



November 8, 2022

Lt Col John H. Brindle
Commander, 97th Civil Engineer Squadron
401 L Avenue, Bldg. 358
Altus AFB, OK 73523-5138

RE: AAFB Comments on Courtesy Draft Permit
RCRA Corrective Action Permit Renewal Application
Permit Number: 9571824045-CA
EPA ID Number: OK9571824045

Dear Lieutenant Colonel Brindle:

On June 21, 2019, the Land Protection Division of the Department of Environmental Quality (DEQ) received the above referenced Permit Renewal Application (Application) dated June 14, 2019, for Altus Air Force Base (AFB). The Application was reviewed for administrative and technical completeness in accordance with Title 40 of the Code of Federal Regulations (40 CFR) parts 264 and 270, the Oklahoma Hazardous Waste Management Act (27A O.S. §§ 2-7-101 *et seq.*), Oklahoma Administrative Code (OAC) 252:4 and OAC 252:205.

DEQ determined the Application to be administratively complete on September 6, 2019, at which time the technical review commenced. DEQ determined the application to be technically complete and issued a Courtesy Draft Permit on July 8, 2022. Altus AFB submitted comments on the Courtesy Draft Permit on September 15, 2022. DEQ has made the requested revisions to the Draft Permit.

Enclosed is a Draft Permit for public review and comment. Altus AFB is required to publish notice of opportunity to comment and request a public meeting on the Draft Permit in at least one (1) local newspaper of general circulation. Concurrently, a notice should be broadcast on a local radio station. These notices must announce the opening of a forty-five (45) day comment period. Additionally, Altus AFB is to send a notice of the Draft Permit to all persons on the facility mailing list and to appropriate state and local government agencies as specified in 40 CFR 124.10(c)(1)(ix) and (x). Subsequently, proofs of publication and broadcasts must be furnished to DEQ within twenty (20) days after the date of publication pursuant to OAC 252:4-7-13(d). A fact sheet is included in the Draft Permit for public information. Please ensure a copy of the Draft Permit is made available at the Altus Public Library. A copy of the Draft Permit will also be available at the DEQ office and on DEQ's website at: <https://www.deq.ok.gov/land-protection-division/permit-public-participation-process/>.


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Lt Col Brindle
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If you have any questions, please contact Brigette Haley of my staff (405) 702-5104.

Sincerely,

A handwritten signature in black ink, appearing to read "Hillary Young", with a stylized flourish at the end.

Hillary Young, P.E.
Chief Engineer
Land Protection Division

cc: Harry Shah (6LCR-RP), EPA Region VI (via email)

Enclosure: Public Draft Permit

Newspaper Notice Text

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY NOTICE OF DRAFT CORRECTIVE ACTION PERMIT FOR AN EXISTING HAZARDOUS WASTE MANAGEMENT FACILITY

The Oklahoma Department of Environmental Quality (DEQ) has received an application to renew a hazardous waste permit for the continued corrective action and groundwater monitoring at Altus Air Force Base (AFB), located within Sections 34, 35, and 36 of Township 3 North, Range 20 West, Indian Meridian, and Sections 1, 2, 3, 9, 10, 11, 12, 13, 14, and 15 of Township 2 North, Range 20 West, Indian Meridian, all located in Jackson County, Oklahoma. Altus Air Force Base is located within the corporate limits of the City of Altus in Jackson County in southwestern Oklahoma. The application was filed on June 14, 2019.

DEQ has found that the application meets the requirements of Title 40 of the Code of Federal Regulations (40 CFR) parts 264 and 270, Title 27A of the Oklahoma Statutes (27A O.S. §§ 2-7-101, *et. seq.*), the Oklahoma Administrative Code (OAC) 252:4 and OAC 252:205 and has prepared a draft corrective action permit for public review.

The draft corrective action permit and its conditions propose the continued corrective action and groundwater monitoring of various sites throughout the base. The corrective action permit would be issued under the authority of the Oklahoma Hazardous Waste Management Act and the Federal Resource Conservation and Recovery Act.

