-94-004 – Final, May 1994.

III.M.1. CMI Work Plan

The CMI Work Plan shall be approved by the Secretary, in writing, prior to implementation. The Secretary shall specify the start date of the CMI Work Plan schedule in the letter approving the CMI Work Plan. The Secretary may approve, deny, or conditionally approve the CMI Work Plan consistent with Permit Condition III.U.

III.M.2. The Permittee shall implement the corrective measures in accordance with the approved CMI Work Plan in Attachment 15. The Permittee shall provide notification of all CMI-related field activities in accordance with Permit Condition III.T. If the Secretary deems it warranted, the Secretary may require the Permittee perform additional corrective action measures to ensure permit requirements are fully met.

III.M.3. CMI Reporting

III.M.3.a. If the time required for completion of corrective measure implementation is greater than one (1) year, the Permittee shall provide the Secretary with progress reports at intervals specified in the approved CMI Work Plan. The Progress Reports shall contain the following information at a minimum:

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

III.M.3.b. The Permittee shall prepare and submit to the Secretary, in accordance with the approved CMI Work Plan schedule, a Corrective Measures Construction Completion (CMCC) Report. The CMCC Report shall contain the following information at a minimum:

i. Description of purpose of the CMCC Report;
ii. Synopsis of the corrective measure(s), design criteria, and certification that the corrective measure(s) was constructed in accordance with the final plans and specifications as contained in the CMI Work Plan;
iii. Explanation and description of any modifications to the Secretary-approved CMI Work Plan and why these were necessary for the project;
iv. Results of any operational testing and/or monitoring, indicating how initial operation of the corrective measure(s) compares to the design criteria;
v. Summary of significant activities that occurred during construction, including a discussion of problems encountered and how they were addressed;
vi. Summary of inspection findings, including copies of key inspection documents in appendices; and,
vii. As-built drawings, process flow diagrams, and photographs depicting the constructed corrective measure(s).

III.M.3.c. The Permittee shall submit a CMI Annual Report to the Secretary, no later than March 1 of each year, of the prior year’s performance of the corrective measures, above, including Institutional Controls (ICs). The CMI Annual Report shall include documentation of all samples and data collected and their analysis, and an evaluation of both the short-term and long-term effectiveness of the corrective measures. The CMI Annual Report shall include any deficiencies or violations of engineering controls (ECs) or ICs determined from the inspection, maintenance, and monitoring required in the Corrective Measures Implementation Work Plan. Based upon the Secretary’s review of the report, the Secretary may require the Permittee to conduct additional investigation, study, and/or work in order to modify an existing corrective measure or to select a new corrective measure or measures. If action is needed to protect human health or the environment from
Releases or to prevent or minimize the further spread of contamination while long-term remedies are pursued, the Secretary may require the Permittee to implement Interim Measures pursuant to Permit Condition III.J.

III.M.3.d. Every five (5) years, the Permittee shall submit a report to the Secretary that evaluates the effectiveness and performance of CMI. The Permittee shall submit to the Secretary for review and approval a Five-Year Corrective Measures Performance Evaluation Report. The evaluation shall be consistent with the CERCLA Comprehensive Five-Year Review Guidance, OSWER Directive 9355.7-03B-P, June 2001, and any subsequent revisions or additions, or as otherwise directed by the Secretary, and include the following:

i. Annual reports required in the CMI Work Plan;
ii. Effectiveness of corrective measures in protecting human health and the environment as described in the final Corrective Measures Decision (CMD);
iii. Effectiveness of ECs and ICs in protecting human health and the environment as described in the CMD;
iv. Results of sampling and analysis to determine the effectiveness and performance of the corrective measures;
v. Any changed circumstances that render the corrective measures, including ECs and ICs, ineffective;
vi. Possible modifications to the corrective measures to provide necessary protection; and
vii. Any other reporting requirements included in the Secretary-approved CMI Work Plan.

Based upon the Secretary’s review of the report, the Secretary may require the Permittee to conduct additional investigation, study, and/or work in order to modify an existing corrective measure or to select a new corrective measure(s). If action is needed to protect human health or the environment from Releases or to prevent or minimize the further spread of contamination while long-term remedies are implemented, the Secretary may require the Permittee to implement Interim Measures pursuant to Permit Condition III.J.

III.M.3.e. The Permittee shall submit a Corrective Measures Completion (CMC) Report to the Secretary within ninety (90) calendar days of the completion of all corrective measure activities required by Permit Condition III.M. for the Facility or for individual SWMUs. The purpose of the CMC Report is to fully document how the corrective measure(s) completion criteria have been satisfied and to justify why
the corrective measure(s) and/or monitoring may cease. The CMC Report shall, at a minimum, include the following elements:

i. Purpose;
ii. Synopsis of the corrective measure(s);
iii. CMC Criteria: Describe the process and criteria for determining when corrective measure(s), maintenance and monitoring may cease;
iv. Demonstration that the completion criteria have been met. Include results of testing and/or monitoring, indicating how operation of the corrective measure compare(s) to the completion criteria;
v. Summary of work accomplishments, including performance levels achieved, total treated and/or excavated volumes, nature and volume of wastes generated, and other items required by the Secretary;
vi. Summary of significant activities that occurred during operations. Include a discussion of problems encountered and how they were addressed;
vii. Summary of inspection findings, including copies of key inspection documents in appendices;
viii. Summary of total operation and maintenance costs; and
ix. Determination of whether ECs and/or ICs are required to be maintained.

The Secretary may approve, deny or conditionally approve the CMC Report consistent with Permit Condition III.U.

III.N. CHANGE IN PROPERTY USE

If property use restrictions are included as a part of the Secretary-selected corrective measures, before the property use can be changed, the Permittee shall submit a request for a permit modification, in addition to any necessary revisions or amendments to the restrictive covenant, to include a new risk assessment, as determined necessary by the Secretary, and a CMS, or equivalent, that addresses potential exposures associated with the proposed property use. The Secretary may approve, deny, or conditionally approve the permit modification supporting documentation consistent with Permit Condition III.U. Changes in corrective measures shall be selected in accordance with procedures in Permit Condition III.L. Upon final selection and modification into the Permit, the Permittee shall implement any new corrective measures.

III.O. ADDITIONAL TASKS

If at any time during implementation of corrective action under this Permit the Secretary determines that additional tasks are necessary to accomplish the corrective action required
by this Permit or by applicable laws, the Secretary will provide written notification to the Permittee of the requirement for additional tasks to be performed by the Permittee. The Secretary may determine that certain tasks, including, but not limited to, investigatory work or engineering evaluation are necessary in addition to the tasks and deliverables already required under this Permit. The Secretary will specify the basis and reasons for its determination that the additional tasks are necessary and will request submittal of a draft work plan to perform the additional tasks. Within sixty (60) days of the Secretary’s written request, the Permittee shall submit a draft work plan. The Secretary may approve, deny, or conditionally approve the draft work plan consistent with Permit Condition III.U. Upon the Secretary’s approval, the Permittee shall perform the additional work according to the Secretary-approved work plan. The completion of the additional work, as specified in this Permit Condition, shall be documented by the Permittee in accordance with the approved schedule for the additional work.

III.P. INSTITUTIONAL CONTROL (IC) REQUIREMENTS

There is currently no corrective action required IC(s) at the Facility. The Facility received a correction action complete without controls designation from EPA January 6, 2009, and the Secretary has accepted this determination.

III.P.1. IC Requirement

If contamination will remain at the Facility at levels that do not allow for unrestricted use and unlimited exposure, the Permittee and any subsequent owners or operators shall implement ICs to ensure protection of human health and the environment by minimizing the potential for exposure to contamination that remains on the Facility property. At a minimum, ICs shall ensure the Facility property is not developed, used, or operated in a manner incompatible with the Secretary-approved corrective measures. Required ICs shall be maintained for the duration of this Permit and any subsequent modifications or renewals, or as otherwise directed by the Secretary or as recorded with the property deed. ICs shall also include Restrictive Covenants and/or Easements required by Permit Condition II.B.2.

III.P.2. IC Guidance

The ICs shall be consistent with available EPA guidance as approved by the Secretary, including but not limited to, Institutional Controls: A Guide to Planning, Implementing, Maintaining, and Enforcing Institutional Controls at Contaminated Sites, EPA-540-R-09-001, OSWER 9355.0-89, December 2012; Institutional Controls: A Guide to Preparing Institutional Control Implementation and Assurance Plans at Contaminated Sites, EPA-540-R-09-002, OSWER 9200.0-77, December 2012; and, Institutional Controls: A Site Manager's Guide to Identifying, Evaluating and Selecting Institutional Controls
at Superfund and RCRA Corrective Action Cleanups, EPA 540-F-00-005, OSWER 9355.0-74FS-P, September 2000.

III.P.3. IC Plan

The Permittee shall propose to the Secretary in a detailed IC Plan, the ICs to be implemented if cleanup standards allowing for unrestricted use at the Facility are not attainable. The IC Plan must be submitted within thirty (30) calendar days following the determination that unrestricted use cleanup standards have not been attained, or as otherwise directed by the Secretary.

The IC Plan shall include:

a. Drafts of all proposed IC documents and/or instruments;

b. Specifications and schedule for monitoring, review and reporting on the effectiveness of the IC(s); and

c. A schedule for the implementation of the IC Plan, and a title search report for the Facility.

The Secretary will review the IC Plan for approval in accordance with the procedures in Permit Condition III.U. Upon approval of the IC Plan by the Secretary, the Permittee shall implement the IC Plan in conformance with the schedule contained therein.

In accordance with Permit Condition II.B.2. and III.V., the Permittee shall record all instruments approved by the Secretary with the register of deeds in the county where the property is located, and shall timely submit to the Secretary a copy of the recorded instrument with the notarized signature of the applicant and the seal of the register of deeds indicating the agreement has been recorded.

The requirements for ICs shall be maintained as specified in this Permit and shall not be terminated until the Secretary has determined that the concentration of hazardous constituents in the soil and groundwater are at such levels to allow for unrestricted use. Before ICs are terminated or modified, the Secretary must agree in writing to any modification or termination of ICs.

III.P.5. IC Implementation

The Permittee, and any subsequent owner or operator, shall implement all ICs pursuant to Kansas statutes and regulations to prevent unacceptable exposures to human health and the environment.
III.Q. CORRECTIVE ACTION SCHEDULE OF COMPLIANCE MODIFICATION

III.Q.1. If at any time the Secretary determines that modification of the corrective action schedule of compliance is necessary, the Secretary may initiate a modification to the corrective action schedule of compliance. Modifications that are initiated and finalized by the Secretary will be in accordance with the applicable provisions of 40 CFR § 270.41.

III.Q.2. The Permittee may also request a permit modification in accordance with 40 CFR § 270.42 to change the corrective action schedule of compliance.

III.R. WORK PLAN AND REPORT REQUIREMENTS

III.R.1. All work plans and schedules shall be subject to approval by the Secretary prior to implementation to assure that such work plans and schedules are consistent with the requirements of this Permit and with applicable regulations. Any approved schedule of implementation contained in any work plan, addendum, or additional phases becomes part of the Permit. The Permittee shall revise all submissions and schedules as specified by the Secretary. Upon approval, the Permittee shall implement all work plans and schedules as written and approved.

III.R.2. All work plans and reports shall be submitted in accordance with the approved schedule. Extensions of the due date for submissions may be granted by the Secretary based on the Permittee’s demonstration that sufficient justification for the extension exists.

III.R.3. If the Permittee at any time determines that the corrective action work having been or being performed no longer satisfies the requirements of 40 CFR § 264.101 or this Permit for prior or continuing Releases from SWMUs or AOCs, the Permittee shall submit an amended work plan(s) to the Secretary within ninety (90) calendar days of such determination.

III.R.4. One (1) hard copy of all reports and work plans and a searchable electronic version of the same reports/work plans shall be provided by the Permittee to the Secretary as described in Condition I.H.

III.S. REIMBURSEMENT OF KDHE CORRECTIVE ACTION COSTS

The Permittee shall reimburse KDHE costs as defined herein, pursuant to K.S.A. 65-3453(a)(4), K.S.A. 65-3453(a)(6), K.S.A. 65-3455, and 65-34,175, for all corrective action activities performed under this Permit:

III.S.1. “KDHE costs” shall mean all direct and administrative costs and expenditures incurred by or on behalf of KDHE to conduct or support corrective action activities at the Site including all costs associated with actions necessary to
respond to an environmental threat. The term “direct costs” shall include, but is not limited to, employee or contractor time related to oversight, sampling, investigation work, corrective action work, document review and preparation, negotiation and preparation of enforcement documents and actions, internal and external discussions, travel expenses, and public involvement activities; equipment used; and other costs directly associated with, or incurred at or in relation to, the Facility. The term “administrative costs” shall include, but is not limited to, overhead and general administrative expenses.

KDHE costs incurred from the effective date of the Permit until the end of the next calendar quarter shall be billed forty-five (45) days following the end of the calendar quarter. Thereafter, KDHE shall bill the Permittee for all KDHE costs incurred during each calendar quarter forty-five (45) days following the end of the calendar quarter. Unless the Permittee disagrees with the KDHE costs pursuant to III.S.5., payment of the invoice is due upon receipt for which the Permittee shall remit a check for the full amount of those KDHE costs made payable to the Kansas Department of Health and Environment. Failure to pay the total invoice due within thirty (30) days of issuance of the invoice shall be considered a violation of the Permit. An exemplar of the invoice to be used is Attachment 13.

III.S.2. Payment for all KDHE costs assessed to the Permittee shall be made to the attention of the program contact and address noted on the invoice:

Kansas Department of Health and Environment
Bureau of Waste Management
1000 SW Jackson Street, Suite 320
Topeka, KS 66612-1366

A copy of the check and transmittal letter shall be sent to the Secretary as outlined in Permit Condition I.H.

III.S.4. KDHE costs that have been invoiced to the Permittee and that are past due and owing shall be subject to interest if the Secretary initiates a civil action to enforce the cost reimbursement requirements in this Permit. The Secretary shall notify the Permittee in writing of its requirements to pay KDHE’s past-due costs before filing a civil action to enforce any cost reimbursement requirements. Interest shall be calculated pursuant to K.S.A. 16-201 and K.S.A. 16-204, as applicable.

III.S.5. In the event the Permittee disagrees with any cost invoiced under this Permit, the Permittee shall, within fifteen (15) days of receipt of the applicable invoice, send written notice of cost disagreement to the Secretary, in the manner described in Permit Condition I.H., stating the specific terms of the disagreement, and providing copies of relevant information.
III.S.5.a. Within thirty (30) days of receipt of any such notice of cost disagreement from the Permittee, the Secretary and the Permittee shall meet by telephone or in person to attempt to reach agreement on the matter. If the parties cannot reach agreement by consent during this period, the Secretary shall issue a final written decision on the cost disagreement.

III.S.5.b. In the event that the Permittee seeks resolution of cost disagreement concerning an invoice, the date for payment of the invoice shall be extended for a period equal to and running concurrent with the delay resulting from the invocation of the cost disagreement resolution provision. However, such extension does not alter the schedule for performance or completion of any other tasks required by this Permit, including but not limited to timely payment of preceding and subsequent invoices.

III.S.5.c. In the event that the Secretary determines that resolution of cost disagreement was not sought in good faith, the Permittee shall be responsible for all additional KDHE costs incurred as a result of the Permittee invoking resolution of cost disagreement.

III.T. CORRECTIVE ACTION FIELD ACTIVITIES NOTIFICATION

The Permittee shall provide the Secretary at least fourteen (14) calendar days advance written notification before conducting any investigation and/or corrective action, or other ancillary activities related to such measures, whether conducted pursuant to this Permit or to a request, requirement, or order from any other federal, state, or local regulatory authority where the resultant data or information would be used in part or in full to satisfy requirements of this Permit. Failure to provide advance written notification may result in the Secretary rejecting the data obtained or work performed by the Permittee. Once the Permittee is formally notified of web-based form availability, advance written notification shall be provided by the Permittee by completing the KDHE-BWM Hazardous Waste Permitting Section Field Activities Notification Form on the KDHE website for each activity as distinguished by separate field mobilizations. Until the point of such formal notification, or if internet or website access is not available, the Permittee shall submit the KDHE-BWM Hazardous Waste Permitting Section Field Activities Notification Form, Attachment 14, to the Secretary, in the manner described in Permit Condition I.H.

III.U. CORRECTIVE ACTION DOCUMENT SUBMITTAL AND WORK PERFORMANCE REQUIREMENTS

III.U.1. Document Submission and Approval Process

In accordance with Permit Conditions I.H. and as outlined in Permit Condition III.V., the Permittee shall submit identified, required, or requested documents to
the Secretary within the timeframes established in this Permit, or as otherwise approved, required, or specified directed by the Secretary. The Secretary shall review the document and send a written letter to the Permittee indicating approval, approval with comment, approval with conditions, denial, or such other designation as the Secretary determines appropriate. If the Secretary requires a written response and/or document revision, the Permittee shall provide such in the form and by the due date specified in the Secretary’s letter.

If the Secretary conditionally approves the document, Permittee will be notified of the conditions. The conditionally approved, modified document shall be the approved document.

If the Secretary denies approval of the document, the Secretary may either: (1) notify the Permittee in writing of the document’s deficiencies and specify a due date for submission of a revised document; or (2) revise the document and notify the Permittee of the revisions, and the revised document shall be the approved document.

### III.U.2. Inadequate Document Modification - Notice

In the event that the Permittee does not respond to the Secretary’s written request or requirement as described in Section III.U.1., or if the Secretary finds that a document submitted pursuant to this Permit is deficient, the Secretary may issue a letter to the Permittee requesting that the Permittee make specific modifications to any document required by this Permit. The notice will set out the deficiencies in the document or work, describe the necessary modifications to address the deficiencies, and provide a timeframe to correct the deficiencies. Failure to timely revise, correct, or otherwise adequately respond to the Secretary’s notice shall be a violation of this Permit and may subject the Permittee to additional tasks, actions, or penalties.

### III.U.3. Work Takeover – Notice

If the Permittee fails to timely revise, correct, or otherwise respond to the Secretary’s written requirement for document modification or work performance, or if the Secretary determines the Permittee either: 1) has ceased implementation of any of the work; 2) is seriously or repeatedly deficient or late in its performance of the work; or 3) is implementing the work in a manner which may cause an endangerment to human health or the environment, the Secretary at its discretion, may assume or arrange for a contractor or contractors to assume the performance of all or any portions of the work, as the Secretary determines necessary. If the Secretary determines that such a work takeover is necessary, the Secretary will send the Permittee a Notice of Work Takeover specifying a date upon which the Secretary may assume or arrange for a contractor or contractors to assume the performance of all or any portions of the work. In the event of work takeover,
pursuant to K.S.A. 65-3453(a)(4), K.S.A. 65-3453(a)(6), K.S.A. 65-3455, and 65-34,175, the Permittee shall pay for all costs incurred by the Secretary and by any contractor who performs work pursuant to this paragraph. For purposes of this paragraph, “work” shall mean any condition, task, or schedule required by this Permit.