The application, draft permit, and related documents may be reviewed during normal business hours at:

DEQ's Office of Central Records located on the 2nd floor of the DEQ building at 707 N. Robinson Avenue, P.O. Box 1677, Oklahoma City, OK 73101-1677; and on DEQ's website at <https://www.deq.ok.gov/land-protection-division/permit-public-participation-process/>.

Altus Public Library located at 421 N Hudson St, Altus, OK 73521

The DEQ and Altus AFB contacts are:

DEQ: Hillary Young, P.E., Chief Engineer
Land Protection Division
Department of Environmental Quality
P.O. Box 1677

Oklahoma City, OK 73101-1677
(405) 702-5100

Altus AFB: Mary C. Bitney
Remedial Project Manager
AFCEC/CZOW/Altus AFB
401 L Avenue, Bldg. 358
(580) 481-7346

Persons wishing to comment on the draft permit should submit their comments in writing to DEQ at the above address. Also, any person may request, in writing, a formal public meeting to present written or oral statements and data concerning the draft permit. A request for a public meeting must identify the nature of the issues to be raised in the meeting. If DEQ determines, based on the requests it receives, that there is significant degree of public interest in the draft permit, it will schedule a public meeting and provide notice of the date, time and place.

Written comments and requests for a public meeting must be received by DEQ within forty-five (45) days after the date of this publication. More specific information may be obtained by contacting the applicant at the Altus AFB contact given above, or by contacting DEQ at the contact listed above.

Radio Broadcast Text

Oklahoma Department of Environmental Quality Notice of Proposed Permit Conditions For a Hazardous Waste Management Facility

The Oklahoma Department of Environmental Quality has reviewed a permit renewal application submitted by Altus Air Force Base to conduct corrective action and groundwater monitoring at various sites throughout the base. The facility is located within Sections 34, 35, and 36 of Township 3 North, Range 20 West, Indian Meridian, and Sections 1, 2, 3, 9, 10, 11, 12, 13, 14, and 15 of Township 2 North, Range 20 West, Indian Meridian, all located in Jackson County, Oklahoma. Altus Air Force Base is located within the corporate limits of the City of Altus in Jackson County in southwestern Oklahoma. The street address for the facility is 401 L Avenue, Building 358, Altus Air Force Base, Altus, Oklahoma 73523-5138. The Oklahoma Department of Environmental Quality has made a tentative determination to renew the permit.

The draft permit and its conditions propose that Altus Air Force Base continue corrective action and groundwater monitoring. The permit would be issued under the authority of the Oklahoma Hazardous Waste Management Act and the Federal Resource Conservation and Recovery Act.

Further information, including the application, draft permit, and a fact sheet may be reviewed at the Altus Public Library located at 421 N Hudson St, Altus, OK 73521. These documents may also be viewed during normal business hours at the Department of Environmental Quality's Central Records Office located at 707 N Robinson Ave, Oklahoma City, OK 73102 and on DEQ's website.

Persons wishing to comment on the draft permit or to request a public meeting should submit their comments or requests in writing to DEQ no later than forty-five days from the date of this broadcast. DEQ's mailing address is P. O. Box 1677, Oklahoma City, Oklahoma, 73101-1677.

For further information about this notice, please contact Hillary Young, Chief Engineer of Land Protection Division at DEQ, at (405) 702-5100. That number again is (405) 702-5100.

**ALTUS AIR FORCE BASE
ALTUS, OKLAHOMA**

RCRA CORRECTIVE ACTION PERMIT

FACT SHEET

Type of Action: Oklahoma Department of Environmental Quality (DEQ) Resource Conservation and Recovery Act (RCRA) renewal Permit for conducting corrective actions at Groundwater Management Units and individual Solid Waste Management Units under the Hazardous and Solid Waste Amendments to RCRA of 1984 (HSWA) and the Oklahoma Hazardous Waste Management Act.

Type of Facility: Altus Air Force Base is a United States Air Force installation under the Air Education and Training Command (AETC) Major Command (MAJCOM) that currently hosts the formal training units for the C-17, KC-135, and KC-46 aircraft. These three air mobility schoolhouses conduct initial and advanced specialty training programs for airland, airdrop, and air refueling mobility forces, providing global reach for combat and contingency operations, as well as relief operations.

EPA ID Number: OK9571824045

Location: 401 L Avenue (Bldg. 358)
Altus Air Force Base
Altus, Oklahoma 73523-5138

Legal Description: Located within Sections 34, 35, and 36 of Township 3 North, Range 20 West, Indian Meridian, and Sections 1, 2, 3, 9, 10, 11, 12, 13, 14, and 15 of Township 2 North, Range 20 West, Indian Meridian, all located in Jackson County, Oklahoma. Altus Air Force Base is located adjacent to the City of Altus in Jackson County in southwestern Oklahoma.

Geographic Location: Latitude: 34° 39' 8" North
Longitude: 99° 17' 17" West

Landowner: United States Department of Defense

Facility Operator: United States Air Force

Comment Period: 45 days from the date of publication

Basis of the Draft Permit:

On June 21, 2019, DEQ received a RCRA Part B Permit Renewal Application (Application) for the renewal of the Altus Air Force Base (AFB) RCRA Corrective Action Permit. DEQ determined the application to be administratively complete on September 6, 2019, at which time a technical review commenced. DEQ requested additional information on July 29, 2020 and January 12, 2021. Altus AFB responded with additional information on August 17, September 15 and September 21, 2020 and March 3, 2021.

The requirements of the Oklahoma Hazardous Waste Management Act (OHWMA), the Oklahoma Administrative Code Hazardous Waste Management Regulations (OAC 252:205) as amended, the Federal Resource Conservation and Recovery Act (RCRA), and Title 40 of the Code of Federal Regulations (40 CFR) have been met, and DEQ has prepared proposed permit conditions. The proposed Corrective Action Permit allows for the continuance of corrective action and groundwater monitoring activities.

The Administrative Record supporting the potential permit conditions consists of the initial Application dated June 14, 2019, and all supplemental information submitted through March 3, 2021, that relates to the Application or are referenced in the Draft Permit and this Fact Sheet.

The proposed Corrective Action Permit potential conditions incorporate the applicable requirements of OAC 252:205 and 40 CFR Part 270, and other such conditions as are required to achieve environmentally sound hazardous waste management.

Information Resources

Copies of the proposed draft permit conditions, this Fact Sheet, and the Part B Application are available for review during normal business hours at the locations listed below:

Altus Public Library
421 N Hudson St.
Altus, OK 73521
Phone (580) 477-2890

Oklahoma Department of Environmental Quality
Office of Central Records
707 North Robinson, 2nd Floor
Oklahoma City, Oklahoma 73102
(405) 702-1188

DEQ Website:

<https://www.deq.ok.gov/land-protection-division/permit-public-participation-process/>

Telephone inquiries may be directed to:

DEQ: Hillary Young, Chief Engineer

Land Protection Division, DEQ (405) 702-5100

Altus AFB: Mary Bitney, Remedial Project Manager

Altus AFB (580) 481-7346

Comment Period and Procedures

Persons wishing to comment on the proposed permit conditions may submit their comments, in writing, to DEQ at the address listed below. DEQ will consider and formally respond to all relevant comments in the issuance of the final permit decision. Comments should be directed to the appropriateness of the permit decision and the permit conditions, and should be factual in nature. All comments must be received at DEQ no later than forty-five (45) days after the publication of the Notice for the draft permit.

Hillary Young, P.E.,
Chief Engineer
Land Protection Division
Oklahoma Department of Environmental Quality
707 N. Robinson, Ave,
P. O. Box 1677
Oklahoma City, OK 73101-1677

The applicable comment period and public hearing procedures may be found at OAC 252:4 and 40 CFR Part 124. The comment period during which written comments on the draft permit may be submitted extends for forty-five (45) days from the date of Notice of the proposed action.

Public Meeting

Pursuant to 40 CFR Part 124 and the Uniform Permitting Act, Title 27A of the Oklahoma Statutes, Section 2-14-303, interested parties may request a public meeting on the permit. The request must be in writing and submitted prior to the closing date of the comment period which expires forty-five (45) days from the date of publication. Persons wishing to request a public meeting should submit their request and/or comments in writing to Hillary Young, Chief Engineer, Land Protection Division at the above address, no later than forty-five (45) days after publication.