III.U.4. Additional Tasks May Be Required

The Secretary may determine that tasks or conditions may be required in addition to those specified in the approved work plans or associated documents/reports, as identified in Permit Condition III.V. In the event the Secretary makes such a determination, the Secretary will notify the Permittee in writing that additional tasks or conditions are necessary in order to meet the goals and objectives of this Permit, to assess risk in accordance with Permit Condition III.I.4. for any additional contaminant(s) detected, to conform to applicable laws, and/or to protect public health or safety or the environment. If such tasks or conditions are required, they shall be completed as specified by the Secretary and within the timeframes established by the Secretary.

III.U.5. Failure to Comply

Failure to comply with any of the terms and conditions of this Permit shall be considered a violation of this Permit and may subject the Permittee to such administrative actions and penalty provisions as set forth in this Permit or as otherwise authorized by law.

III.V. FACILITY SUBMISSION SUMMARY

The following is a summary of the required Facility submissions/reporting pursuant to Section III of this Permit.

<table>
<thead>
<tr>
<th>SUBMISSION REQUIREMENTS</th>
<th>DUE DATE</th>
<th>PERMIT CONDITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notification of Newly-Identified or Suspected New SWMUs/AOCs</td>
<td>No later than fifteen (15) calendar days from discovery</td>
<td>III.E.1.</td>
</tr>
<tr>
<td>SWMU/AOC Preliminary Assessment Report</td>
<td>Within thirty (30) calendar days of notification per Permit Condition III.E.1.</td>
<td>III.E.2.</td>
</tr>
<tr>
<td>Notification of Newly-Discovered Releases from Previously Identified SWMUs/AOCs</td>
<td>No later than fifteen (15) days from discovery</td>
<td>III.F.1.</td>
</tr>
<tr>
<td>DCC Report</td>
<td>Within ninety (90) calendar days from date of the Secretary’s written request</td>
<td>III.G.1.</td>
</tr>
<tr>
<td>SUBMISSION REQUIREMENTS</td>
<td>DUE DATE</td>
<td>PERMIT CONDITION</td>
</tr>
<tr>
<td>-------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>CS Work Plan</td>
<td>Within forty-five (45) calendar days from date of the Secretary’s written request</td>
<td>III.H.1.</td>
</tr>
<tr>
<td>CS Report</td>
<td>According to the schedule contained in approved CS Work Plan</td>
<td>III.H.5.</td>
</tr>
<tr>
<td>RFI Work Plan</td>
<td>Within sixty (60) calendar days from date of the Secretary’s written request</td>
<td>III.I.1.a.</td>
</tr>
<tr>
<td>RFI Report</td>
<td>According to schedule contained in approved RFI Work Plan and/or any RFI Work Plan addenda</td>
<td>III.I.3.a.</td>
</tr>
<tr>
<td>Quantitative Baseline HHRA and SLERA/BERA Work Plan(s)</td>
<td>As directed or approved by the Secretary</td>
<td>III.I.4.c.</td>
</tr>
<tr>
<td>Quantitative Baseline HHRA and SLERA/BERA Reports</td>
<td>As directed or approved by the Secretary</td>
<td>III.I.4.c.</td>
</tr>
<tr>
<td>IM Work Plan/Design</td>
<td>Within thirty (30) calendar days from date of the Secretary’s written request</td>
<td>III.J.1.a.</td>
</tr>
<tr>
<td>IM Report</td>
<td>Within ninety (90) calendar days of IM completion</td>
<td>III.J.3.b.</td>
</tr>
<tr>
<td>CMS Scope of Work</td>
<td>Within ninety (90) calendar days from date of the Secretary’s written request</td>
<td>III.K.</td>
</tr>
<tr>
<td>CMS Report</td>
<td>Within ninety (90) calendar days from date of the Secretary’s written request</td>
<td>III.K.5.</td>
</tr>
<tr>
<td>CMI Work Plan</td>
<td>Within sixty (60) calendar days of the Secretary’s selection of final remedy/corrective measure</td>
<td>III.M.</td>
</tr>
<tr>
<td>CMCC Report</td>
<td>According to schedule contained in approved CMI Work Plan</td>
<td>III.M.3.b.</td>
</tr>
<tr>
<td>CMI Annual Report</td>
<td>No later than March 1 of each year reporting on prior year’s effectiveness and performance of corrective measures</td>
<td>III.M.3.c.</td>
</tr>
<tr>
<td>CMC Report</td>
<td>Within ninety (90) calendar days of the completion of all remedial activities</td>
<td>III.M.3.e.</td>
</tr>
<tr>
<td>IC Plan</td>
<td>Within thirty (30) calendar days from date of the Secretary’s written request</td>
<td>III.P.3</td>
</tr>
<tr>
<td>Cost Estimate for Corrective Action Work</td>
<td>Within thirty (30) calendar days after the Permit effectiveness date. For Additional Work, within thirty (30) calendar days after the Secretary has approved a new work plan</td>
<td>II.M.2.a. III.L.6</td>
</tr>
<tr>
<td>Adjustment of the estimated cost of the work for inflation</td>
<td>Annually within sixty (60) days prior to the anniversary date of the Secretary’s initial approval of such estimated cost of the work,</td>
<td>II.M.2.b. III.L.6</td>
</tr>
<tr>
<td>SUBMISSION REQUIREMENTS</td>
<td>DUE DATE</td>
<td>PERMIT CONDITION</td>
</tr>
<tr>
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<tr>
<td>or within thirty (30) days after fiscal year close if financial test and corporate guarantee demonstration used.</td>
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</tr>
<tr>
<td>Financial Assurance for Completing the Work</td>
<td>Within thirty (30) days after the Secretary has approved the initial and any subsequent Estimated Cost of Work</td>
<td>II.L.3.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>III.L.6</td>
</tr>
<tr>
<td>Quarterly Progress Reports</td>
<td>As approved or as otherwise directed by the Secretary</td>
<td>III.I.3.d.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>III.J.3.a.</td>
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<td></td>
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<td>III.M.3.a.</td>
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</tbody>
</table>
SECTION IV - STORAGE IN CONTAINERS

IV.A. DESCRIPTION OF STORAGE FACILITIES

The Permittee is authorized to operate one (1) hazardous waste container storage area of approximately 1500 square feet located adjacent to and north of the facility’s warehouse. The area is located outdoors on an elevated concrete structure with a concrete containment curbing surrounding the entire storage surface and covered with a roof/canopy. Concrete curbing three inches high and six inches wide surrounds the perimeter of the storage area on three sides and also divides the storage pad into three segregated containment areas.

The storage area is designed to store containerized liquids and solids with a concrete secondary containment system that can contain 10% of the area's total permitted storage capacity listed in Permit Condition IV.D. The volume of the largest container stored in the container storage area shall not exceed the net secondary containment volume calculated in the Part B Application for each segregated containment area. Subject to the requirements of Permit Condition IV.B, the Permittee may store hazardous waste generated on-site at the Facility and off-site by other generators in the storage area covered by this Permit.

The Permittee is authorized for storage of hazardous waste in containers, as defined in Section D of the approved Permit Application and Section IV.C of this Permit. Approved hazardous waste storage containers will be maintained in the hazardous waste storage area described in Section D of the approved Permit Application. The Permittee is prohibited from storing hazardous waste in containers for more than ninety (90) days at any area other than the one (1) storage area described here and in the approved Permit Application.

The Permittee also operates as a 10-day transfer facility and hazardous waste transporter in accordance with 40 CFR § 260.10, 40 CFR § 262.30, 40 CFR § 263.12 and the Waste Characteristics and Waste Analysis Plan (WAP) of the Part B Permit Application.
IV.B. PERMITTED AND PROHIBITED WASTE

The Permittee is allowed to store the hazardous wastes identified in Attachment 2 of this Permit in the container storage area described in Section IV.A of the Permit and Section D of the approved Permit Application, subject to the terms of this Permit. The Permittee is prohibited from the storage of hazardous wastes that are not identified in Attachment 2.

IV.C. OPERATION AND MAINTENANCE

The Permittee shall operate and maintain the container storage area in accordance with 40 CFR 264, Subpart I and the specifications and design criteria contained in the approved Permit Application.

IV.D. CONTAINER STORAGE FACILITY CAPACITIES

The Permittee is allowed to store a maximum volume of 9,240 gallons of hazardous waste in the storage area described in Permit Condition IV.A., subject to the terms of this Permit. The Permittee shall limit the storage capacity for each the storage area in accordance with the following table:

<table>
<thead>
<tr>
<th>Storage Area</th>
<th>Storage Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Container Storage Pad</td>
<td>Maximum of 9,240 total gallons (168, 55-gallon containers)</td>
</tr>
</tbody>
</table>

TOTAL CONTAINER STORAGE CAPACITY 9,240 U.S. Gallons

No palletized container unit stored in the above storage area may be stacked in greater than two (2) tiers. Various sized containers, as described in Table D-1 of the approved Permit Application, may be used provided the conditions of 40 CFR § 264, Subpart I and all other provisions of this Permit are met. The volume of the largest container stored in the container storage area shall not exceed the net secondary containment volume calculated in the approved Permit Application.

IV.E. CONDITION OF CONTAINERS

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 such container to a container that is in good condition or otherwise manage the waste in compliance with the conditions of this Permit. [40 CFR § 264.171]
IV.F. COMPATIBILITY OF WASTE WITH CONTAINERS

The Permittee shall use a container 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. [40 CFR § 264.172]

IV.G. MANAGEMENT OF CONTAINERS

IV.G.1. The Permittee shall keep all containers closed during storage, except when it is necessary to add or remove waste, and shall not open, handle, or store containers in a manner which may rupture the container or cause it to leak. [40 CFR § 264.173]

IV.G.2. The Permittee shall mark all containers of hazardous waste with the accumulation start date and the words “HAZARDOUS WASTE”, so that the accumulation start date and “HAZARDOUS WASTE” markings are readily visible to an inspector.

IV.G.3. The Permittee shall comply with all the applicable requirements of 40 CFR § 264, Subpart CC in accordance with Permit Condition VII and Section O of the approved Permit Application.

IV.H. INSPECTION SCHEDULES AND PROCEDURES

The Permittee shall inspect the container storage areas weekly, in accordance with the Inspection Schedules contained in Section F, Table F-1 of the approved Permit Application, to detect leaking containers and the deterioration of containers and containment systems caused by corrosion and other factors. [40 CFR § 264.174]

IV.I. CONTAINMENT SYSTEMS

IV.I.1. The Permittee shall maintain the containment system in accordance with the plans and specifications contained in Section D of the approved Permit Application. [40 CFR § 264.175]

IV.I.2. The Permittee shall remove spilled or leaked waste and accumulated precipitation from the secondary containment system within (24) hours or in as timely a manner as possible. [40 CFR § 264.175(d)]

IV.J. SPECIAL CONTAINER PROVISIONS FOR IGNITABLE OR REACTIVE WASTE

IV.J.1. The Permittee shall not locate containers holding ignitable or reactive waste within fifteen (15) meters (50 feet) of the facility’s property line. [40 CFR § 264.176]
IV.J.2. The Permittee shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste and follow the procedures specified in Section F.5 of the approved Permit Application. [40 CFR §§ 264.17(a) and 264.17]

IV.K. SPECIAL CONTAINER PROVISIONS FOR INCOMPATIBLE WASTE

IV.K.1. The Permittee shall not place incompatible wastes, or incompatible wastes and materials, in the same container unless 40 CFR § 264.17(b) is complied with. [40 CFR § 264.177(a)]

IV.K.2. The Permittee shall not place hazardous waste in an unwashed container that previously held an incompatible waste or material. [40 CFR § 264.177(b)]

IV.K.3. The Permittee shall not place containers of incompatible wastes within the same secondary containment area unless precautions are taken to prevent the accidental mixing of incompatible waste should a container leak, spill, or otherwise release its contents. [40 CFR § 264.177(c)]

IV.L. RECORDKEEPING

The Permittee shall place the results of all waste analyses, trial tests, and any other documentation showing compliance with the requirements of 40 CFR §§ 264.17(c) and 264.177 in the facility operating record. [40 CFR § 264.73]

IV.M. CLOSURE

At closure of a container storage area, the Permittee shall remove all hazardous waste and hazardous waste residues from the containment systems, in accordance with the procedures in the Closure Plan - Section I of the approved Permit Application, and Section II.K. of this Permit. [40 CFR § 264.178]
SECTION VI – MISCELLANEOUS UNITS – {RESERVED}
SECTION VII - AIR EMISSION STANDARDS

VII.A. AIR EMISSION STANDARDS APPLICABILITY

Air emissions from equipment leaks, tanks and containers are regulated under 40 CFR 264 Subpart BB and CC; however, each of these subparts contain provisions that allow a facility which is also subject to regulation under 40 CFR §§ Parts 60, 61, or 63 to determine and demonstrate compliance with the Subpart BB and CC standards by documenting compliance pursuant to the relevant provisions of the regulations at 40 CFR §§ Parts 60, 61, or 63. Univar Solutions does not operate process vents or equipment that manages hazardous waste, and therefore the requirements of 40 CFR 264 Subpart AA and BB are not applicable to the Facility. However, air emissions from containers are regulated under 40 CFR 264 Subpart CC and have been identified as applicable requirements for the containers managed pursuant to Sections VII of this Permit, and Sections D and O of the approved Permit Application.

VII.B. AIR EMISSION STANDARDS FOR PROCESS VENTS (SUBPART AA) – {RESERVED}

Univar Solutions does not operate any process vents; therefore, this section is not applicable but remains reserved by the Secretary.

VII.C. AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS (SUBPART BB) – {RESERVED}

Univar Solutions does not operate any equipment that contains or contacts hazardous waste with organic concentrations of at least 10 percent by weight; therefore, this section is not applicable but remains reserved by the Secretary.

VII.D. AIR EMISSION STANDARDS FOR TANKS AND CONTAINERS (SUBPART CC)

The Permittee shall comply with all applicable requirements of 40 CFR 264 Subpart CC, and Section O of the approved Permit Application.

VII.D.1 Requirements Applicable to Containers

40 CFR Part 264 Subpart CC regulations applicable to containers of hazardous wastes are found in 40 CFR §§ 264.1086 and 265.1087. There are three levels of air emissions controls for containers based on container size, contents and whether the container is used in a waste stabilization process. The table below determines the applicable control level for a container allowed at the Facility:
<table>
<thead>
<tr>
<th>Container Size</th>
<th>Air Emission Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1 m³ (26.4 gal) to 0.46 m³ (121.5 gal)</td>
<td>Level 1</td>
</tr>
<tr>
<td>&gt;0.46 m³ (121.5 gal)</td>
<td>Level 2</td>
</tr>
</tbody>
</table>

The Permittee is only permitted to operate Level 1 and Level 2. Requirements for Level 1 containers and Level 2 containers are summarized in the following paragraphs:

VII.D.1.a. Container Level 1

Container Level 1 controls require that the hazardous waste is stored in:
(1) containers that meet the Department of Transportation (DOT) regulations on packaging, (2) a container equipped with a cover and closure devices for each opening, or (3) an open top container equipped organic-vapor suppressing barrier.

VII.D.1.b. Container Level 2

Container Level 2 controls require that the hazardous waste is stored in:
(1) containers that meet DOT regulations on packaging, (2) a container that operates with no detectable organic emissions (3) a container that has been demonstrated within the preceding 12 months to be vapor-tight.

VII.E. CONTAINER COVER AND CLOSURE DEVICE

The Permittee shall operate Level 1 container cover and closure devices in accordance 40 CFR §§ 270.27(a)(2), 264.1086(c)(3) and (4) and Section O of the approved Permit Application.

The Permittee shall operate Level 2 container cover and closure devices in accordance with 40 CFR §§ 270.14(a), 270.27, 264.1086(d)(2) and (3) and Section O of the approved Permit Application.

VII.F. INSPECTION AND MONITORING REQUIREMENTS

The Permittee shall inspect Level 1 or 2 containers in accordance with 40 CFR §§ 270.27, 264.1088 and Section O of the approved Permit Application.

VII.G. RECORDKEEPING REQUIREMENTS

The Permittee shall document container inspections on inspection logs which will be maintained at the facility for at least three years from the time of inspection. Recordkeeping shall be performed in accordance with 40 CFR §§ 270.27, 264.1089 and Section O of the approved Permit Application.
ATTACHMENT 1

DEFINITIONS
ATTACHMENT 1

DEFINITIONS

For purposes of the Permit, as provided under Permit Condition I.D., terms used herein shall have the same meaning as those in 40 CFR Parts 124, 260, 261, 264, 266, 268, and 270, as applicable, and as adopted by Secretary, unless the Permit specifically provides otherwise; where terms are not defined in the regulations or the Permit, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

“Ancillary equipment” means any device including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps that is used to distribute, meter, or control the flow of hazardous waste from its point of generation to a storage or treatment tank(s), between hazardous waste storage and treatment tanks to a point of disposal Facility, or to a point of shipment for disposal off-Site.

“Annually” means one time per calendar year such that at least eleven (11) months and no more than thirteen (13) months have elapsed since the last annual event.

“Area of Concern” or “AOC” means any area of the Facility under the control or ownership of the owners or operators where a Release to the environment has occurred, is suspected to have occurred, or may occur, regardless of the frequency or duration of the Release.

“BWM” means the Bureau of Waste Management within the KDHE – Division of Environment.

“Closure Plan” means the closure plan set forth in Section I of the Permit Application, and any subsequent Secretary-approved revisions or modifications to the Closure Plan.

“Contingency Plan” means the contingency plan discussed in Section G of the Permit Application, and any subsequent Secretary-approved revisions or modifications to the Contingency Plan.

“Daily” means once each calendar day, unless expressly stated to be a working day.

“Data Quality Objectives (DQOs)” means performance and acceptance criteria that clarify study objectives, define the appropriate type of data, and specify tolerable levels of potential decision errors that will be used as the basis for establishing the quality and quantity of data needed to support decisions. Unless otherwise approved by the Secretary, the DQOs shall be prepared consistent with EPA Guidance documents; Guidance on Systematic Planning Using the Data Quality Objectives Process EPA QA/G-4, EPA/240/B-06/001, February 2006; Guidance for Developing Quality Systems for Environmental Programs EPA QA/G-1, EPA/240/R-008, November 2002; and any subsequent revisions or editions.

“Day” or “Days” means a calendar day(s) unless otherwise specified.
“Engineering Controls” means any mechanism used to contain, isolate, or stabilize contamination that ensures the effectiveness of a remedial action and acts as a physical barrier between the contamination and contact with humans or the environment.

“EPA” means the United States Environmental Protection Agency.

“Facility” includes the Permittee’s property located at, 5420 Speaker Road, Kansas City, Kansas, including all contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. In addition, for the purpose of implementing corrective action under 40 CFR 264.101, “Facility” also means all contiguous property under the control of the owner/operator.

“Fact Sheet” means a document that meets the requirements of K.A.R. 28-31-124d, that includes the Secretary’s or EPA’s proposed corrective measures decision, and that is substantially consistent with EPA guidance on “Statement of Basis” in EPA/540/G-91/011.

“Hazardous Constituent” means any constituent identified in Appendix VIII of 40 CFR Part 261 where analytical methods exist or any constituent identified in Appendix IX to 40 CFR Part 264.

“Hazardous Waste” means any solid waste as defined in K.S.A. 65-3402(a), or 42 U.S.C. 6903 (27) and 40 CFR 261.2, which also meets the definition of a hazardous waste in K.S.A. 65-3430(e)(1), or any of the criteria of a hazardous waste as listed in 42 U.S.C. 6903(5) and 40 CFR 261.3. The term “hazardous waste” includes “hazardous constituent” as defined above.

“HSWA” means the Hazardous and Solid Waste Management Act of 1984.

“In gas/vapor service” means that the piece of equipment contains or contacts a hazardous waste stream that is in the gaseous state at operating conditions.

“In heavy liquid service” means that the piece of equipment is not in gas/vapor service or in light liquid service.

“In light liquid service” means that the piece of the equipment contains or contacts a waste stream where the vapor pressure of one or more of the organic components in the stream is greater than 0.3 kilopascals (kPa) at 20 degree C, the total concentration of the pure organic components having a vapor pressure greater than 0.3 kilopascals (kPa) at 20 degree C is equal to or greater than 20 percent by weight, and the fluid is a liquid at operating conditions.

“Inspection Schedule” means the inspection schedule set forth in Section F of the approved Permit Application, and any subsequent Secretary-approved revision or modification to the Inspection Schedule.

“Institutional Controls” means administrative and/or legal mechanisms that help limit exposure to humans from contamination and/or protect the integrity of the remedy.
“Interim Measures” means those actions taken to immediately control or abate threats or potential threats to human health or the environment from releases or potential releases of hazardous waste or hazardous constituents, or pollutants, which can be initiated before implementation of the final corrective measures for a facility, or in an emergency situation, for an operating facility only.

“KDHE” means the Kansas Department of Health and Environment.

“Long Term Monitoring” or “LTM” means the collection of samples on an annual or semiannual basis from the monitoring wells associated with SWMUs and AOCs. The purpose of LTM is to demonstrate that contaminant concentrations are not increasing or are decreasing. If LTM shows contaminant concentrations are increasing, the Secretary may evaluate whether changes to the corrective measure or a new corrective measure is necessary.

“Monitored Natural Attenuation” or “MNA” means the collection of samples on an annual or semiannual basis from monitoring wells associated with SWMUs and AOCs. The purpose of MNA is to demonstrate that contaminant concentrations are decreasing due to one or more natural processes in the subsurface. If MNA shows no decreases in contaminant concentrations or that they are increasing, the Secretary may evaluate whether changes to the corrective measure or a new corrective measure is necessary.

“Monthly” means twelve (12) times per year (once per calendar month) such that at least fifteen (15) days and no more than forty-five (45) days have elapsed since the last monthly event.

“PDF format” means the Adobe Portable Document Format developed by Adobe Systems Incorporated. The Permittee may use any other electronic format as agreed upon between the Permittee and KDHE. Reference herein to an “electronic copy” refers to PDF format, or in an alternative searchable electronic format as otherwise agreed to by the Secretary.

“Permit Application” means the approved Permit Application originally submitted 6/18/2021, as modified by subsequent amendments and including the Part A and Part B permit applications, dated 10/29/2019, and 11/09/2021, respectively, any Appendices, Tables, or other Attachments, and any subsequent revisions or modifications, approved by the Secretary.

“Quarterly” means four times per calendar year such that at least two (2) months and no more than four (4) months have elapsed since the last quarterly event.


“RCRA Corrective Action Plan” means the document of the same name dated May 1994 and given the OSWER Directive Number 9902.3-2A and EPA Document Number 520-R-94-004, and any subsequent revisions or editions.
“RCRA Facility Investigation Guidance” means the document of the same name dated May 1989 and given the OSWER Directive Number 9502.00-6D and the EPA Document Number 530/SW-89-031, and any subsequent revisions or editions.

“Release” means any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of hazardous wastes, hazardous constituents, and/or pollutants, into the environment, including the abandonment or discarding of barrels, containers, and other closed receptacles containing hazardous wastes, hazardous constituents, and/or pollutants.

“RSK Manual” means the KDHE Risk-Based Standards for Kansas Manual – 5th Version (October 2010), and any subsequent updates/revisions.

“Secretary” means the Secretary or the Acting Secretary of the Kansas Department of Health and Environment (KDHE), or a designee or authorized representative of KDHE. Any reference to “KDHE” may also mean the “Secretary”.

“Semi-Annually” means two times per calendar year such that at least five (5) months and no more than seven (7) months have elapsed since the last semi-annual event.

“Site” means the Facility, in addition to all areas and media to which hazardous constituents, hazardous wastes, releases and/or any other contamination or pollution that originated at the Facility, have been released and/or have migrated.

“Solid Waste Management Unit” or “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.

“Standard Operating Procedure” or “SOP” means a document that establishes or prescribes methods to be followed in the operation of hazardous waste storage, treatment and disposal activities. All SOPs must be signed by a responsible corporate officer and include the certification in 40 CFR 270.11(d)(1). The responsible corporate officer shall be as defined in 40 CFR 270.11(a).

“Waste Analysis Plan” means the waste analysis plan set forth in Section C of the Permit Application, and any subsequent Secretary-approved revisions or modifications to the Waste Analysis Plan.

“Weekly” means fifty-two (52) times per calendar year such that no fewer than five (5) days and no more than ten (10) days have elapsed since the last weekly event.
“Work day” means a day other than a Saturday, Sunday or State of Kansas holiday. In computing any period of time under this Permit where the last day would fall on a Saturday, Sunday or holiday recognized by the State of Kansas, the period shall run until the end of the next Working Day.
ATTACHMENT 2

PERMITTED WASTE CODES
ATTACHMENT 2

PERMITTED WASTE CODES

The Univar Solutions USA Inc. Facility may accept for storage the following RCRA waste codes identified in Tables A-I, A-II, A-III A-IV, and A-V, as defined in 40 CFR 261 Subparts C and D, subject to the terms of this Permit.

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<thead>
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<th>TABLE A-I</th>
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<tr>
<td>Permitted Characteristic Waste Codes</td>
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### TABLE A-II
Permitted F-Listed Hazardous Waste Codes

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### TABLE A-III
Permitted K-Listed Hazardous Waste Codes

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### TABLE A-V
Permitted P-Listed Hazardous Waste Codes

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### TABLE A-IV
Permitted U-Listed Hazardous Waste Codes

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</table>
ATTACHMENT 3

SWMU & AOC LOCATIONS

1. Map of SWMUs & AOCs from 1996 RFI Report
ATTACHMENT 4

SWMU & AOC DESCRIPTIONS AND SELECTED CORRECTIVE MEASURES

1. Solid Waste Management Unit (SWMUs) & Areas of Concern (AOCs) Descriptions and Status

2. Summary of Corrective Actions Completed at the Facility


4. EPA Certification of Corrective Action Complete Approval Letter (11/10/2009)
## Solid Waste Management Units (SWMUs) & Areas of Concern (AOCs)

<table>
<thead>
<tr>
<th>SWMU / AOC #</th>
<th>Description / General Location</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWMU #1</td>
<td>Loading Dock Hazardous Waste Storage Area</td>
<td>No further action</td>
</tr>
<tr>
<td>SWMU #2</td>
<td>Former 500-Gallon Underground Product Recovery Tank</td>
<td>No further action</td>
</tr>
<tr>
<td>SWMU #3</td>
<td>Water and Solvent Disposal Site</td>
<td>No further action</td>
</tr>
<tr>
<td>SWMU #4</td>
<td>Catch Pans</td>
<td>No further action</td>
</tr>
<tr>
<td>SWMU #5</td>
<td>110-Gallon Holding Tank</td>
<td>No further action</td>
</tr>
<tr>
<td>SWMU #6</td>
<td>Mixed Solvent Accumulation Drums for Line Flushing and Spillage</td>
<td>No further action</td>
</tr>
<tr>
<td>SWMU #7</td>
<td>Mixed Solvent Drums</td>
<td>No further action</td>
</tr>
<tr>
<td>SWMU #8</td>
<td>Former Truck Transfer Area, PB-24 Tank Area, and Railroad Siding Area</td>
<td>No further action</td>
</tr>
<tr>
<td>AOC 9</td>
<td>Buried Pipeline from Tank Farm to Warehouse</td>
<td>No further action</td>
</tr>
<tr>
<td>AOC 10</td>
<td>East Drainage Ditch</td>
<td>No further action</td>
</tr>
<tr>
<td>AOC 11</td>
<td>West Drainage Ditch</td>
<td>No further action</td>
</tr>
</tbody>
</table>
Summary of Corrective Actions Completed at the Facility

November 10, 1987, a RCRA Facility Assessment (RFA) was submitted to EPA. The RFA identified two (2) Solid Waste Management Units (SWMUs); a 500-gallon underground product recovery tank that had been removed and a water/mixed solvent disposal site. It was estimated roughly 300 to 400 gallons of a 50/50 mixture of water and mixed solvents were discarded from the underground tank onto the ground beyond the tank farm. Although no visual evidence of the previously identified SWMUs were noted in the RFA, a SWMU questionnaire submitted to EPA in 1985, site interviews, and historical document review, supported the identification of the two SWMUs and multiple Areas of Concern.

February 19, 1988, a SWMU Release Determination Plan (SRDP) and RCRA Facility Investigation (RFI) was submitted. The scope of the RFI included soil sampling at the two (2) identified SWMUs. Two (2) investigative borings were proposed for the location of the removed underground tank. Three (3) shallow soil borings were proposed at the location of the 1980 water and mixed solvent disposal area. Samples submitted for laboratory analysis were tested for halogenated volatile organic compounds (VOCs) and aromatic VOCs. Surface water and/or sediment sampling for halogenated VOCs and aromatic VOCs was included in the plan as well. On September 19, 1988, EPA/KDHE approved the SRDP/RFI after comments and revisions to the plan were addressed.

January 23, 1989, the facility submitted the Summary Report of RCRA Facility Investigation. Conclusions of the SRDP/RFI suggested significant concentrations of halogenated and aromatic VOCs were present in soil samples collected from the former underground product recovery tank; however, no evidence of VOCs were detected in soil samples collected from the 1980 water/solvent disposal area, and there were no VOCs present in surface water samples collected. Laboratory analysis reported trace levels of contamination in sediment samples collected at the north-central and south-central boundaries of the facility. Elevated VOCs were reported in sediment samples collected in the historic truck transfer area and in the eastern facility boundary surface water runoff accumulation area. The SRDP/RFI recommended a supplemental assessment program to further investigate, which was submitted as Appendix C to the SRDP/RFI.

April 14, 1989, EPA approved with modification the Summary Report of the RCRA Facility Investigation and on December 20, 1989, approved the Supplemental Contamination Assessment Plan with modifications.

September 13, 1990, a draft of the Supplemental Contamination Assessment Report was submitted to EPA. On September 18, 1990, EPA requested an internal review of the draft report. Between September 1990 and May 1991, EPA performed a review of all previously submitted RFI reports to determine if the facility’s efforts satisfied the requirements of the RFI.
May 5, 1991, EPA sent a comment letter to the facility regarding the facility’s efforts to satisfy the requirements of the RFI. EPA, citing multiple previously submitted RFI reports, concluding that:

1. The facility had not fully evaluated the potential for prior or continuing release from all of the SWMUs.
2. The facility had not defined groundwater flow directions, background groundwater quality, and horizontal or vertical extent of groundwater contamination.
3. The facility had not adequately defined horizontal or vertical extent of soil contamination.

EPA informed the facility they must define the sources of existing onsite groundwater and soil contamination in order to meet the requirements of their RCRA Permit.

September 12, 1991, EPA sent the facility a Notice of Violation letter. The facility was in violation of their permit, specifically section IV.B. for not addressing EPA’s comments in the May 5, 1991 letter.


October 23, 1991, Groundwater Technology, Inc., on behalf of the facility, submitted a Work Plan for Characterization on all EPA – Identified Solid Waste Management Units and Areas of Concern. This work plan was submitted in response to the Notice of Violation letter EPA sent the facility on September 12, 1991.


December 5, 1991, EPA sent a letter to the facility approving the “October 22, 1991 Work Plan”. The Kansas Department of Health and Environment (KDHE) does not have record of a work plan submitted on October 22, 1991, but believes, based on the information of this approval letter, EPA is referring to the Work Plan for Characterization on all EPA – Identified Solid Waste Management Units and Areas of Concern submitted on October 23, 1991. In this approval letter, EPA commented that, “Implementing this plan together with a groundwater monitoring plan should result in the completion of the RCRA Facility Investigation (RFI)”.

During a well gauging event in December 1991, light non-aqueous phase liquid (LNAPL) was detected in three (3) monitoring wells. As an interim measure, the accumulation of LNAPL in the three wells was recorded and a removal system was designed and installed. A product only pump was used to remove the product until March 1992, by which time the LNAPL had dissipated.

From December 4, 1991 through mid-1992, there were multiple correspondences, comments, and revisions to the workplan for additional groundwater investigation. On April 24, 1992, a revised RFI work plan for additional groundwater investigation to include LNAPL was
submitted. The final groundwater investigation workplan was submitted on August 28, 1992 and approved with comment by EPA on September 8, 1992.

Groundwater Technology, Inc., on behalf of the facility, performed RFI activities following the approval of the 1992 groundwater investigation. The Supplemental RCRA Facility Investigation Report was submitted in February 1993. An additional Supplemental RCRA Facility Investigation Report was submitted on March 15, 1996. Although not mentioned in the March 15, 1996, Supplemental RCRA Facility Investigation Report, which was approved by EPA on September 22, 2000, interim measures were previously discussed in the February 9, 1993, Supplemental RCRA Facility Investigation Report. These proposed interim measures for the facility are later discussed and evaluated in the Corrective Measures Study (CMS).

September 22, 2000, EPA approved the Supplemental RCRA Facility Investigation Report, dated March 15, 1996. In the approval letter EPA informed the facility the next steps following their RCRA permit was to submit a CMS.

February 2001, URS Corporation, on behalf of the facility, submitted the CMS. A pilot study for a combined air sparging/SVE system to evaluate the applicability of these potential alternatives as a corrective measure for the site was submitted along with the CMS. The Corrective Measures Implementation Plan was also submitted at this time.

The air sparging and soil vapor extraction (AS/SVE) system pilot test was conducted from January 18 through January 20, 2000. The pilot test was successful, and the full-scale system was installed during July and August 2000. Following installation, the system was operated from December 20, 2000, until March 8, 2001, as a startup period to identify and correct any potential design or mechanical problems. During this period, the system accumulated 67 days of run time, removing an average of 18 pounds per day of VOCs. The system was inactive following the initial startup period pending EPA approval of the Corrective Measures Implementation Plan. The Corrective Measures Implementation Plan was approved March 1, 2004, and an injection permit for air sparging was granted by KDHE Bureau of Water on July 1, 2004. With approval, the AS/SVE system operated from January 10, 2005 to January 10, 2006. Annual groundwater monitoring reports were submitted, starting in 2004. Groundwater samples were analyzed for volatile organic compounds (VOCs), chlorinated VOCs, methane, ethane and ethene, chloride and sulfate, and nitrate.

November 21, 2006, URS, on behalf of the facility, submitted a Class 3 permit modification request. The request applied to Part II (only) of the permit issued by the EPA to address the corrective action requirements for SWMUs and other Hazardous and Solid Waste Amendments requirements in the form of a “Corrective Action Complete” determination for the facility. Groundwater samples collected through November 2007 (eight consecutive quarters) following shut down of the AS/SVE system continued to exhibit volatile organic compound (VOC) concentrations below their respective MCLs. The facility presented EPA with extensive groundwater monitoring reports, showing that concentrations of all constituents of concern in site groundwater were below action levels and had remained so. July 31, 2008, the facility sent a
letter to EPA requesting EPA concurrence to suspend annual groundwater sampling at the facility while awaiting final approval of the pending Class 3 RCRA Permit modification.

In response to the draft permit modification request, EPA prepared a public notice for the proposed permit modifications. The public notice was submitted by the EPA for public comment on September 15, 2008. Following the public comment period, EPA prepared a Final Decision and Response to Comments letter. The letter briefly summarized the corrective actions taken at the site and that the groundwater monitoring reports showed adequate information for the suspension of groundwater monitoring.

January 21, 2009, URS, on behalf of the facility, submits a Well Abandonment/Remediation System Closure Work Plan that EPA approved on March 4, 2009. On February 3, 2009, EPA sent a letter to the facility addressing the Final Remedy Selection and Part II Permit Modification. The public comment period had ended, and no comments were received, therefore EPA was moving forward with the Part II Permit Modification. The Part II Permit Modification reflects EPA’s determination that corrective action is complete without controls. The facility performed the completion activities as detailed in the Permit Modification and submitted the Certification of Correction Action Completion Report to the EPA on August 19, 2009. The facility received approval of the correction action completion report from the EPA on November 10, 2009.
Ashland Distribution
5420 Speaker Road
Kansas City, Kansas 66106
RCRA ID# KSD057889313

In accordance with 40 CFR 270.41(a)(2), EPA has determined that changes were necessary to Part II of the Permit issued on September 29, 2000, to the subject facility at 5420 Speaker Road, Kansas City, Kansas to reflect the agency’s determination that corrective action is complete without controls.

Part II of the Permit was issued to Ashland Distribution Company (Ashland) by EPA to address the requirements of the Hazardous and Solid Waste Amendments of 1984 to the Resource Conservation and Recovery Act because Kansas was not authorized to permit those RCRA requirements.

Soil and groundwater sampling at the site identified the chemicals of concern (COC) as various volatile organic compounds (VOCs), primarily toluene, xylenes, trichloroethylene, dichloroethene, tetrachloroethylene and methylene chloride. Contaminated soils were the main source for groundwater contamination. Hot spots of highly contaminated soil were excavated onsite and a groundwater monitoring system was installed and expanded upon over the years.

Several corrective action remedial alternatives were evaluated by Ashland including air sparging/soil vapor extraction (AS/SVE). The nature of the contamination and subsurface conditions were shown by pilot testing in January, 2000 to be suitable for AS/SVE. A complete system was installed and put into operation the following year after EPA approved the Corrective Measures Implementation Plan (CMI) for this technology.

Groundwater monitoring up through 2007 has shown that concentrations of all constituents of concern are below the action levels of maximum contaminant levels (MCLs) set forth under this Permit and have remained so for over two years. Therefore, the Director has cause to modify Part II of the Permit pursuant to 40 CFR 270.41(a)(2). EPA prepared a draft permit modification in the form of “Corrective Action Complete Without Controls” determination for the facility.

In accordance with 40 CFR 270.42(2), a 60-day public comment period was conducted from September 15, 2008 to November 15, 2008, with notification of review of the permit modification being provided via newspaper publication and fact sheet mailings. An Administrative Record with all relevant background material for review was made available for
public viewing at the Kansas City Kansas Public Library, West Wyandotte Branch and at EPA Region VII Office in Kansas City, Kansas. No formal comments were submitted during the public comment period. No modifications or changes to the proposed draft permit modification were made as a result of the public comment period. Ashland will perform completion activities as detailed in the Permit Modification and submit a Certification of Corrective Action Completion to EPA within 60 days of notification.