Notice of Final Determination

DEQ will notify the applicant and each person who has submitted written comments or requested notice when the final permit decision is made. Within thirty (30) days after a RCRA permit decision has been made, any person who filed comments on the draft permit or participated in the public meeting/hearing may petition the Executive Director or DEQ to review any condition of the permit decision. The petition shall include a statement of the reasons supporting that review, including a demonstration that any issues being raised were raised during the public comment period, and when appropriate, a showing that the condition in question is based on a finding of fact or conclusion of law which is clearly erroneous, or an exercise of discretion or important policy consideration which DEQ should review. A petition to DEQ is a prerequisite to judicial review under OAC 252:205-3-2 which incorporates 40 CFR 124.19 and should be directed to the address listed below:

Scott Thompson, Executive Director
Department of Environmental Quality
707 N. Robinson Ave
Oklahoma City, Oklahoma 73101-1677

If no comments are received during the comment period, the permit will become final and effective immediately upon issuance.



ALTUS AIR FORCE BASE

RESOURCE CONSERVATION AND RECOVERY ACT CORRECTIVE ACTION PERMIT

Permit No. 9571824045-CA

Oklahoma Department of Environmental Quality

[DATE]

**OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
RESOURCE CONSERVATION AND RECOVERY ACT PERMIT
FOR CONDUCTING CORRECTIVE ACTION OPERATIONS**

ALTUS AIR FORCE BASE

EPA ID#: OK9571824045

Permit Number: 9571824045-CA

Permittee: Altus Air Force Base
401 L Avenue (Bldg. 358)
Altus, Oklahoma 73523-5138

Effective Date: XX XX, 2022
Expiration Date: XX XX, 2032

Pursuant to the Resource Conservation and Recovery Act of 1976 (RCRA) and the Hazardous and Solid Waste Amendments of 1984 (HSWA) and regulations promulgated thereunder by the U.S. Environmental Protection Agency (EPA) codified in Title 40 of the Code of Federal Regulations (40 CFR), the Oklahoma Hazardous Waste Management Act (OHWMA) at 27A O.S. 1994, §2-7-101, *et seq.*, and rules promulgated thereunder in the Oklahoma Administrative Code (OAC) 252:205, the Oklahoma Uniform Environmental Permitting Act at 27A O.S. § 2-14-101 *et seq.*, and rules promulgated thereunder in OAC 252:4-7, a Permit to conduct hazardous waste corrective action and monitoring is reissued by the Department of Environmental Quality (DEQ) to Altus Air Force Base (Permittee). The facility is located within the corporate limits of the City of Altus, on approximately 6,000 acres in parts of Sections 34, 35, and 36 of Township 3 North, Range 20 West, Indian Meridian, and parts of Sections 1, 2, 3, 9, 10, 11, 12, 13, 14, and 15 of Township 2 North, Range 20 West, Indian Meridian, Jackson County, Oklahoma (Latitude 34° 39' 8" North and Longitude 99° 17' 17" West), summarily described as follows:

The Permittee is a Department of Defense (DOD) installation under the U.S. Air Force Education and Training Command. Historical facility operations resulted in the release of hazardous constituents to soil and groundwater. The Permittee must comply with all terms and conditions of this Permit. This Permit consists of the conditions contained herein (including those in any attachments); the applicable regulations contained in 40 CFR Parts 124, 260 through 264, 266, and 270, as specified in the Permit; and other applicable State and Federal Statutes and regulations. Applicable regulations are those which are in effect on the date of issuance of the Permit, in accordance with 40 CFR 270.32(c). Primary responsibility for the enforcement of the provisions of this Permit lies with DEQ.

This Permit is based upon the documentation and technical data collected during the various RCRA Facility Investigations and Corrective Measure Study phases submitted to EPA and DEQ since 1999; the technical and legal requirements pursuant to Section 3008h of RCRA, and the assumption that all information submitted in the Part B Permit Application is accurate, and that the facility will be operated as specified in the Application.