Although modified, Part II of the Permit shall remain in place to address any future RCRA hazardous waste issues that may arise since Kansas is not authorized at this time to permit those RCRA requirements.

Based on the administrative record compiled for this permit modification of “Corrective Action Complete Without Controls”, I have determined that this modification for the Ashland Distribution site in Kansas City, Kansas will be protective of human health and the environment.

If you have any questions and/or additional comments, please contact me at ext. 7652.

Attachment

Approved

Disapproved

Date
Mr. Michael Dever  
Remediation Project Manager  
Ashland Chemical Company, Inc.  
5200 Blazer Parkway  
Dublin, Ohio 43017

RE: Certification of Corrective Action Complete for the Ashland Distribution  
Kansas City Facility, 5420 Speaker Road, Kansas City, Kansas

Dear Mr. Dever:

The Environmental Protection Agency (EPA) has completed review of the document titled “Certification of Corrective Action Completion Report for the Ashland Inc., Kansas City Kansas Facility, EPA I.D. No. KSD 057889313” dated August, 2009. This report sufficiently details those corrective action completion activities taken to meet those included in Section III.1.2 of the December 23, 2008 final part II permit modification. Therefore, approval of the Corrective Action Completion Certification is given and all corrective action and groundwater monitoring under Part II of the Permit is considered complete.

Part II of the Permit was issued to Ashland Distribution Company (Ashland) by EPA to address the requirements of the Hazardous and Solid Waste Amendments of 1984 to the Resource Conservation and Recovery Act (RCRA). Although modified, Part II of the Permit shall remain in place to address any future RCRA hazardous waste releases at the facility that may arise.

If you have any questions regarding this letter or other issues pertaining to Part II of the Permit, please contact Harry Gabbert of my staff at (913) 551-7652.

Sincerely,

[Signature]
Lynn Slugalski  
Chief  
RCRA Corrective Action and Permits Branch  
Air and Waste Management Division

cc: Mostafa Kamal, KDHE
ATTACHMENT 5

CONTAMINATES OF CONCERN AND SOIL AND GROUNDWATER PROTECTION STANDARDS - RESERVED
ATTACHMENT 6

GROUNDWATER MONITORING SYSTEM - RESERVED
ATTACHMENT 7

DESCRIPTION OF CURRENT CONDITIONS REPORT
SCOPE OF WORK
ATTACHMENT 7
DESCRIPTION OF CURRENT CONDITIONS REPORT
SCOPE OF WORK

PURPOSE

The purpose of a Description of Current Conditions (DCC) Report is to document pertinent background information to facilitate identification of potential contamination sources and to characterize current site conditions. The DCC Report shall include information gathered during any previous investigations, inspections, corrective action/interim measure activities, and any other relevant data/information. In addition, as applicable, the DCC Report shall determine whether or not current human exposures and migration of contaminated groundwater are under control. Specifically, the DCC Report must evaluate whether current human exposure to environmental contamination is occurring at unacceptable levels and assess migration of existing groundwater contaminant plumes to verify whether or not plumes are expanding or adversely affecting nearby surface water bodies. As required, development and submittal of a DCC Report may be accomplished in advance of or during the RCRA Facility Investigation (RFI). Independent of the RFI, the Secretary may also require submission of a DCC Report to provide baseline conditions or update current conditions at the Site (e.g., to supplement RCRA Part B permit renewal application).

SCOPE

As required, consistent with Section III.G of the Permit, the Permittee shall submit for the Secretary’s approval a DCC Report providing the following information:

A. Facility Background

The DCC Report shall summarize the regional location, pertinent boundary features, general Site physiography, hydrogeology, and historical use of the Site for the treatment, storage, or disposal of solid and hazardous waste. At a minimum, the report shall include:

1) Map(s) of sufficient detail and accuracy, consistent with the requirements set forth in 40 CFR 270.14, depicting:
   a. General geographic location;
   b. Property lines, with the owners of all adjacent property clearly indicated;
   c. Topography, with an appropriate contour interval and scale of 1 inch = 100 feet, showing all waterways, wetlands, floodplains, water features, drainage patterns, and surface water containment areas;
   d. All tanks, buildings, utilities, paved areas, easements, rights-of-way, and other features;
   e. All solid or hazardous waste treatment, storage, or disposal areas active after November 19, 1980;
f. All known past solid or hazardous waste treatment, storage, or disposal areas regardless of whether active on November 19, 1980;
g. All known past spill, fire, or other accidental release locations;
h. All known past and present product/waste underground tanks or piping;
i. Surrounding land uses, such as residential, commercial, industrial, agricultural, recreational, or other uses required by the Secretary;
j. Location of all past and present injection, production, and groundwater monitoring wells, at and in the vicinity of the Site, with wells clearly labeled, and ground surface and top of casing elevations included on map or as table summary (well construction details may be included as attachment); and,
k. Wind rose and meteorology data.

2) History and description of ownership and operation, solid and hazardous waste generation, and, treatment, storage and disposal activities at the Site;

3) Approximate dates or periods of past product and waste spills, identification of materials spilled, amount spilled, location where spilled, and description of response actions conducted, including any inspection/technical reports generated as a result of response; and,

4) Summary of past permits requested and/or received, any enforcement actions taken and subsequent outcomes/responses, and a list of documents and studies prepared related to the Site.

B. Nature and Extent of Contamination

The DCC Report shall present existing information on the nature and extent of contamination. At a minimum, the report shall include:

1) Summary of all possible source areas of contamination, including all regulated units, solid waste management units (SWMUs), areas of concern (AOCs), spill areas, and other suspected source areas of contamination, with identification of the following for each unit/area:
   a. Location of unit/area (depicted on a facility map);
   b. Quantities of solid and hazardous wastes (both managed and spilled/released);
   c. Type of hazardous waste or hazardous constituents, both causing or potentially causing contamination, to the extent known;
   d. Identification of areas where additional information is necessary; and,
   e. Proposal/schedule for acquisition of additional information.

2) Preliminary assessment and description of the existing degree and extent of contamination including:
a. Available monitoring/sampling data for all media, and evaluation of contaminant transport mechanisms between environmental media;

b. General assessment of data quality and indication of whether contaminant migration beyond the Facility boundary has occurred;

c. Qualitative, or, if available, definitive depiction of locations and levels of contamination at the Site on a map(s) showing sampling locations in relation to potential source areas, as well as contaminant distribution;

d. All potential migration pathways including information on geology, soils, hydrogeology, physiography, hydrology, water quality, meteorology, and air quality;

e. Potential impact(s) on human health and the environment, including demography, identification of possible sensitive subpopulations (e.g., schools, nursing homes, hospitals, ecosystems, or other subpopulations required by the Secretary) groundwater and surface water use, and land use; and,

f. Brief description of all previous investigations at the Site including date, purpose, and results.

C. Implementation of Interim Measures

The DCC Report shall document all Interim Measures (IMs) which were, or are, being undertaken at the Site. At a minimum, the report shall include:

1) Objectives of IM implementation with discussion of how each measure is mitigating a potential threat to human health and the environment and/or is consistent with and integrated into any long-term corrective measures at the Site;

2) Design, construction, and operation and maintenance (O&M) requirements for each IM;

3) Schedule for design, construction, monitoring, progress reporting of each IM; and, if applicable,

4) Data in support of the potential need for future IMs or related to any assessment undertaken to determine the need for future IM.

D. Establishment of Institutional Controls

The DCC Report shall provide a summary of all Institutional Controls (ICs) which are currently in place for the Site. In addition, copies of relevant documents and declarations such as deed restriction, Environmental Use Control Agreement (EUCA), or other IC’s shall be included as an attachment to the DCC Report.
E. **Environmental Indicator Assessment**

The DCC Report shall include an assessment of whether the current data supports achievement of the following U.S. Environmental Protection Agency (EPA) Environmental Indicators: *Current Human Exposures Under Control, and Migration of Contaminated Groundwater Under Control*. Unless otherwise directed or approved by the Secretary, the assessment shall be performed in accord with EPA guidance available at [https://www.epa.gov/hw/measuring-progress-resource-conservation-and-recovery-act-rhra-corrective-action-facilities#whatare](https://www.epa.gov/hw/measuring-progress-resource-conservation-and-recovery-act-rhra-corrective-action-facilities#whatare).
ATTACHMENT 8

RCRA FACILITY INVESTIGATION
SCOPE OF WORK
ATTACHMENT 8

RCRA FACILITY INVESTIGATION
SCOPE OF WORK

PURPOSE

Permittee shall conduct a RCRA Facility Investigation (RFI), where required by the Secretary, and submit an RFI Report, consistent with Section III.I of the Permit. The purpose of an RFI is to determine the nature, extent, direction, rate, movement, and concentration of Releases from regulated units, solid waste management units (SWMUs), areas of concern (AOCs), and other source or Release areas at the Site. The information gathered during the RFI is used to determine potential human health and ecological risks, and to support development and implementation of interim measure (IM) and/or corrective measure (CM) activities, as necessary. The RFI should be tailored to the Site-specific conditions and focused on the units, Releases, and exposure pathways of concern. Subject to the Secretary’s approval, the RFI may be implemented in a phased manner based on Site-specific needs as long as all RFI objectives are fully and timely satisfied.

OBJECTIVES

The RFI must meet the following primary objectives:

1) Determine and describe current Site conditions, as required;

2) Identify and fully evaluate the known and suspected primary origin(s) or source(s) of contamination at the Site, including identification of all chemicals used and wastes generated/managed/stored/disposed, to facilitate determining the mechanisms of release, estimating the quantities of Release, and determining whether these Releases are ongoing or inactive;

3) Delineate and fully characterize the nature, and lateral and vertical extent of contamination for all known and suspected contaminants of concern (COCs) for all affected or potentially affected environmental media at the Site;

4) Characterize the environmental setting, including regional and local geology, hydrogeology, and hydrology, particularly as those physical characteristics may pertain to contaminant transport and fate mechanisms or may affect the evaluation, selection, and design of corrective measure alternatives for the Site;

5) Characterize the physiochemical properties of all known and suspected COCs, their mobility and persistence in the environment, and their important fate and transport mechanisms as they relate to the physical characteristics of the Site;

6) Identify and evaluate all potential human and ecological receptors that may be threatened or affected by all COCs associated with the Site;
7) Develop a conceptual Site model (CSM) of Site conditions depicting what is known or suspected about the sources, Releases and release mechanisms, contaminant fate and transport, exposure pathways and potential receptors, and human health and ecological risks;

8) Revise/update the CSM as more information becomes available to determine the need for additional investigation, to support risk-based decisions, and to aid in identification and design of potential corrective measure alternatives;

9) Utilize KDHE’s October 2010 Risk-Based Standards for Kansas RSK Manual – 5th Version (RSK Manual), and any subsequent updates, and/or other applicable KDHE-approved threshold levels, to perform rapid assessment of human health risk, and to facilitate determination of cleanup goals for the Site;

10) Utilize U.S. Environmental Protection Agency (EPA) Region 6 Ecological Exclusion Criteria Worksheet and Ecological Assessment Checklist to perform a rapid assessment of ecological risk, and to facilitate determination of cleanup goals for the Site;

11) As determined necessary by the Secretary, perform a Site-specific quantitative baseline human health risk assessment (HHRA) and screening level ecological risk assessment/baseline ecological risk assessment (SLERA/BERA) to determine whether and the extent to which the Site requires corrective action;

12) Perform bench- or pilot-scale treatability study testing, as required, to support development of potential corrective measure alternatives and/or corrective measures design;

13) Develop a preliminary list of Site-specific corrective action objectives and corresponding potential corrective measure alternatives; and,

14) Evaluate the need for IM implementation for source control purposes and/or to mitigate imminent threats to human health and/or the environment consistent with the Secretary’s RCRA Interim Measures Scope of Work (Attachment 10).

Besides all known or suspected discharges, releases, or spills, the RFI is required to also fully assess any and all secondary contamination issues, including daughter/degradation products and from mobilization of naturally-occurring elements/substances in the presence of Site-related contamination. In addition, if there is any uncertainty in Site history and potential release mechanisms, the Secretary may require a broader, more robust sampling and analytical program in the early stages of the RFI to ensure complete identification/quantification of all known and suspected Site-related COCs. Also, consideration of current and anticipated future land use may result in a more rigorous sampling and analytical program. Initial RFI results will be used to focus, to the extent possible, any future sampling and analysis associated with the Site.

**SCOPE**
After a Corrective Action Agreement Meeting\(^1\) to establish framework, objectives, criteria, and expectations; identification of SWMUs, AOCs, and other source or release areas, or conducting a RCRA Facility Assessment (RFA), as required; and, a RFI Scoping Meeting\(^1\), Permittee will develop and implement a RFI consisting of each of the following steps:

**STEP 1: DESCRIPTION OF CURRENT CONDITIONS (as required)**

As required by the Secretary, prior to or as a component of the RFI Work Plan, the Permittee shall submit for the Secretary’s approval a Description of Current Conditions (DCC) Report providing the background information pertinent to the Site. Consistent with the Secretary’s Description of Current Conditions Report Scope of Work (Attachment 7), the DCC Report shall include information gathered during any previous investigations, inspections, interim measure activities, and any other relevant data, which helps to identify potential sources of contamination and characterize the current Site conditions.

**STEP 2: RFI WORK PLAN DEVELOPMENT AND IMPLEMENTATION**

The Permittee must prepare and submit to the Secretary for review and approval an RFI Work Plan describing in detail all activities proposed to satisfy the RFI objectives before any investigation activities commence, unless otherwise required or approved by the Secretary. The RFI Work Plan shall, at a minimum, include the following project- or Site-specific components: 1) field sampling plan; 2) quality assurance project plan (QAPP); and, 3) health and safety plan. A detailed RFI working schedule, presented graphically in the form of a milestone chart (e.g., Gantt chart) to show the duration and interdependencies of the various activities must be included in the RFI Work Plan.

A field sampling plan provides the guidance for all fieldwork by defining in detail the sampling and data gathering methods and standard operating procedures (SOPs) to be used. The field sampling plan shall be written so that a field sampling team unfamiliar with the Site would be able to gather the required samples and field information. A QAPP describes the policy, organization, functional activities, and quality assurance and quality control protocols necessary to achieve the data quality objectives dictated by the intended use of the data. The Secretary requires that QAPPs be prepared in general accord with available EPA guidance titled *Requirements for Quality Assurance Project Plans* (QA/R-5) (EPA 2006) and *Guidance for Quality Assurance Project Plans* (G-5) (EPA 2002). Key components of a QAPP must include quality assurance objectives for data, sample custody and handling, data generation and acquisition, standard operating procedures, report and data management, project management elements, laboratory QAPP, and data validation and usability. Permittee may be required to update the QAPP throughout a project’s lifecycle to ensure that the document encompasses all Site-related activities. A health and safety plan prepared to support the field effort must conform to the Permittee’s or contractor’s health and safety program, which must, in turn, be in compliance with requirements of the Occupational Safety and Health Administration (OSHA). Although submittal to the Secretary is necessary for completion of the Administrative Record (AR) file for a given Site, please note that the Secretary does not customarily approve the Permittee’s health and safety plan.
In general, a detailed description of field activities to satisfy the primary objectives of the RFI must be included in the RFI Work Plan. RFI activities may include any of several components including, but not limited to, the following: investigation of waste, soil, groundwater, surface water, sediment, air or biota; geotechnical evaluations; inspection and tightness testing of tanks, pipelines, sewers, or other areas or containers; water well surveys; geophysical surveys; land elevation surveys; personnel interviews; or other relevant activities, or activities as required by the Secretary. The Permittee must include all data gathered during the investigation in the RFI Report. The Permittee must propose sufficient biased/unbiased grid sampling to ensure meeting RFI objectives. With the Secretary’s prior approval, the RFI may be implemented in a phased manner; however, the Secretary’s expectation is that the total duration of the investigative effort be limited to the extent possible, generally within six months to a year. If a phased investigation program is proposed, the initial work plan submittal shall describe the anticipated scope and schedule of each investigative phase to avoid unnecessary delays in the investigation process. In addition, the Secretary may require interim reports/memoranda to support a phased implementation prior to submittal of the RFI Report.

The RFI Work Plan shall, at a minimum, include a review of available information and documented findings, including, but not limited to the following: description of physical location, including legal description, and street address of the Facility and Site; complete summary of ownership/operational history of the source Facility and ownership status of other nearby affected properties; Facility layout identifying operational features and chemical/waste management/storage/disposal areas or units, such as vapor degreasers and sumps; description of all past and present activities/operations conducted, including the nature of business operations, chemicals used, wastes generated, chemical and waste disposal methods, and records or descriptions of all known discharges, releases, spills, and other relevant information, or as required by the Secretary; a description of the physical Site characteristics, such as the geology, hydrogeology, surface water hydrology, meteorology, past/present land use, and other relevant information; a detailed description of the type(s) of contaminants/wastes involved, Release characteristics and contaminated media; evaluation or investigation objectives; and, detailed procedures for determining waste distribution as well as the nature and extent of contamination, and an evaluation of all exposure pathways of concern. Environmental permits issued relative to past or present business operations should be identified. Descriptions of any previous environmental investigations conducted at the Site and summaries of the significant findings of those investigations shall be included. While acceptance and use of data for the purposes of the RFI is subject to the Secretary’s approval, the Secretary encourages consideration of previously collected data or investigation results for the purpose of focusing or optimizing the proposed RFI effort. However, if those previous data collection or investigation efforts were collected without the Secretary’s oversight, then the Secretary may require verification sampling at key locations to corroborate the earlier data/results.

The RFI Work Plan must: summarize available historical records including drawings, aerial photographs, plot plans, and as-builts, encompassing the entire Site history to ensure comprehensive identification of all known or potential COCs; provide a listing and corresponding map of chemical/waste management/storage/disposal areas and wastewater management units; and, provide a written summary of all wastes generated and management/storage/disposition methods. Focus in the RFI Work Plan should be on known and suspected source areas such as,
but not limited to, the following: pits; holding ponds, waste ponds or surface impoundments; drains, oil/water separators; vapor degreasers; drum storage areas; loading docks or racks; earthen mounds, fill and soil disturbance areas; landfill, landfarm or land application areas; conveyance piping; tanks; stained soil and standing liquid areas; septic tank and lateral field areas; and, any other chemical/waste management/storage/disposal areas and wastewater management units.

Through conduct of the RFI at a given Site, besides assessing the distribution of any wastes present, the Permittee shall fully delineate the lateral and vertical extent of contamination for all known and suspected COCs for all affected or potentially affected environmental media. Potential media to be investigated during the RFI shall include surface and subsurface soils, groundwater, surface water, sediment, air, including the vapor intrusion into indoor air pathway, and biota. To accomplish these activities, this component of the RFI may include monitoring well or piezometer installation, soil boring/sampling, soil or groundwater probing/sampling, field and laboratory analyses, geophysical surveys, hydrogeological evaluations, surveying, computer modeling, and biota studies, among others. The Permittee must collect analytical data of appropriate data quality and quantity to facilitate comparison to applicable threshold levels as established in KDHE’s Risk-Based Standards for Kansas RSK Manual (RSK Manual) or support a more thorough evaluation of risks posed through conduct of a quantitative baseline risk assessment, such as HHRA and SLERA/BERA, if one is to be performed, and to support the evaluation of potential corrective measures alternatives. In addition, Permittee shall perform a rapid assessment of ecological risk using the EPA Region 6 Ecological Exclusion Criteria Worksheet and Ecological Assessment Checklist at this stage. (Attachment 9)

The Permittee shall validate all data at the appropriate field or laboratory quality control level to determine whether it is appropriate for its intended use. Data quality is of critical importance because decisions about how to appropriately manage the relative risk to human health and the environment depend on the quality of data collected for a project. Quality Control (QC) samples will be collected by the Permittee during each sampling event to help evaluate data quality and usability. The number and types of QC samples collected is typically specified in the QAPP and will vary depending on the types of sampling being performed, types of equipment used, number of samples collected, analytical methodology, and intended use of the data. The following are the most common types of QC samples collected and analyzed during an RFI: field duplicate samples; equipment rinsate samples; trip blank samples; field blank samples; matrix spike and matrix spike duplicate samples; performance evaluation samples; split samples; laboratory control and laboratory control duplicate samples; and, method blank samples.

**STEP 3: BASELINE RISK ASSESSMENT (as required/optional)**

Information and environmental data collected and validated by the Permittee as representative of Site conditions are used to qualitatively or quantitatively assess the potential excess human health risk and/or ecological risk posed by the Site in the absence of remediation. For simplicity, this is typically accomplished through direct comparison to the Tier 2 Levels which become the default cleanup goals for a Site, or through other methods of analysis, as provided in KDHE’s RSK Manual. However, in lieu of such direct comparison or simplified tier analysis, a Site-specific quantitative baseline risk assessment, such as HHRA and SLERA/BERA may either be proposed by the Permittee or required by the Secretary to evaluate human health and ecological risk and
facilitate determination of cleanup goals for a Site. If the Secretary determines that the completion of a quantitative risk assessment is appropriate, the Permittee may, at their option, perform such risk assessment for submittal to the Secretary for review and approval. The Secretary typically utilizes an outside contractor to support technical review and discussion of risk assessment documents. Alternatively, the Permittee may elect to have the Secretary, utilizing outside contractor support, perform the risk assessment. In either case, the Secretary’s direct and indirect costs associated with oversight or conducting of risk assessment activities will be reimbursed by the Permittee.

Prior to performing the risk assessment, the Permittee must submit a baseline risk assessment work plan that, among other items, provides a Site-specific exposure conceptual model, which either graphically illustrates or clearly identifies the impacted media and all the primary and secondary exposure pathways, lists all contaminants of concern, standard exposure parameters, current and future land use assumptions, methodologies for determining reasonable maximum exposure point concentrations, proxy determinations, and other statistical considerations. The quantitative baseline risk assessment must be performed in accordance with KDHE policy in a manner consistent with available EPA guidance at https://www.epa.gov/risk/risk-assessment-guidelines and www.epa.gov/risk/. All risk assessment work plan documentation must be approved by the Secretary prior to commencing risk assessment activities. Resultant risk assessment reports must then be submitted to the Secretary for review and approval. Permittee’s coordination with the Secretary is required throughout the risk characterization process and cleanup goal determination process. However, early on scoping discussions between the Secretary and the Permittee as part of work plan development will be critical to the overall success of the risk assessment effort. Ultimately, the Secretary will make all final risk management decisions related to the Site.

**STEP 4: TREATABILITY STUDIES/MODELING/ADDITIONAL DATA ACQUISITION**

*(as required/optional)*

To keep the RFI process on schedule, the Secretary may deem it appropriate for the Permittee to identify and initiate any bench- or pilot-scale treatability study testing necessary to evaluate corrective measure alternatives early in the RFI process. Treatability studies are conducted to provide sufficient data to allow treatment alternatives to be fully developed and evaluated during the corrective measures study (CMS) process and to support the subsequent remedial design of the corrective measures ultimately selected by the Secretary. Treatability studies also serve to reduce cost and performance uncertainties to acceptable levels for treatment alternatives under consideration to allow a more reliable corrective measures selection process. Examples of treatability data gathering activities that might be performed during the RFI include aquifer pumping tests, soil vapor extraction pilot tests, or bench- or pilot-scale applications of innovative technologies to evaluate their applicability to Site wastes and contamination. All treatability studies/modeling/additional data acquisition activities must be completed by the Permittee in a manner consistent with available KDHE policy and guidance. If there is a desire or requirement to conduct such activities, the Permittee must first submit an appropriate work plan for the Secretary’s review and approval. At the Secretary’s discretion, the Permittee’s reporting associated with treatability study/modeling/additional data acquisition activities may be reported separately or incorporated into the RFI Report. Similar to baseline risk assessments, the Secretary typically utilizes an outside contractor to support technical review and discussion of environmental
modeling documents, for example a groundwater fate and transport model work plan and report. The Secretary’s direct and indirect costs associated with oversight or conduct of environmental modeling activities will be at the Permittee’s expense.

**STEP 5: RFI REPORT**

Consistent with Section III.I.3, of the Permit, upon completion of all investigative/evaluation activities necessary to fully achieve the RFI objectives, the Permittee must submit an RFI Report to the Secretary, in a timeframe consistent with the implementation schedule in the approved RFI Work Plan, for review and approval. The RFI Report must include all information and data collected during the investigation and describe in detail the work performed to accomplish the objectives as set forth within this scope of work (SOW) attachment. The RFI Report format shall be consistent with this SOW attachment and include appropriate tables, figures, well logs, laboratory analytical data, references, appendices, etc. to effectively portray the data generated during the investigation and to support any conclusions drawn in the RFI Report. The RFI Report shall present the results of the RFI including, but not limited to, the following:

1) Summary of Site investigation/evaluation work completed with relevant presentation of the data in figures and tables, including appendices with all ancillary documentation such as field notes; photographs; chain-of-custody records; laboratory reports; survey reports; data validation summary; and all other relevant information.

2) Description of all COCs, including a discussion and summary of data collected with appropriate QA/QC and data validation information;

3) An evaluation of possible exposure pathways including areal extent of all COCs;

4) A preliminary list of corrective measure objectives, corresponding potential corrective measure alternatives and initial identification of key regulatory requirements that may have bearing on corrective measures implementation;

5) Comparison of data collected to appropriate threshold levels, such as Tier 2 Levels in the RSK Manual; and,

6) Conclusions and recommendation(s), and if applicable, a proposal for further investigation and/or interim measure activities.

Once samples have been collected and data reported by the laboratory, Permittee shall assess the quality of the data to ensure it is precise, accurate, representative, complete, and comparable before relying on it to support project decisions. The procedures and thresholds for evaluating data quality are typically laid out in the QAPP. It is the Secretary’s general expectation that data validation be performed in accord with EPA Contract Laboratory Program’s *National Functional Guidelines for Superfund Organic Methods Data Review* (EPA 2017) and *National Functional Guidelines for Superfund Inorganic Methods Data Review* (EPA 2017), or as otherwise approved by the Secretary. Together, these documents identify methods for evaluating and documenting the quality of analytical data for the majority of contaminants encountered at sites in Kansas. In all cases,
Permittee must incorporate data validity into reporting documentation in the form of a data validation summary. The data validation summary should describe all data validation activities and discuss, in detail, the results of analysis of quality control samples and their effect on primary data. The summary should provide an overall assessment of the data evaluated with respect to precision, accuracy, representativeness, completeness, comparability, and the general acceptability and usability of the data.

Upon Permittee’s successful completion of the RFI effort, the Secretary will determine the path forward for future Site activities to be conducted by the Permittee, including further investigation, development of a presumptive corrective measures design concept, detailed evaluation/comparative analysis of cleanup alternatives through a separate CMS process, interim measure design/implementation, and/or implementation of the corrective measures selected by the Secretary with consideration of public input on the Fact Sheet.

\(^1\)Face-to-face meetings or teleconferences between the Secretary and Permittee are strongly encouraged to achieve consensus on approach and overall streamlining of the corrective action process.
ATTACHMENT 9

ECOLOGICAL EXCLUSION SCREENING
SCOPE OF WORK
**INTRODUCTION**

With minor modification, the Kansas Department of Health and Environment (KDHE) has adopted the ecological exclusion screening methodology developed by the U.S. Environmental Protection Agency (EPA) Region 6 to help facilities and regulators determine whether or not further ecological evaluation is necessary at an affected property where corrective action is contemplated. The methodology includes use of an Ecological Exclusion Criteria Worksheet and an Ecological Assessment Checklist to facilitate such determinations, as required by Section III.I.4.a of the Permit.

Utilizing the Ecological Exclusion Criteria Worksheet, the ecological screening process involves initial collection of general information about the Facility operations, physical Site characteristics, ecological habitats, and receptors. A determination is then made as to whether incomplete or insignificant exposure pathways exist at the affected property thereby eliminating the need for further ecological evaluation.

If an area cannot be excluded from further evaluation, the Permittee shall collect more detailed information about ecological areas utilizing the Ecological Assessment Checklist to assist in determining the need for further ecological risk evaluations. If the ecological area meets the exclusion criteria, then the Permittee shall document the Site conditions and justification(s) for how the criteria have been met within the rapid assessment of risk section of the RCRA Facility Investigation (RFI) Report. Upon review and approval of the exclusion by the Secretary, further evaluation of ecological risk will not be required.

If the affected property does not meet the exclusion criteria, then the Secretary may require Permittee to conduct a screening level ecological risk assessment/baseline ecological risk assessment (SLERA/BERA). Permittee shall conduct additional ecological risk screening/assessment following EPA’s *Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments* dated June 5, 1997 and *Guidelines for Ecological Risk Assessment* (EPA/630/R-95/002F) dated April 1998, or other guidance for ecological risk evaluation as approved by the Secretary.

**ECOLOGICAL EXCLUSION CRITERIA WORKSHEET**

The Ecological Exclusion Criteria Worksheet is intended to facilitate determination of whether or not further ecological evaluation is necessary at an affected property where corrective action may be required. Exclusion criteria refer to those conditions at an affected property which preclude the need for a formal ecological risk assessment, such as a SLERA/BERA, where there are incomplete or insignificant ecological exposure pathways due to the nature of the affected property setting and/or the condition of the affected property media. The worksheet is designed for general applicability to all affected property; however, there may be unusual circumstances which require professional judgment or technical support, such as, consultation with U.S. Fish and Wildlife...
Service, in order to determine the need for further ecological evaluation (e.g., cave-dwelling receptors). In these cases, Permittee shall contact the Secretary for additional guidance before proceeding.

The worksheet consists of three major parts: Part 1, identification of the affected property and background information, Part 2, the actual exclusion criteria and supportive information, and Part 3, a qualitative summary statement and certification of the information submitted. Answers to the worksheet should reflect existing conditions and should not consider future corrective measures at the affected property. Completion of the worksheet should lead to a logical conclusion as to whether further detailed ecological evaluation is warranted.

**Part 1: Affected Property Identification and Background Information**

1) Provide a description of the specific area of the corrective action and the nature of the release. Include estimated acreage of the affected property and the Facility property, and a description of the type of Facility and/or operation associated with the affected property. Also describe the location of the affected property with respect to the Site’s property boundaries and public roadways.

   Attach available USGS topographic maps and/or aerial or other affected property photographs to this form to depict the affected property and surrounding area.

   _____ Topo map     _____ Aerial photo     _____ Other _______________ (specify)

2) Identify the environmental media known or suspected to contain contaminants of concern (COCs) at the present time. Check all that apply:

   **Known/Suspected Impacted Media**
   - [ ] Soil < 5 ft below ground surface
     - [ ] Yes [ ] No
   - [ ] Soil > 5 ft below ground surface
     - [ ] Yes [ ] No
   - [ ] Groundwater
     - [ ] Yes [ ] No
   - [ ] Surface Water/Sediment
     - [ ] Yes [ ] No

   Explain (previously collected information may be referenced):

   ________________________________________________________
   ________________________________________________________
   ________________________________________________________
   ________________________________________________________
3) Provide the information below for the nearest surface water body which has become or has the potential to become impacted from migrating COCs via surface water runoff, air deposition, groundwater seepage, etc.

Exclude: wastewater treatment facilities and stormwater conveyances/impoundments authorized by permit.

Also exclude: conveyances, decorative ponds, and those portions of the process facilities which are:

a. Not in contact with surface waters of the State or other surface waters which are ultimately in contact with surface waters of the State; and,

b. Not consistently or routinely utilized as valuable habitat for natural communities including birds, mammals, reptiles, etc.

The nearest surface water body is ____________ feet/miles from the affected property.
The surface water body is named ________________________________.
The surface water body is best described as a:

_____ Freshwater stream:  _____ perennial (has water year-round)
   _____ intermittent (dries up completely ≥ one week/year)
   _____ intermittent with perennial pools

_____ Freshwater swamp/marsh/wetland
_____ Saltwater or brackish swamp/marsh/wetland
_____ Reservoir, lake or pond; approximate surface acres ________________________
_____ Drainage ditch
_____ Tidal stream
_____ Other (specify) _____________________________________________________

Is the water body listed as a State classified segment?
_____ Yes  Segment #: ______________ Use Classification: _______________________
_____ No

If the water body is not a State classified segment, identify the first downstream classified segment.
Name: _________________________________________________________________
Segment #: _____________________________________________________________
Use classification: _____________________________________________________

As necessary, provide further description of surface waters in the vicinity of the affected property:

_____________________________________________________________________
_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________
**Part 2: Exclusion Criteria and Supporting Information**

**Subpart A. Surface Water/Sediment Exposure**

1) Regarding the affected property where corrective action is being contemplated, have COCs migrated and resulted in a release or imminent threat of release to either surface waters or to their associated sediments via surface water runoff, air deposition, groundwater seepage, or other means of transmission?

**Exclude:** wastewater treatment facilities and stormwater conveyances/impoundments authorized by permit.

**Also exclude:** conveyances, decorative ponds, and those portions of the process facilities which are:

- a. Not in contact with surface waters of the State or other surface waters which are ultimately in contact with surface waters of the State; and

- b. Not consistently or routinely utilized as valuable habitat for natural communities including birds, mammals, reptiles, and other living organisms.

_____ Yes _____ No

Explain: __________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________

If the answer is “Yes” to Subpart A above, the affected property does not meet the exclusion criteria. However, complete the remainder of Part 2 to determine if there is a complete and/or significant soil exposure pathway, and then complete Part 3, Qualitative Summary and Certification.

If the answer is “No” to Subpart A above, go directly to Subpart B.

**Subpart B. Affected Property Setting**

In answering “Yes” to the following question, it is understood that the affected property is not attractive to wildlife or livestock, including threatened or endangered species. That is, the affected property does not serve as valuable habitat, foraging area, or refuge for ecological communities. Further consultation with management agencies may be required.

1) Is the affected property wholly contained within contiguous land characterized by: pavement, buildings, landscaped area, functioning cap, roadways, equipment storage area, manufacturing or process area, or other surface cover or structure, or otherwise disturbed ground?

   _____ Yes _____ No
Explain: __________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

If the answer is “Yes” to Subpart B above, the affected property meets the exclusion criteria, assuming the answer to Subpart A was “No.” Then, skip Subparts C and D and complete Part 3, Qualitative Summary and Certification.

If the answer is “No” to Subpart B above, go directly to Subpart C.

Subpart C. Soil Exposure

1) Are COCs which are in the soil of the affected property solely below the first 5 feet beneath ground surface, or does the affected property have a physical barrier present to prevent exposure to receptors to COCs in the surface soil?
   _____ Yes _____ No

Explain: __________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

If the answer is “Yes” to Subpart C above, the affected property meets the exclusion criteria, assuming the answer to Subpart A was “No”. Then, skip Subpart D and complete Part 3, Qualitative Summary and Certification.

If the answer is “No” to Subpart C above, go directly to Subpart D.

Subpart D. DeMinimus Land Area

In answering “Yes” to the question below, it is understood that all of the follow conditions apply:

- Affected property is not known to serve as habitat, foraging area, or refuge to threatened/endangered or otherwise protected species. (Note: Will likely require consultation with wildlife management agencies).
- Similar but unimpacted habitat exists within a half-mile radius.
- Affected property not known to be located within one-quarter mile of sensitive environmental areas, such as rookeries, wildlife management areas, preserves. (Note: Will likely require consultation with wildlife management agencies).
- No reason to suspect COCs associated with the affected property will migrate such that the affected property will become larger than one acre.

Using human health protective concentration levels as a basis to determine the extent of the COCs, does the affected property consist of one acre or less and does it meet all the conditions described above?
_____ Yes _____ No

Explain how the conditions are/are not met:
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

If the answer is “Yes” to Subpart D, then no further ecological evaluation is needed at the affected property, assuming the answer to Subpart A was “No”. Then, complete Part 3, Qualitative Summary and Certification).

If the answer is “No” to Subpart D, proceed to an Ecological Risk Evaluation, that is, SLERA/BERA.

**Part 3. Qualitative Summary and Certification (Complete in all cases)**

Attach a brief statement (one page or less) summarizing the information provided in this form. This summary should include sufficient information to verify that the affected property meets or does not meet the exclusion criteria. The Permittee should make the initial decision regarding the need to conduct further ecological evaluation based on the results of this worksheet. However, the Secretary will make a final determination on the need for further detailed ecological assessment.

**Note: The Permittee has the continuing obligation to re-enter the SLERA/BERA process if changing circumstances result in the affected property not meeting the exclusion criteria requirements presented in this worksheet.**

Completed by: _________________________________________ (Typed Name)
___________________________________________________________________________ (Title)
___________________________________________________________________________ (Date)

I believe that the information submitted is true, accurate, and complete, to the best of my knowledge.
___________________________________________________________________________ (Typed Name of Person)
___________________________________________________________________________ (Title of Person)
___________________________________________________________________________ (Signature of Person)
___________________________________________________________________________ (Date Signed)
Definitions: The following definitions are applicable only to the Exclusion Worksheet; the Definitions in Attachment 1 also apply to the Exclusion Worksheet.

Affected property - entire area or all affected environmental media at the Site containing releases of contaminants of concern at concentrations equal to or greater than the assessment level applicable for the land use, either residential or non-residential, and groundwater classification, or other threshold level for each affected media.

Assessment level - critical protective concentration level for a contaminant of concern used for affected property assessments where the human health protective concentration level is established by State regulation, standards, or guidance.

Bedrock - solid rock, or, consolidated, coherent, and relatively hard naturally formed material that cannot normally be excavated by manual methods alone, that underlies gravel, soil, or other surficial material.

Contaminant of concern - any contaminant that has the potential to adversely affect ecological or human receptors due to its concentration, distribution, and mode of toxicity.

Community - assemblage of plant and animal populations occupying the same habitat in which the various species interact via spatial and trophic relationships, such as, a desert community or a pond community.

Complete exposure pathway - exposure pathway where a human or ecological receptor is exposed to a contaminant of concern via an exposure route, such as, incidental soil ingestion, inhalation of volatiles and particulates, consumption of prey, or other exposure routes.

De Minimus - description of an area of affected property comprised of one acre or less where the ecological risk is considered to be insignificant due to small extent of contamination, absence of protected species, availability of similar unimpacted habitat nearby, and lack of adjacent sensitive environmental areas.