Any inaccuracies found in the submitted information may be grounds for the termination, revocation and reissuance, or modification of this Permit in accordance with 40 CFR 270.41, 270.42, and 270.43 and for enforcement action.

This Permit is effective as of _____, 2022 and shall remain in effect until _____, 2032, unless revoked and reissued under 40 CFR 270.41, terminated under 40 CFR 270.43, or continued in accordance with 40 CFR 270.51(a).

Issued this ____th day of _____ 2022.

Hillary Young, P.E.
Chief Engineer
Land Protection Division

Kelly Dixon
Director
Land Protection Division

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ATTACHMENTS

1. CORRECTIVE MEASURES IMPLEMENTATION WORK PLAN
2. PERFORMANCE MONITORING SAMPLING AND ANALYSIS PLAN
3. FINAL ADMINISTRATIVE ORDER DOCKET No. RCRA-VI-002(h)-95-H
4. INSPECTION REQUIREMENTS

DRAFT

SECTION I – GENERAL PERMIT CONDITIONS

A. GENERAL

The Permittee shall operate, monitor, and maintain the corrective action programs described herein in compliance with the provisions of the Oklahoma Hazardous Waste Management Act (OHWMA), 27A O.S. §§ 2-7-101 *et. seq.*, as amended, the Oklahoma Administrative Code (OAC) 252:205, the Federal Resource Conservation and Recovery Act (RCRA), including the Hazardous and Solid Waste Amendments of 1984 (HSWA), and the approved Permit application as further modified through Permit conditions set herein.

B. BASIS OF PERMIT

This Permit is granted based on the information submitted and the design criteria presented in the application and all subsequent revisions. Any inaccuracies found in this information could provide cause for the termination or modification of this Permit, and for enforcement action. The Permittee is to inform the Oklahoma Department of Environmental Quality (DEQ) of any deviation from or changes in the design or operation of the facility which could affect the Permittee's ability to comply with the applicable regulations or Permit conditions.

This Permit shall be reviewed by DEQ five (5) years after the date of Permit issuance and shall be modified as necessary, as provided in Title 40 of the Code of Federal Regulations (40 CFR) Part 270.41 and OHWMA § 2-7-127(B). Except as provided in Permit Condition I.F.3 (40 CFR 270.51), the term of the Permit shall not be extended by modification beyond the expiration date appearing on the face of this Permit (40 CFR 270.50(b)).

C. INCORPORATION BY REFERENCE

All the referenced 40 CFR Parts 124, 260 through 266, 268, and 270 as specified in this Permit are, unless otherwise stated, incorporated in their entirety by OAC 252:205-2-1 through OAC 252:205-3-6.

D. DEFINITIONS

Except for the terms defined below, for purposes of this Permit, terms used herein shall have the same meaning as those in 40 CFR Parts 124, 260, 261, 264, 266, 268 and 270; and OAC 252:205-1-2 through OAC 252:205-3-6; unless this Permit specifically provides otherwise. Where terms are not defined in OAC, RCRA regulations or this 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.

“Action Levels” means health and environmental-based levels of constituent concentrations determined by DEQ to be indicators for protection of human health and the environment.

“Application” refers to the RCRA Part B Application and subsequent amendments submitted by the Permittee for obtaining a permit.

“Area of Concern” (AOC) means any discernable unit or area which, in the opinion of DEQ, may have received solid or hazardous waste or waste containing hazardous constituents at any time

and which may have released hazardous constituents. DEQ may require investigation of the unit as if it were a SWMU. If shown to be a SWMU by the investigation, the AOC must be reported by the Permittee as a newly identified SWMU. If the AOC is shown not to be a SWMU by the investigation, DEQ may determine that no further action (NFA) is necessary and notify the Permittee in writing.

“Conceptual Site Model” (CSM) is part of the Data Quality Objective (DQO) process that presents a three-dimensional picture of site conditions at a discrete point in time that conveys what is known about the facility, releases, release mechanisms, contaminant fate and transport, exposure pathways, potential receptors, and risks. The information for the CSM is documented into six profiles (i.e., Facility Profile, Land Use and Exposure Profile, Physical Profile, Release Profile, Ecological Profile, and Risk Management Profile). The CSM evolves as data gaps in the profiles become more complete, and it will be refined based upon results of site characterization data. The final CSM is documented in the Risk Management Plan (RMP).