Ecological protective concentration level - concentration of a contaminant of concern at the point of exposure within an exposure medium, such as, soil, sediment, groundwater, or surface water, which is determined to be protective for ecological receptors. These concentration levels are intended to be protective for more mobile or wide-ranging ecological receptors and, where appropriate, benthic invertebrate communities within waters of the State. These concentration levels are not intended to be directly protective of receptors with limited mobility or ranges, such as plants, soil invertebrates, and small rodents, particularly those residing within active areas of a Site, unless these receptors are threatened/endangered species or unless impacts to these receptors result in disruption of the ecosystem or other unacceptable consequences for the more mobile or wide-ranging receptors, for example, impacts to a grassland habitat eliminate rodents which causes a desirable owl population to leave the area.
Ecological risk assessment - process that evaluates the likelihood that adverse ecological effects may occur or are occurring as a result of exposure to one or more stressors; however, as used in this context, only chemical stressors, or COCs, are evaluated.

Environmental medium - material found in the natural environment such as soil, (including non-waste fill materials), groundwater, air, surface water, and sediment, or a mixture of such materials with liquids, sludges, gasses or solids, including hazardous waste which is inseparable by simple mechanical removal processes, and is made up of primarily natural material.

Exclusion criteria - those conditions at an affected property which preclude the need to establish a protective concentration level for an ecological exposure pathway because the exposure pathway between the contaminant of concern and the ecological receptors is not complete or is insignificant.

Exposure medium - environmental medium or biological tissue in which or by which exposure to contaminants of concern by human or ecological receptors occurs.

Functioning cap – low-permeability layer or other approved cover meeting its design specifications to minimize water infiltration and chemical of concern migration, and prevent ecological or human receptor exposure to contaminants of concern, where design requirements are routinely maintained.

Landscaped area - area of ornamental, introduced, commercially installed, or manicured vegetation, which is routinely maintained.

Physical barrier - any natural or manmade structure or system that prevents exposure or prevents physical migration of contaminants of concern to points of exposure.

Point of exposure - location within an environmental medium where a receptor will be assumed to have a reasonable potential to come into contact with contaminants of concern. The point of exposure may be a discrete point, plane, or an area within or beyond some location.

Protective concentration level - concentration of a contaminant of concern which can remain within the source medium and not result in levels which exceed the applicable human health risk based exposure limit considering cumulative risk and hazard index for both carcinogenic and non-carcinogenic effects respectively, or ecological protective concentration level at the point of exposure for that exposure pathway.

Sediment - non-suspended particulate material lying below surface waters such as bays, oceans, rivers, streams, lakes, ponds, or other similar surface water body, including intermittent streams. Dredged sediments which have been removed from surface water bodies and placed on land shall be considered soils.

Sensitive environmental areas - areas that provide unique and often protected habitat for wildlife species. These areas are typically used during critical life stages such as breeding, hatching, rearing of young, and overwintering. Examples include: critical habitat for threatened and endangered species, wilderness areas, parks and wildlife refuges.
Site means the Facility, in addition to all areas and media to which hazardous constituents, hazardous wastes, releases and/or any other contamination or pollution that originated at the Facility, have been released and/or have migrated.

Source medium - environmental medium containing contaminants of concern which must be removed, decontaminated and/or controlled in order to protect human health and the environment. The source medium may be the exposure medium for some exposure pathways.

Stressor - any physical, chemical, or biological entity that can induce an adverse response; however, as used in this context, only chemical entities apply.

Subsurface soil - for human health exposure pathways, this is the portion of soil zone between base of surface soil and top of groundwater-bearing unit(s). For ecological exposure pathways, this is the portion of soil zone between 0.5 feet and 5 feet in depth.

Surface cover - layer of artificially-placed utility material, such as gravel.

Surface soil - for human health exposure pathways, this is the soil zone extending from ground surface to 15 feet in depth for residential land use, and from ground surface to 5 feet in depth for non-residential land use; or to the top of the uppermost groundwater-bearing unit or bedrock, whichever is less in depth. For ecological exposure pathways, this is the soil zone extending from ground surface to 0.5 feet in depth.

Surface water - any water meeting the definition of surface water in Kansas.
ECOLOGICAL ASSESSMENT CHECKLIST

The evaluation associated with the checklist is intended to be a screening-level survey of the developed and undeveloped ecological portions of the Site. Answers to the checklist should reflect existing conditions and should not consider future remedial actions at the Site.

In general, the checklist is designed for applicability to all sites; however, there may be unusual circumstances which require professional judgment or technical assistance in order to determine the need for further detailed ecological evaluation. Sources and general information available for the identification of ecological receptors and habitats may include: the U.S. Fish and Wildlife Service, Kansas Department of Wildlife, Parks, and Tourism, United States Geological Service (USGS), Kansas Geological Survey, National Wetland Inventory Maps, National Audubon Society, Kansas Biological Survey, national and local wildlife clubs, National and State Heritage Programs, State and National Parks System, and tribal organizations.

Section 1. Site Description

1) Facility Name: ___________________________________________________________

Location: ___________________________________________________________________

County: _______________________ City: _______________________ State: __________

Type of Facility: ___________________________________________________________________

2) Latitude: _______________________ Longitude: _______________________

3) What is the approximate area of the Site? ______________________________

4) Is this the first Site visit? Yes _____ No _____. If “No”, attach trip report of previous Site visit(s), if available. Date(s) of previous Site visit(s):

________________________________________________________________________

5) Please attach to the checklist USGS topographic map(s) of the Site, if available.

6) Are aerial or other Site photographs available? Yes _____ No _____. If “Yes”, please attach any available photo(s) to the Site map at the conclusion of this section.
7) The land use on the Site is: The area surrounding the Site is:

_____ % Urban
_____ % Rural
_____ % Residential
_____ % Industrial __ light __ heavy
____% Agriculture
(Crops: ______________________)   (Crops: ______________________)
_____ % Residential
_____ % Industrial __ light __ heavy
____% Agriculture
(Crops: ______________________)   (Crops: ______________________)

_____ % Recreational
(Describe; note if it is a park, etc.)

_____ % Recreational
(Describe; note if it is a park, etc.)

_____ % Undisturbed
_____ % Other

_____ % Undisturbed
_____ % Other

8) Has any movement of soil taken place at the Site? Yes ___ No ___. If “Yes”, please identify the most likely cause of this disturbance:

_____ Agricultural Use  _____ Heavy Equipment  _____ Mining
_____ Natural Events   _____ Erosion   _____ Other

Please describe:

9) Do any potentially sensitive environmental areas exist adjacent to or in proximity to the Site, such as, Federal and State parks, National and State Monuments, wetlands, prairie potholes? Remember, flood plains and wetlands are not always obvious; do not answer “No” without confirming information from a reliable source.

________________________________________________________________________

10) What type of Facility is located at the Site?

_____ Chemical _____ Manufacturing _____ Mixing _____ Waste Disposal

_____ Other (specify) _____________________________________________________

11) What are the suspected contaminants of concern at the Site? If known, what are their maximum concentration levels? _____________________________________________  

________________________________________________________________________

________________________________________________________________________

12) Check any potential routes of off-Site migration of contaminants observed at the Site:

_____ Swales   _____ Depressions    _____ Drainage Ditches
_____ Runoff   _____ Windblown Particulate  _____ Vehicular Traffic

_____ Other (specify) _________________________________________________

13) If known, what is the approximate depth to the water table? ____________________
14) Is the direction of surface runoff apparent from Site observations? Yes ___ No ___. If “Yes”, to which of the following does the surface runoff discharge? Mark all that apply. _____ Surface water _____ Groundwater _____ Sewer _____ Collection impoundment

15) Is there a navigable waterbody or tributary to a navigable waterbody? Yes ___ No ___.

16) Is there a waterbody anywhere on or in the vicinity of the Site? If “Yes”, also complete Section 3: Aquatic Habitat Checklist - Non-Flowing Systems and/or Section 4: Aquatic Habitat Checklist - Flowing Systems. Yes ____ approximate distance ________________ No ____

17) Is there evidence of flooding? Yes _____ No ____. Wetlands and flood plains are not always obvious; do not answer “No” without confirming information with a reliable source. If “Yes”, complete Section 5: Wetland Habitat Checklist.

18) If a field guide was used to aid any of the identifications, please provide all references. Also, estimate the time spent identifying the fauna. (Use a blank sheet if additional space is needed for text).

19) Are any threatened and/or endangered species, plant or animal, known to inhabit the area of the Site? Yes _____ No ____. If “Yes”, you are required to verify this information with the U.S. Fish and Wildlife Service. If species identities are known, please list them in the text.

20) Are any species in need of conservation, either plant or animal, known to inhabit the area of the Site? Yes _____ No ____. If “Yes”, you are required to verify this information with the Kansas Department of Wildlife and Parks. If species identity is known, please list them in the text.
21) Record weather conditions at the time this checklist was prepared:

Date: _________________

Temperature (°C /°F) _________ Normal daily high temperature

Wind (direction/speed) _________ Precipitation (rain, snow, other)

Cloud cover

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Completed by _______________________________ Affiliation __________________________
Additional Preparers __________________________________________________________
Site Manager __________________________________________________________________
Date _______________________

Section 2. Terrestrial Habitat Checklist

Section 2A. Wooded

1) Are there any wooded areas on the Site? Yes _____ No _____. If “No”, go to Section IIB: Shrub/Scrub.

2) What percentage of the area of the Site is wooded? (_____ % _____ acres) Indicate the wooded area on the Site map which is attached to a copy of this checklist. Please identify what information was used to determine the wooded area of the Site. ________________

3) What is the dominant type of vegetation in the wooded area?
   (Circle one: Evergreen/Deciduous/Mixed) Provide a photograph(s) if available.
   Dominant plant, if known: ________________

4) What is the predominant size of the trees at the Site? Use diameter at breast height.
   _____ 0-6 inches   _____ 6-12 inches   _____ > 12 inches

5) Specify type of understory present, if known. Provide a photograph(s), if available.

Section 2B. Shrub/Scrub

1) Is shrub/scrub vegetation present at the Site? Yes _____ No _____. If “No”, go to Section IIC: Open Field.
2) What percentage of the Site is covered by shrub/scrub vegetation? (_____ % _____ acres)  
Indicate the acres of shrub/scrub on the Site map. Please identify what information was  
used to determine this area.  

3) What is the dominant type of shrub/scrub vegetation, if known? Provide a photograph(s) if  
available.  

4) What is the approximate average height of the shrub/scrub vegetation?  
_____ 0-2 feet  _____ 2-5 feet  _____ > 5 feet  

5) Based on Site observations, how dense is the shrub/scrub vegetation?  
_____ Dense  _____ Patchy  _____ Sparse  

Section 2C. Open Field  

1) Are there open, field areas, for example, bare or barren, present at the Site? Yes _____ No  
_____ . If “Yes”, please indicate the type below:  
_____ Prairie/plains  _____ Savannah  _____ Old field  _____ Other (specify) ________  

2) What percentage of the Site is open field? (_____ % _____ acres) Indicate the open field  
areas on the Site map.  

3) What is/are the dominant plant/plants? Provide a photograph(s) if available. ________  

4) What is the approximate average height of the dominant plant? _____________________  

5) Describe the vegetation cover: _____ Dense _____ Sparse _____ Patchy
Section 2D. Miscellaneous

1) Are other types of terrestrial habitats present at the Site, other than woods, shrub/scrub, and open field? Yes _____ No _____. If “Yes”, identify and describe below.

________________________________________________________________________

2) Describe the terrestrial miscellaneous habitat(s) and identify these areas on the Site map.

________________________________________________________________________

3) What observations, if any, were made at the Site regarding the presence and/or absence of insects, fish, birds, mammals, or other living organisms?

________________________________________________________________________

4) Review the questions in Section I to determine if any additional habitat checklists should be completed for this Site.

________________________________________________________________________

Section 3. Aquatic Habitat Checklist – Non-Flowing Systems

Note: Aquatic systems are often associated with wetland habitats. Please refer to Section 5, Wetland Habitat Checklist.

1) What type of open-water, non-flowing system is present at the Site?
   _____ Natural (pond or lake)
   _____ Artificially created (lagoon, reservoir, canal, impoundment)

2) If known, what is the name(s) of the waterbody(ies) on or adjacent to the Site?

________________________________________________________________________

3) If a waterbody is present, what are its known uses (for example, recreation, navigation, other.)?

________________________________________________________________________

4) What is the approximate size of the waterbody(ies)? _______________ acre(s)

5) Is any aquatic vegetation present? Yes _____ No _____. If “Yes”, please identify the type of vegetation present, if known.
6) If known, what is the depth of the water? ____________________________________________

7) What is the general composition of the substrate? Check all that apply.
   - _____ Bedrock
   - _____ Boulder (>10 inch)
   - _____ Cobble (2.5-10 inch)
   - _____ Gravel (0.1-2.5 inch)
   - _____ Other (specify)
   - _____ Sand
   - _____ Silt (fine)
   - _____ Marl (shells)
   - _____ Clay (slick)
   - _____ Muck (fine/black)
   - _____ Debris
   - _____ Detritus
   - _____ Cobble (2.5-10 inch)
   - _____ Marl (shells)
   - _____ Detritus
   - _____ Gravel (0.1-2.5 inch)
   - _____ Clay (slick)
   - _____ Concrete

8) What is the source of water in the waterbody?
   - _____ River/Stream/Creek
   - _____ Industrial discharge
   - _____ Groundwater
   - _____ Surface runoff
   - _____ Other (specify) __________________________________________________________

9) Is there a discharge from the Site to the waterbody? Yes _____ No ____. If “Yes”, please describe this discharge and its path.
   ____________________________________________________________

10) Is there a discharge from the waterbody? Yes _____ No ____. If “Yes”, and the information is available, identify from the list below the environment into which the waterbody discharges.
    - _____ River/Stream/Creek
    - _____ Wetland
    - _____ Site
    - _____ Distance _________
    - _____ Groundwater
    - _____ Impoundment
    - _____ Facility

11) Identify any field measurements and observations of water quality that were made. For those parameters for which data were collected provide the measurement and the units of measure below:
    - _____ Area
    - _____ Depth (average)
    - _____ pH
    - _____ Dissolved Oxygen
    - _____ Salinity
    - _____ Turbidity (clear, slightly turbid, turbid, opaque) (Secchi disk depth _____)
    - _____ Other (specify)

12) Describe observed color and area of coloration.
    __________________________________________________________

13) Mark the open-water, non-flowing system on the Site map attached to this checklist.

14) What observations, if any were made at the waterbody regarding the presence and/or absence of benthic macroinvertebrates, fish, birds, mammals, or other organisms?
Section 4. Aquatic Habitat Checklist – Flowing Systems
Note: Aquatic systems are often associated with wetland habitats. Please refer to Section 5, Wetland Habitat Checklist.

1) What type(s) of flowing water system(s) is (are) present at the Site?
   - River
   - Stream
   - Creek
   - Dry wash
   - Arroyo
   - Brook
   - Artificially Created (ditch, etc.)
   - Intermittent Stream
   - Channeling
   - Other (specify) _____________________________

2) If known, what is the name of the waterbody? __________________________________

3) For natural systems, are there any indicators of physical alteration, such as, channeling, debris, or other alterations? Yes _____ No _____. If “Yes”, please describe indicators that were observed.
   __________________________________

4) What is the general composition of the substrate? Check all that apply.
   - Bedrock
   - Boulder (>10 inch)
   - Cobble (2.5-10 inch)
   - Gravel (0.1-2.5 inch)
   - Other (specify)
   - Sand
   - Silt (fine)
   - Marl (shells)
   - Clay (slick)
   - Other (specify)
   - Muck (fine/black)
   - Debris
   - Detritus
   - Concrete

5) What is the condition of the bank: include, height, slope, extent of vegetative cover, and other information?
   __________________________________

6) Is the system influenced by tides? Yes _____ No _____. What information was used to make this determination?
   __________________________________

7) Is the flow intermittent? Yes _____ No _____. If “Yes”, please note the information that was used in making this determination.
   __________________________________

8) Is there a discharge from the Site to the waterbody? Yes _____ No _____. If “Yes”, please describe the discharge and its path.
   __________________________________
9) Is there a discharge from the waterbody? Yes _____ No _____. If “Yes”, and the information is available, please identify what the waterbody discharges to and whether the discharge is on the Facility or on the Site.

10) Identify any field measurements and observations of water quality that were made. For those parameters for which data were collected, provide the measurement and the units of measure in the appropriate space below:

- Width (feet)
- Depth (feet)
- Velocity (specify units)
- Temperature and depth of the water at which the temperature was taken
- pH
- Dissolved Oxygen
- Salinity
- Turbidity (clear, slightly turbid, turbid, opaque) (Secchi disk depth _____)
- Other (specify) __________________________

11) Describe observed color and area of coloration.

12) Is any aquatic vegetation present? Yes _____ No _____. If “Yes”, please identify the type of vegetation present, if known.

- Emergent
- Submergent
- Floating

13) Mark the flowing water system on the attached Site map.

14) What observations were made at the waterbody regarding the presence and/or absence of benthic macroinvertebrates, fish, birds, mammals, or other organisms?

Section 5. Wetland Habitat Checklist

1) Based on observations and/or available information, are designated or known wetlands definitively present at the Site? Yes _____ No _____. Please note the sources of observations and information used (e.g., USGS Topographic maps, National Wetland Inventory, Federal or State Agency, etc.) to make this determination.
2) Based on the location of the Site (for example, along a waterbody, in a floodplain) and Site conditions (such as, standing water; dark, wet soils; mud cracks; debris line; water marks), are wetland habitats suspected? Yes _____ No _____. If “Yes”, proceed with the remainder of the wetland habitat identification checklist.

3) What type(s) of vegetation are present in the wetland?
   _____ Submergent   _____ Emergent
   _____ Shrub/Scrub   _____ Wooded
   _____ Other (specify) _____________________________

4) Provide a general description of the vegetation present in and around the wetland, including height, color, and other descriptors. Provide a photograph of the known or suspected wetlands, if available.

5) Is standing water present? Yes ____ No ____. If “Yes”, is this water: Fresh _____ Brackish _____. What is the approximate area of the water (sq. ft.)? _________________
   Please complete questions 4, 11, 12 in Checklist 3 - Aquatic Habitat -- Non-Flowing Systems.

6) Is there evidence of flooding at the Site? What observations were noted?
   _____ Buttressing   _____ Water marks   _____ Mud cracks
   _____ Debris line   _____ Other (describe) _____________________________

7) If known, what is the source of water in the wetland?
   _____ Stream/River/Creek/Lake/Pond   _____ Groundwater
   _____ Flooding   _____ Surface Runoff

8) Is there a discharge from the Site to a known or suspected wetland? Yes _____ No _____. If “Yes”, please describe.