“Constituents of Concern” (COC) means those chemical compounds which have been frequently encountered during sampling events and have been selected as having a reasonable likelihood of having been or might be released, are consistent with the Conceptual Site Model, and pose an adverse hazard or risk to human health or the environment.

“Constituents of Potential Concern” (COPC) means chemicals from hazardous waste and hazardous waste constituents that are potentially site related and have data of quality for use in site screening or a site-specific risk assessment. The facility should compile a list of COPCs for each release site based on existing sampling data, waste analysis reports, etc.

“Corrective Action” is a requirement under the Resource Conservation and Recovery Act (RCRA) that facilities that treat, store or dispose of hazardous wastes investigate and clean up hazardous releases into soil, groundwater, surface water and air. Corrective Action is principally implemented through RCRA permits and orders. Facilities are generally brought into the RCRA Corrective Action process when there is an identified release of hazardous waste or hazardous constituents.

“Corrective Action Objectives” (CAOs) means (1) those corrective action objectives established by DEQ; (2) preferred alternatives for corrective measures to meet the intended remedial goals; and (3) performance-based measures to ensure protectiveness. The CAOs are developed by DEQ and are based on current and reasonably anticipated land and groundwater uses.

“Corrective Action Process” occurs when the RCRA corrective action cleanup process focuses on results rather than specific steps, and is flexible, depending on site-specific conditions. A typical cleanup may include steps such as: initial site assessment, site characterization, interim actions, evaluation of remedial alternatives, and implementation of the selected remedy.

“Corrective Action Strategy” (CAS) means the EPA Region 6 Corrective Action Strategy. CAS is a risk management, performance-based alternate corrective action approach using the development of corrective action objectives based upon performance standards.

“DEQ” means the Oklahoma Department of Environmental Quality.

“Dense Non-Aqueous Phase Liquid” (DNAPL) is a liquid that is both denser than water and is immiscible in water. DNAPLs tend to sink below the water table. DNAPLs can provide a long-term secondary source to dissolved groundwater plumes and can act as an ongoing pathway for constituents to dissolve in groundwater.

“Director” means the Executive Director of the Oklahoma Department of Environmental Quality, or his/her designee or authorized representative.

“Division Director” means the Director of the Land Protection Division of the Oklahoma Department of Environmental Quality, or his/her designee or authorized representative.

“EPA” means the United States Environmental Protection Agency.

“Facility” means all contiguous property under the control of the owner or operator seeking a permit under Subtitle C of RCRA.

“GWMU” means Groundwater Management Unit.

“HSWA” means the 1984 Hazardous and Solid Waste Amendments to RCRA.

“Hazardous Constituent” means any constituent identified in Appendix VIII of 40 CFR Part 261, or any constituent identified in Appendix IX of 40 CFR Part 264.

“Hazardous Waste” means a hazardous waste as defined in 40 CFR 261.3.

“Land Protection Division” (LPD) means the Land Protection Division of the Oklahoma DEQ.

“Maximum Contaminant Level” (MCL) is the legal threshold limit on the amount of a substance that is allowed in public water systems under the Safe Drinking Water Act. MCLs are standards set by EPA and an MCL is an enforceable regulation.

“Permit” means the full permit, Resources Conservation and Recovery Act and special conditions pursuant to the 1984 Hazardous and Solid Waste Amendments to RCRA.

“Permittee” means Altus Air Force Base, Oklahoma, EPA ID No. OK9571824045.

“Point of Compliance” (POC) is defined as the most down-gradient boundary (i.e., groundwater and/or surface water) of the applicable on- or off-base properties described by the legal descriptions in the restrictive (environmental) covenant and easement agreements.

“POC Well” means a well which is located at the point of compliance. The results of analyses of samples from POC wells shall be used to establish compliance with permit limitations established for protection of human health and the environment.