9) Is there a discharge from the wetland? Yes _____ No _____. If “Yes”, to what waterbody is the discharge released?
   _____ Surface Stream/River   _____ Groundwater   _____ Lake/pond   _____ Marine

10) If a soil sample was collected, describe the appearance of the soil in the wetland area. Circle or write in the best response.
    Color (blue/gray, brown, black, mottled) ____________________________________________
    Water content (dry, wet, saturated/unsaturated) ____________________________________

11) Mark the observed wetland area(s) on the attached Site map.
ATTACHMENT 10

INTERIM MEASURES
SCOPE OF WORK
PURPOSE

Permittee shall design and implement Interim Measures, where required and/or approved by the Secretary, consistent with Section III.J of the Permit. This Kansas Department of Health and Environment (KDHE) scope of work (SOW) establishes the general framework for implementation of interim measure activities at a Site. The primary purpose of an interim measure is to achieve the goal of stabilization, which is to control or abate immediate threats to human health and the environment, and to prevent or minimize the spread of contamination while long-term corrective measures are being evaluated. When a Release or potential Release from regulated units, solid waste management units (SWMUs), areas of concern (AOCs), and other source or release areas at the Site, poses a threat to human health or the environment, the Secretary may require interim measure implementation. Alternatively, subject to the Secretary’s approval, the Permittee may propose interim measure implementation as long as the interim measure(s) is/are consistent with and integrated into any long-term corrective measures at the Site.

Interim measures may be warranted in either an emergency or non-emergency situation. In the case of an emergency, the Permittee may initiate interim measures with concurrent notification of the Secretary, no later than twenty-four (24) hours of becoming aware of the need for interim measure implementation to mitigate or stabilize an emergency situation.

DEFINITION AND APPLICABILITY

In general, an interim measure is defined as a set of short-term actions or activities taken to quickly prevent, mitigate, or remedy unacceptable risk(s) posed to human health and the environment by an actual or potential Release of a hazardous substance, pollutant, or other contaminant. An interim measure is generally a less complex type of remedial response, requiring minimal design effort, and somewhat presumptive in nature, thereby negating the need for rigorous treatability study or pilot testing. An interim measure may be warranted in either an emergency which requires an immediate response, or in a non-emergency situation, to manage the source(s) of contamination, control the exposure pathway(s), and/or control the hazard(s) to human and environmental receptors. An interim measure may be conducted without extensive investigation at any time during the investigation or corrective measure alternatives evaluation process with the Secretary’s approval. Minimally, implementation of an interim measure must be conducted in a manner consistent with the concept of best management practices (BMPs) wherein overall improvement in Site conditions is achieved. Depending upon Site-specific circumstances or conditions, one or more interim measures may be determined necessary.

Factors to be considered by the Permittee in assessing the need for interim measure implementation include the following:

- Actual or imminent threat of exposure to hazardous substances, pollutants, or contaminants by nearby human populations, ecological receptors or ecosystem food web;
• Actual or imminent threat of contamination to drinking water supplies or sensitive ecosystems;
• Hazardous substances, constituents, wastes, or other contaminants in drums, barrels, tanks, piles, or other bulk storage containers that may pose an imminent threat of release;
• High levels of hazardous substances, constituents, pollutants, or contaminants in predominantly surface soils that may readily migrate;
• Weather conditions that may cause hazardous substances, constituents, pollutants, or contaminants to migrate or be released;
• Threat of fire or explosion; and,
• Other situations or factors that may pose imminent threats to public health or welfare or the environment.

In order to assess the relative magnitude of an actual or imminent threat to human health and the environment and the need for possible interim measure implementation, the Secretary will consider all applicable federal and state regulatory standards or threshold screening levels for the media of interest including, but not limited to, the following:

• U.S. Environmental Protection Agency (EPA) maximum contaminant levels (MCLs);
• EPA numeric removal management levels (RMLs) for contaminated drinking water sites listed at https://www.epa.gov/risk/regional-removal-management-levels-rmls-users-guide;
• Tier 2 screening levels as provided in the KDHE Risk-Based Standards for Kansas RSK Manual, –5th Version–October 2010 (RSK Manual), and any subsequent updates/revisions; and,
• Kansas surface water quality standards.

If gross measurable or visible contamination to the environment is evident (e.g., catastrophic release of separate phase liquid waste), this may serve as a threshold criterion for interim measure implementation as required by the Secretary.

The intent in allowing interim measure implementation is not to circumvent the more linear RCRA corrective action process: investigation, alternatives evaluation, and corrective measures design/ implementation. However, if Site characteristics suggest circumstances are amenable to interim measures designed to control or abate imminent threats, or prevent or minimize the further spread of contamination, the Secretary may consider the appropriateness of interim measure implementation as an element of the final corrective measures.

GOALS/OBJECTIVES AND TIMING

The ultimate goal of an interim measure is to control or abate threats to human health and/or the environment from releases of or exposures to hazardous substances, constituents, pollutants, or other contaminants, and to prevent or minimize the further spread of contamination while long-term corrective measures are evaluated. An interim measure is intended to provide a partial, albeit more immediate, solution while being consistent with the final Site corrective measures. Implementation of an interim measure often results in significant overall reduction in cost and scope of the final Site corrective measure(s). In some instances, the interim measure may prove to be all that is necessary to achieve Site-wide corrective action goals should all significant threats
to human health and the environment be mitigated or eliminated. In terms of timing, an interim measure is generally conducted before the investigation and evaluation of corrective measure alternatives are completed. However, for an active facility, this timing preference is largely irrelevant in the case of a new or newly-discovered release warranting immediate action.

**PROCESS ELEMENTS AND EXAMPLES**

Again, an interim measure is intended to be a generally less complex type of remedial response requiring only focused characterization by the Permittee, as necessary or as required by the Secretary; simplified target receptor identification and exposure pathway analysis; focused interim measure identification/selection; and, minimal design effort with emphasis on “off-the-shelf” remedial system components. Since somewhat contrary to the overall purpose of interim measure implementation, the scope and duration of treatability study or pilot-testing activities is expected to be limited. A typical interim measure may include, but is not limited to, one or more of the following:

- Removal of abandoned drums or other waste containers;
- Excavation of contaminated soil “hot spots”;
- Hydraulic control of groundwater contaminant plume;
- Removal of non-aqueous phase liquid (NAPL) from groundwater;
- Provision of alternate water supply or point-of-use treatment;
- Installation of vapor intrusion mitigation systems;
- Construction of perimeter fencing to limit uncontrolled Site access;
- Construction of surface or subsurface barriers such as dikes, berms, French drains, or interceptor trenches; and/or,
- Receptor point monitoring, for example, periodic residential well or public water supply sampling.

**PLAN/DESIGN AND REPORTING REQUIREMENTS**

Whether conducted in an emergency or non-emergency situation, the decision process leading to the selection and implementation of an interim measure, and the resultant action itself, must be appropriately documented by the Permittee. As part of the initial notification to the Secretary, the Permittee must provide a brief proposal consisting of a description, implementation schedule and justification for the emergency interim measure proposed to be taken. Upon completion of the emergency interim measure, the Permittee will be required to provide a final summary report of the emergency action taken while noting any deviations from the original proposal. The Secretary may request the Permittee to perform additional investigative or mitigative measures, and/or submit a more formal work plan or report.

For all non-emergency interim measures, the Permittee must submit an Interim Measure Work Plan/Design to the Secretary for review and approval. This Work Plan/Design may vary in detail depending on program requirements. The Work Plan/Design shall include, at a minimum, a summary of available Site information and available investigation results; a detailed description of the proposed interim measure; justification and benefit of interim measure implementation including interim corrective action objectives; depending on the complexity of the interim
measure, complete design specifications and drawing/schematics, including any relevant figures and/or Site system engineering layouts, such as, process flow diagram, piping and instrumentation diagram, or other items required by the Secretary, and engineering design basis; cost estimate; and, a detailed working schedule presented graphically in the form of a milestone chart (e.g., Gantt chart) to show the duration and interdependencies of the various activities. Depending on the complexity of the proposed interim measure and specific program requirements, Permittee may need to address operation and maintenance (O&M) as well as performance monitoring needs in the Interim Measure Work Plan/Design. Attachment A provides an example outline of an Interim Measure Work Plan/Design package. Attachment A is not intended to be prescriptive in nature, rather a model from which to work. The exact elements and content of any Interim Measure Work Plan/Design package will be determined by the Secretary, depending on the overall complexity of the anticipated interim measure, while being consistent with specific program requirements and conditions of the Permit.

Once the non-emergency interim measure is determined by the Secretary to be complete (e.g., alternate water supply provided) or fully operational and functional (e.g., soil vapor extraction system is installed in accordance with the Secretary-approved design and achieves performance expectations), the Permittee must submit an Interim Measure Report documenting the nature of the threat, the action(s) taken and the success in mitigating the threat. The Secretary will determine the appropriate form or content of the Interim Measure Report. If the interim measure continues as an on-going effort (e.g., subsurface interceptor trench operation), then the Permittee must submit a monitoring/progress report at a frequency specified in the Secretary-approved Interim Measure Work Plan/Design.

PUBLIC INVOLVEMENT

Given that interim measure implementation will normally precede the final corrective measures and any associated decision documents such as the Corrective Measures Decision, the Secretary may prepare a Fact Sheet describing the interim measures and distribute it to interested parties in the immediate Site vicinity. This is not for the intent of soliciting public comment on the proposed interim measures, but rather to keep local government officials and area residents informed as to Site activities. Depending on the Site-related complexities or sensitivities, conduct of a public availability session may be warranted, as determined necessary by the Secretary. In such instance, the Secretary may require Permittee to prepare supporting documents or presentation materials.
Attachment A
Interim Measure Work Plan/Design Package
Example Outline

I. Site Background
II. Previous Investigations and Summary of Results
III. Description of Proposed Interim Measure
IV. Interim Measure Corrective Action Objectives
V. Interim Measure Design
   a. Design Basis
   b. Design Specifications
   c. Drawings/Schematics
   d. Cost Estimate
   e. Detailed Working Schedule (to be periodically updated)

APPENDICES
Appendix A – Data Acquisition Plan (optional)
Appendix B – Quality Assurance Project Plan (or reference existing document)
Appendix C – Treatability Study Testing Plan (optional)
Appendix D – Health and Safety Plan (or reference existing document)
Appendix E – Operations and Maintenance Plan
Appendix F – Community Relations Plan
ATTACHMENT 11

CORRECTIVE MEASURES STUDY
SCOPE OF WORK
INTRODUCTION

Conducted by the Permittee in accordance with Section III.K. of the Permit and this Attachment, the Corrective Measures Study (CMS) provides an objective and standardized process for evaluating, comparing, and contrasting potential corrective measure alternatives. The primary objectives of the CMS are to:

1) Evaluate the feasibility, effectiveness, and cost of at least two (2) potential corrective action alternatives based on the findings of the RCRA Facility Investigation (RFI), and to compare and contrast those alternatives to each other and the "no action" alternative;
2) Recommend and justify a specific corrective measure(s) for the Site; and,
3) Determine the benefits and consequences of the recommended corrective measure(s).

The individual corrective measures alternatives selected by the Permittee for evaluation as part of the CMS process must be plausible and not skew or bias the evaluation process. The alternatives evaluated by the Permittee must be capable of achieving cleanup objectives while, to the maximum extent practicable, contemplating permanent solutions and treatment technologies. Depending upon project needs, the alternatives to be evaluated by the Permittee may be broken out on a media-specific basis, or on a geographic basis. For example, if contaminant impacts are to be addressed in groundwater and soil, a minimum of two corrective measures alternatives, in addition to the no action alternative, for each media of concern shall be evaluated by the Permittee. If interim measures have been implemented or other actions taken in the past at a Site, the Permittee is not required to subject these actions/measures to a comparative analysis at the time of CMS development; however, they must be described/justified in detail within the CMS Report itself with an estimate of associated implementation costs, to the extent available. The overall intent is that any interim measures taken must not be inconsistent with the final selected corrective measure(s).

CMS EVALUATION PROCESS

This guidance and scope of work (SOW) attachment outlines the primary activities to be completed by the Permittee as part of the CMS process to satisfy the objectives stated above. At the Secretary’s discretion, this general process may be streamlined and focused to best serve project or Site needs. In general, the evaluation of corrective measure alternatives must include:

- Description of the contaminants of concern (COCs) and media affected;
- Identification of human and ecological targets and an evaluation of all direct and indirect exposure pathways;
- Description of the Site-specific corrective action objectives (CAOs);
- Detailed individual analysis of each alternative;
- Tabular summary of regulatory requirements and relevant guidance for each alternative; and,
• Comparative analysis of each of the proposed corrective action alternatives.

The Permittee’s detailed evaluation of potential corrective measure alternatives provides the basis for the Permittee’s recommending and supporting a specific corrective measure or group of corrective measures for the Site. Notably, any corrective measure selected by the Permittee for a Site is required to satisfy the four identified threshold criteria identified in Figure 1. The seven balancing criteria represent the primary criteria upon which the Permittee’s CMS evaluation/comparative analysis shall be based.

**Figure 1: Criteria for evaluation of corrective measure alternatives**

Face-to-face meetings or teleconferences between the Secretary and the Permittee are strongly encouraged to facilitate consensus on approach and overall streamlining of the corrective action process. Such meetings may eliminate the need for the Permittee to submit a CMS Work Plan. However, if the Secretary deems that additional data gathering is warranted following completion of the RFI in order to evaluate potential corrective measure alternatives, the Secretary may require the Permittee to submit a CMS Work Plan for review and approval.

The exact content requirements of any CMS Work Plan should be developed by the Permittee in consultation with the Secretary. The Permittee must include in its CMS Work Plan a detailed CMS working schedule, presented graphically in the form of a milestone chart (e.g., Gantt chart) to show the duration and interdependencies of the various activities. In addition, any analytical data collected by the Permittee must be of appropriate data quality and quantity to facilitate comparison to applicable threshold levels as established in KDHE’s Risk-Based Standards for Kansas RSK Manual (RSK Manual), or as otherwise approved or required by the Secretary, or to support the evaluation of potential corrective measure alternatives.
In some cases, the Permittee may propose or the Secretary may require implementation of bench-or pilot-scale treatability study testing to demonstrate the efficacy of a particular technology where there might be some uncertainty in the viability or suitability to Site conditions. Treatability studies are conducted to provide sufficient data to allow treatment alternatives to be fully developed and evaluated during the CMS process and to support the subsequent remedial design of the corrective measure(s) alternative ultimately selected by the Secretary. Treatability studies also serve to reduce cost and performance uncertainties to acceptable levels for treatment alternatives under consideration to permit a more reliable corrective measure(s) selection process. The Permittee must complete all treatability studies/modeling/additional data acquisition activities in a manner consistent with available KDHE policy and guidance. If there is a need or requirement to conduct such activities, the Permittee must first submit a treatability study work plan for the Secretary’s review and approval. At the Secretary’s discretion, reporting associated with treatability study/modeling/additional data gathering activities may be reported separately or incorporated into the CMS Report.

**CMS REPORTING**

Consistent with Section III.K.3. of the Permit, the Permittee must submit a CMS Report to the Secretary for review and approval, in a timeframe consistent with the implementation schedule in the approved CMS Work Plan, or as otherwise directed by the Secretary. The CMS Report must include all information and data collected during the investigation and describe in detail the work performed to accomplish the objectives as set forth within this attachment. The CMS Report shall include: 1) a brief summary of the findings of previous environmental investigations, including the findings of a risk assessment, if performed; 2) a description of the Site-specific CAOs, including any media cleanup or risk-based standards for the protection of human health and the environment; 3) a detailed description of each corrective measure alternative evaluated, including the "no action" alternative; 4) a detailed discussion of each corrective measure alternative evaluated relative to the threshold and balancing criteria identified above; 5) a comparative analysis of one alternative versus the others in both narrative and tabular form; 6) a recommendation for corrective action at the Site which provides a clear basis for recommending and supporting a specific corrective measure or group of corrective measures for the Site; and, 7) any supporting background information or literature which was used to evaluate each corrective action alternative, which shall be included in an appendix.

All elements of the recommended corrective measure(s) as proposed in the CMS Report must be fully substantiated. Specifically, sufficient data must be available and presented in the CMS Report to support the recommended alternative consistent with available state and federal policy and guidance. The Secretary may also require identification of a contingent corrective measure(s) up front in the event the selected corrective measure(s) is not able to achieve CAOs, or if there is uncertainty as to the efficacy of that being proposed. Once the Secretary has reviewed and approved the CMS Report, a Fact Sheet will be prepared that identifies the Secretary’s preferred corrective measure(s) for the Site. The draft decision document will be made available for public comment before the Secretary issues a final corrective measures decision. At this juncture, the Permittee will be required to design and perform corrective measure activities under the Secretary’s oversight.
**STEP 1: Identification and Development of Corrective Measure Alternatives**

Based on RFI results, the Permittee shall identify, screen, and develop the alternatives for removal, containment, treatment and/or other remediation of the contamination based on established media cleanup objectives. In general, the media cleanup objectives, established in conjunction with the Secretary, shall be based upon available KDHE and EPA guidance, public health and environmental criteria, information gathered during the RFI, and generally include the following components:

- Cleanup levels which are media-specific concentrations that achieved before the final corrective measure(s) is considered complete;
- Point(s) of compliance representing where the media-specific cleanup levels are to be achieved; and,
- Corrective measure(s) construction timeframe and estimate of time needed to achieve media-specific cleanup levels.

Multiple technologies (e.g., treatment train) can be combined to constitute the overall corrective measure alternative being carried through the evaluation. Again, each of the alternatives being considered must be screened against the threshold criteria shown in Figure 1. If a given alternative does not meet all of the threshold criteria, then the alternative does not warrant further consideration by the Permittee.

**STEP 2: Detailed Evaluation of Corrective Measure Alternatives**

For those alternatives that satisfy the threshold criteria screening in Step 1, the Permittee must fully describe and evaluate each alternative and its individual components relative to the balancing criteria depicted in Figure 1.

**Long-Term Effectiveness**

The Permittee shall demonstrate the expected long-term effectiveness, reliability, and risk of failure of the alternatives in terms of:

- Effectiveness of the alternative under analogous Site conditions;
- Potential impact resulting from alternative failure, including failures from uncontrollable changes affecting the Site, such as: heavy precipitation events, off-site pumping well influences, and other relevant factors; and,
- Estimates of alternative projected useful life, including any component technologies.

**Reduction in Toxicity, Mobility, or Volume of Waste(s)**

In general, the Secretary’s preference is for corrective measures capable of eliminating or substantially reducing the potential for wastes in the contaminated media to cause future environmental releases or other risks to human health and/or the environment. For the sake of the CMS evaluation, the Permittee must estimate how much or to what extent the corrective measure alternatives will reduce the toxicity, mobility, or volume of waste. The assessment must
include a comparison of initial Site conditions to anticipated post-corrective measure(s) conditions.

**Short-Term Effectiveness**

Short-term effectiveness has particular bearing when the corrective measure activities will be occurring in densely populated areas, or where waste characteristics pose a high risk to workers/environment necessitating special protective measures during the implementation. Consequently, typical factors the Permittee must consider in the CMS evaluation include, but are not limited to: fire, explosion, exposure to hazardous substances and potential threats associated with treatment, excavation, transportation and disposal, or containment of the waste material.

**Implementability**

The Permittee shall fully describe the implementability of each alternative, including the relative ease of installation or construction within the context of time required to achieve an anticipated result (e.g., hydraulic containment achieved). The Permittee shall consider and include in the CMS Report the following specific information:

- Administrative activities, such as, permits, and off-Site approvals, needed to implement the alternative, and the length of time needed to accomplish these activities;
- Constructability, implementation time, and time for beneficial results;
- Availability of adequate off-Site treatment, storage capacity, disposal services, needed technical services and materials; and,
- Availability of prospective technologies for each corrective measure alternative.

**Community Acceptance**

The Permittee is responsible for involving and supporting community involvement activities as an ongoing part of the corrective action. The CMS Report shall include a discussion of any concerns raised by the community during previous corrective action activities, such as investigation and interim measures. In addition, the CMS Report shall discuss any aspects associated with an evaluated corrective measure alternative for which there is a potential for community concerns and objections.

**State Acceptance**

The Permittee shall include a discussion in the CMS Report of how the specific corrective measure(s) activities will be conducted in compliance with all applicable state regulations and regulations, including all permit requirements, and KDHE policy and guidance relevant to the proposed corrective measure(s) implementation.

**Cost**

The Permittee shall develop a cost estimate for each corrective measure alternative. Cost estimates shall include costs for engineering, Site preparation, construction, materials, labor,
sampling/analysis, waste management/disposal, permitting, health and safety measures, training, operation and maintenance, long-term monitoring, and other relevant costs.

**STEP 3: Corrective Measure(s) Recommendation**

The Permittee shall fully justify and recommend a corrective measure(s) for implementation with a detailed summary of how the measure(s) satisfy each of the threshold criteria and why the measure(s) appears most favorable based on the balancing criteria comparative analysis evaluation. This recommendation shall include summary tables presenting the alternatives in an easily understood manner and specifically highlighting tradeoffs among the balancing criteria factors for the alternatives considered/evaluated. The Secretary will then identify a proposed corrective measure(s) in the Fact Sheet. With consideration of public comment on the Fact Sheet, the Secretary will make a final selection of the corrective measure(s) to be implemented.
ATTACHMENT 12

CORRECTIVE MEASURES IMPLEMENTATION
SCOPE OF WORK
INTRODUCTION

The final Corrective Measure(s) Decision (CMD) issued by the Kansas Department of Health and Environment (KDHE) identifies the corrective measures that the Permittee will implement to address residual waste and contamination of environmental media and prevent or eliminate exposure to human and ecological receptors from Site-related contaminants of concern (COCs). The selected corrective measures sometimes referred to as the remedy are planned, designed, constructed, and implemented by the Permittee during Corrective Measures Implementation (CMI), consistent with Section III.M. of the Permit. All approved plans for implementation of the selected corrective measures shall be compiled by the Permittee, for the Secretary’s approval, into a comprehensive document referred to as the CMI Work Plan that is comprised of all design plans and specifications, IC plans, O&M plans, monitoring and performance evaluation plans, sampling and analysis plans, recordkeeping plans, QA/QC plans, and other descriptive Site summary information. Permittee’s development of the CMI Work Plan may occur over time with oversight provided by the Secretary and is generally divided into a planning and action phases. Face-to-face meetings or teleconferences between the Secretary and Permittee are strongly encouraged to facilitate achieving consensus on approach and overall streamlining of the CMI process.

CMI OBJECTIVES

Permittee’s primary objectives in the CMI planning phase are described as follows:

1) To provide a CMI Work Plan consisting of a preliminary design of the corrective measures implementation and a description of the tasks necessary to implement the corrective measures consistent with the CMD;
2) To obtain additional data, if necessary, to support the development of the detailed design plans and specifications;
3) To provide detailed intermediate, pre-final and final design plans and specifications including an Operations and Maintenance (O&M) Plan for the corrective measures system;
4) To provide a Contingency Plan, as required by the Secretary, that identifies alternative corrective measures to be implemented in the event of a significant failure of the corrective measures system;
5) To identify and obtain necessary easements and permits required for the implementation of the corrective measures; and,
6) To provide a Site Monitoring and Performance Evaluation Plan to monitor the effectiveness of the corrective measures.

The CMI Work Plan and associated design documents may vary in detail and delivery strategy (e.g., preliminary (10%), intermediate (30-50%), pre-final/final (90-100%)) depending on project-specific needs and the Secretary’s requirements. For example, in the case of complex design efforts, Permittee’s preliminary and/or intermediate design submittals may be appropriate in advance of the pre-final/final design stage. For a simple corrective measure, it may only be...
necessary for Permittee to submit a draft and final CMI Work Plan where no up-front design is explicitly warranted or required; similarly, if the Secretary determines preliminary or interim measures have achieved corrective action objectives, the Permittee provides a CMI Report that documents the implementation/installation of the corrective measures.

If approved by the Secretary, the Preliminary CMI Work Plan design submittal will be considered the Final CMI Work Plan in cases where it ultimately meets pre-final/final design requirements. At the discretion of the Secretary, Permittee may submit the O&M Plan and Site Monitoring and Performance Evaluation Plan in the CMI Report after corrective measures implementation/start-up instead of submitting with the CMI Work Plan and associated design package. The Secretary may also require upfront or later submittal of a Contingency Plan, primarily if identified explicitly in the CMD, or as project needs dictate based on Site-wide and performance monitoring. Typically, in these circumstances, the Secretary’s expectation is that a contingency be identified in general terms only with a Contingency Plan developed if/when the need arises at a later date as requested by the Secretary. If the contingent corrective measure represents a fundamental change from the original selected corrective measure(s), then community involvement activities and/or decision document amendment may be required.

The Permittee’s primary objectives of the CMI phase are as follows:

1) To implement the CMI Work Plan and associated design documents as approved by the Secretary;
2) To operate and maintain the corrective measures system as described in the approved O&M Plan;
3) To evaluate and monitor the performance of the corrective measures as described in the approved Site Monitoring and Performance Evaluation Plan;
4) To determine whether corrective action objectives (CAOs) or media cleanup goals have been attained, or are likely to be attained;
5) To confirm attainment of CAOs or media cleanup goals by conducting post-corrective measures monitoring as described in the approved Site Monitoring and Performance Evaluation Plan;
6) To implement the approved Contingency Plan, as required by the Secretary, to design, install and operate additional or alternative corrective measures in the event the implemented corrective measure(s) is unable to attain CAOs within a reasonable timeframe, as determined by the Secretary;
7) To document and report to the Secretary all activities performed pursuant to the corrective measures decision; and,
8) To submit a final report for the Secretary’s approval which briefly describes the corrective measures implemented at the Site, and provides the appropriate data documenting that Site-specific CAO’s have been attained.

Depending on the complexity of the selected corrective measures and the Secretary’s requirements, the CMI Work Plan and associated design documents submitted by the Permittee may need to address operation and maintenance via an O&M Plan as well as corrective measures system performance monitoring and Site-wide monitoring (e.g., plume control) via a Site Monitoring and Performance Evaluation Plan. As discussed above, the Secretary may also require upfront or later submittal of a Contingency Plan.
CMI PLANNING/IMPLEMENTATION/REPORTING

CMI Work Plan - In general, the Permittee’s CMI Work Plan and associated design documents will include, at a minimum, a summary of available Site information and available investigation results; a detailed description of the proposed corrective measures; CAOs or media cleanup goals; depending on the complexity of the proposed corrective measures, complete design specifications and drawing/schematics, including any relevant figures and/or Site system engineering layouts such as process flow diagram, piping and instrumentation diagram, or other relevant documents; engineering design basis; cost estimate; and, a detailed working schedule presented graphically in the form of a milestone chart (e.g., Gantt chart) or critical path diagram to show the duration and interdependencies of the various activities. As necessary or required, Permittee shall update and submit the detailed working schedule to the Secretary as part of the routine reporting requirements.

The exact elements, content and delivery strategy of the CMI Work Plan and all associated design documents will be determined by the Secretary, in consultation with the Permittee. Typically, a preliminary (10%) design package will minimally include a design delivery strategy, preliminary construction schedule, specifications outline, preliminary drawings, design basis report, and a detailed statement of how all applicable regulatory requirements will be met. An intermediate (30-50%) design package will include an updated construction schedule, preliminary specifications, intermediate drawings, updated design basis report, and updated requirements evaluation. A pre-final/final (90-100%) design package will include updates of the above-mentioned items plus pre-final/final design specifications/drawings and design basis report/design analysis. Unless submitted separately, the CMI Work Plan/Final Design Package must address O&M and performance monitoring needs as well as shakedown testing and startup procedures. There may also be a need or requirement for development of a Construction Quality Assurance Plan and a separate Health and Safety Plan for CMI activities.

The Permittee must describe in detail all tasks necessary to acquire additional data to support the development of a CMI Work Plan/Final Design Package and to construct, implement, and monitor the performance of the corrective measures. All necessary tasks shall be documented and described by the Permittee in adequate detail to clearly state the manner in which they will be implemented and reported. The tasks shall address obtaining appropriate easements, permits, or other administrative approvals or documents, and, where wastes or hazardous substances, pollutants, or contaminants will remain on the Facility at concentrations that disallow unlimited use and unrestricted exposure, include those tasks necessary for establishing institutional controls as approved by the Secretary.

Additional Data Acquisition Plan (Optional)—If additional data collection is needed or required to prepare the CMI Work Plan or support the design effort, an Additional Data Acquisition Plan must be submitted by the Permittee in advance, for the Secretary’s approval. The intent of any additional data acquisition is to provide sufficient data to support the subsequent corrective measures design and/or start-up of the Secretary’s selected corrective measures. All data gathering activities must be completed in a manner consistent with available KDHE policy and guidance. The Permittee must collect analytical data of appropriate data quality and quantity to facilitate comparison to applicable threshold levels as established in KDHE’s Risk-Based Standards for Kansas RSK Manual (RSK Manual). All data should be validated at the appropriate field or
laboratory quality control level to determine whether it is appropriate for its intended use. At the Secretary’s discretion, Permittee’s reporting associated with additional data gathering activities may be reported separately, incorporated into the CMI Work Plan/Final Design Package or incorporated into the CMI Report.

**Site Monitoring and Performance Evaluation Plan**—Whether included in the CMI Work Plan described above, the Corrective Measures Construction Completion (CMCC) Report, or prepared separately, the Permittee must submit for approval a Site Monitoring and Performance Evaluation Plan, which will document the activities necessary to evaluate the effectiveness of the corrective measures in terms of corrective measures system performance monitoring and Site-wide monitoring, as appropriate. At a minimum, the Site Monitoring and Performance Evaluation Plan shall include:

- a description of the Site-specific CAOs or media cleanup goals;
- a description of the corrective measures system operations that will be evaluated and identification of criteria that will be used to evaluate system performance;
- frequency, methods, parameters, and rationale for Site monitoring;
- a description of the environmental media to be monitored, such as groundwater, surface water, soil, soil vapor, indoor air, or other media, or as required by the Secretary;
- a description of quality assurance/quality control (QA/QC) considerations for the laboratory and field;
- identification of institutional controls that will be inspected/monitored;
- a plan for evaluating changes in land use of impacted areas that may alter the effectiveness of the corrective measures; and,
- a description of reporting methods, format, and frequency.

**O&M Plan**—Whether included in the CMI Work Plan/Final Design Package described above or prepared separately, the Permittee must submit an O&M Plan to the Secretary for review and approval. To facilitate preparation of an O&M Plan, the Permittee shall follow U.S. Environmental Protection Agency (EPA) guidance entitled *Operation and Maintenance in the Superfund Program* (OSWER 9200.1-37FS; EPA540-F-01-004; May 2001), or as approved by the Secretary. The objective will be that any operator is be able to use the O&M Plan and clearly understand O&M procedures to be followed, documentation requirements and corrective measures to be taken, dependent upon anticipated circumstances or upset conditions. The Permittee shall include proper planning and advance contingency considerations to minimize corrective measures system downtime.

**CM Implementation and Reporting**—The Permittee shall implement the corrective measures selected for the Site in accordance with the Secretary-approved CMI Work Plan/Final Design Package. Implementation of the corrective measures by the Permittee shall follow the Secretary-approved schedule. The Permittee shall conduct a pre-construction inspection and meeting as well as routine inspections during CMI. Depending on the complexity and duration of the corrective measures effort, the Secretary may require submission of interim status reports on a periodic basis (e.g., weekly, bi-monthly, monthly, or other time period determined by the Secretary) documenting CMI activities. When construction is complete, the Permittee shall notify the Secretary to conduct a final inspection consisting of a walk-thru of the Site.
The Permittee’s Final CMI Report shall document the corrective measures constructed or implemented at the Site and shall be submitted to the Secretary for review and approval. The Permittee shall consult with the Secretary to determine the appropriate form or content of the Final CMI Report. Submission of the Final CMI Report should not be construed to constitute fulfillment of all obligations on the part of the Permittee at a given site. Instead, the Final CMI Report represents reporting of the corrective measures taken to that point in time, predominantly a reporting of the constructed or engineered systems. Depending on project needs, and/or the Secretary’s requirements, CMI-related reporting may also necessitate the Permittee’s submission of a Corrective Measures Construction Complete (CMCC) Report and/or Corrective Measures Completion (CMC) Report.

Site Monitoring and Performance Evaluation Reporting—The effectiveness of the corrective measures, including schedule and frequency, shall be monitored as specified in the Secretary-approved Site Monitoring and Performance Evaluation Plan. The Permittee must submit Site Monitoring and Performance Evaluation Reports to the Secretary in accordance with the Secretary-approved Site Monitoring and Performance Evaluation Plan. The Site Monitoring and Performance Evaluation Reports must contain all of the information and data as described within the Site Monitoring and Performance Evaluation Plan, including a narrative description and/or graphic evaluation of the effectiveness of the corrective measures in achieving Site-specific CAOs or media cleanup goals.

If the Site monitoring and performance evaluation program demonstrates that the implemented corrective measures are incapable of achieving corrective action goals within a reasonable timeframe as determined by the Secretary, the Site Monitoring and Performance Evaluation Report should recommend modifications or augmentation to the existing corrective measures system that will enable the system to achieve the media cleanup goals. The Permittee must notify the Secretary within seven days of any significant changes that may diminish the effectiveness of the implemented corrective measures in protecting human health and the environment.

At a minimum, the Site Monitoring and Performance Evaluation Reports shall include:

- a narrative description and graphic illustration of the effectiveness of the corrective measures;
- a description of system operations and performance;
- a system startup report and “as built” drawings of the corrective measures system, which are required for the first Site Monitoring and Performance Evaluation Report, unless approved by the Secretary to be reported separately;
- a description of repairs or modifications made to the corrective measures system during the reporting period, as appropriate;
- laboratory analytical data, including copies of laboratory reports and summary tables;
- contaminant isoconcentration maps;
- a tabular comparison of the current monitoring data to previous monitoring results;
- a figure illustrating the Site and associated monitoring wells or other sample point locations;
- static water elevation measurements;
• a contour map of the water level elevation;
• a description of any deviations from the approved sampling procedures;
• results of QA/QC data and an evaluation of the validity of the analytical data;
• logs of any newly constructed Site wells;
• an evaluation of the effectiveness of institutional controls implemented for the corrective measures; the frequency of evaluations will be identified in the approved Site Monitoring and Performance Evaluation Plan;
• an evaluation of land use of the impacted area; frequency of evaluations will be identified in the approved Site Monitoring and Performance Evaluation Plan;
• specific conclusions and recommendations for further corrective measures or changes based on historical Site monitoring and performance data trends; and,
• all other relevant Site data collected during the reporting period or as required by the Secretary.
ATTACHMENT 13

FORM OF INVOICE FOR OVERSIGHT COSTS
ATTACHMENT 13
FORM OF INVOICE FOR OVERSIGHT COSTS
(Payroll and Expense Detail Entries are for Example Purposes Only)

KDHE/Bureau of Waste Management
Attn: Mandy Patek
1000 SW Jackson Street, Suite 320
Topeka, KS  66612-1366

Period: XX/XX/XX through XX/XX/XX
Date:  XX/XX/XX

Payment Due in 30 days

This invoice is for costs incurred by, or on behalf of, KDHE for the referenced project. Please make check payable to the KDHE/Bureau of Waste Management and enclose a copy of the invoice with payment to the above address to appropriately credit your account. Questions regarding this invoice should be directed to Mandy Patek at (785) 296-0680 or Mandy.Patek@ks.gov.

Project Name: XXXXXXXXXXXXXXXXXXXXXXXXXXX
Permit Date:  XXXX XX, 20XX
Project Code: EPA ID No. KSXXXXXXXXXX
Cost Acct: XXXXXXXXXX

Payroll Details:

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<tr>
<td>Professional Geologist</td>
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<td>Letter/Document Preparation/Review and/or Approval</td>
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Total Payroll Costs $ XXX.XX

Other Expense Details:

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Total Other Expense Costs $ XXX.XX

Summary:

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<tr>
<td>Administrative Costs</td>
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</tbody>
</table>

TOTAL DUE XXX.XX

Note: The Kansas Department of Health and Environment's (KDHE) administrative office expenses include computer use, rent, utilities and other support services. This amount equals 40% of the sum of Payroll and Other Expense Costs. Contractual, field supplies, KDHE equipment use, and lab analysis, and other administrative field expenses are computed at 12.5%.

THIS IS AN INVOICE
ATTACHMENT 14

KDHE/BUREAU OF WASTE MANAGEMENT
(KDHE/BWM)
RCRA CORRECTIVE ACTION FIELD ACTIVITIES
NOTIFICATION FORM
ATTACHMENT 14
KDHE/BUREAU OF WASTE MANAGEMENT (KDHE/BWM)
RCRA CORRECTIVE ACTION FIELD ACTIVITIES NOTIFICATION FORM

This field notification form is only applicable to certain Facilities/Sites managed by the Hazardous Waste Permits Section and is **not** intended for use by other programs. Specifically, the form is to be used solely for notification of RCRA corrective action-related field activities. Please provide advance written notification by completing this form and submitting it to the Secretary at least 14 (fourteen) days before the field activity. If you have any problems completing this form, please call the assigned KDHE/BWM Project Manager, or 785-296-1602 for assistance. Note: If you are amending or canceling a previous notification, please enter the date of that previous notification (if known).

☐ ☐ I want to submit a new notification.
☐ ☐ I want to amend a previous notification. (Enter date if known)___________________
☐ ☐ I want to cancel a previous notification. (Enter date if known)___________________
(*denotes required fields)

*Project Name:_________________________________________________________________
*KDHE Project Manager:_________________________________________________________

**Location of work:**
*County:______________________________________________________________________
*City (or nearest city):___________________________________________________________

**Anticipated dates and duration of work:**
*Start Date (mm/dd/yy):__________________________________________________________
*Duration of work (days):_________________________________________________________
☐ ☐ Check this box if work is expected to occur on any weekend or holiday days.

**Primary Field Contact:**
*Name:_______________________________________________________________________
*Affiliation/Company:___________________________________________________________
*Primary Phone Number:________________Alternate Phone Number:____________________
Email Address:_________________________________________________________________

**Alternate Contact:**
*Name:_______________________________________________________________________
*Affiliation/Company:___________________________________________________________
*Primary Phone Number:________________Alternate Phone Number:____________________
Email Address:_________________________________________________________________

**Brief Description of Work to be Performed:**
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________