“RCRA” means the Resource Conservation and Recovery Act of 1976 as amended by HSWA in 1984.

“RCRA Permit” means the full permit, with RCRA and HSWA portions.

“RFA” means RCRA Facility Assessment.

“RFI” means RCRA Facility Investigation.

“RSL” means the EPA Region 6 Regional Screening Levels developed using risk assessment guidance. RSLs are risk-based concentrations derived from standardized equations combining exposure information assumptions with EPA toxicity data. RSLs are used in site screening to identify areas, contaminants, and conditions that require further attention.

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

“Solid Waste Management Unit” (SWMU) means any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released. The definition includes regulated units (i.e., landfills, surface impoundments, waste piles and land treatment units). (See AOC definition for passive leakage for a product or one-time spills, potential or suspected contamination, or off-site areas).

“Volatile Organic Compounds” (VOCs) are organic chemicals that have a high vapor pressure at ordinary room temperatures. Their high vapor pressure results from a low boiling point, which causes large numbers of molecules to evaporate or sublime from the liquid or solid form of the compound and enter the surrounding air.

E. EFFECT OF PERMIT

Any storage, treatment or disposal of hazardous waste not authorized in this Permit is prohibited, unless exempted from Permit requirements. Subject to 40 CFR 270.4, compliance with this Permit generally constitutes compliance, for purposes of enforcement, with Subtitle C of RCRA. 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, animals, or property, any invasion of other private rights, or any infringement of state or local laws or regulations. Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under the OHWMA; Sections 3008(a), 3008(h), 3013, or 7003 of RCRA; Sections 104, 106(a) or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 *et seq.*, commonly known as CERCLA), or any other law providing for protection of public health or the environment from an imminent or substantial endangerment. [40 CFR 270.4 and 270.30(g)]

F. PERMIT ACTIONS

1. Permit Modification, Revocation-and-Reissuance, or 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. The filing of a request for a permit modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee, does not stay the

applicability or enforceability of any Permit condition. [40 CFR 270.4(a)(2) and 270.30(f)]

2. Permit Renewal

This Permit may be renewed as specified in 40 CFR 270.30(b) and Permit Condition I.H.2. Review of any application for a Permit renewal shall consider improvements in the state of control and measurement technology, as well as changes in applicable regulations. [40 CFR 270.30(b) and HSWA Sec. 212]

3. Permit Expiration

Pursuant to 40 CFR 270.50, this Permit shall be effective for a fixed term not to exceed ten years from its effective date. This Permit and all conditions herein will remain in effect beyond the Permit's expiration date if the Permittee has submitted a timely, complete application (see 40 CFR 270.10, 270.13 through 270.29) and, through no fault of the Permittee, DEQ has not issued a new Permit, as set forth in 40 CFR 270.51. Permits continued under this section remain fully effective and enforceable. When the Permittee is not in compliance with the conditions of the expiring or expired Permit, DEQ may choose to do any one or more 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 Permit is denied, the owner or operator would then be required to 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 Part 124 with appropriate conditions; or
- d. Take other actions authorized by these regulations.

4. Transfer of Permits

This Permit is not transferable, except after notice to DEQ. DEQ may require modification or revocation and reissuance of the permit pursuant to 40 CFR 270.40. Before transferring ownership or operation of the facility during its operating life, the Permittee shall notify the new owner or operator in writing of the requirements of 40 CFR Parts 264 and 270 and this Permit. [40 CFR 270.30(l)(3) and 264.12(c)]

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

H. DUTIES AND REQUIREMENTS

1. Duty to Comply

The Permittee shall comply with the approved Permit application and all conditions of this Permit, except to the extent and for the duration that noncompliance is authorized by an emergency Permit. Any Permit noncompliance, other than noncompliance authorized by an emergency Permit, constitutes a violation of OHWMA and RCRA and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of a Permit renewal application. [40 CFR 270.30(a)]

2. Duty to Reapply

If the Permittee intends to continue an activity allowed or required by this Permit after the expiration date of this Permit, the Permittee shall submit a complete application for a new Permit at least 180 days prior to permit expiration. [40 CFR 270.30(b)]

3. Permit Extension

This Permit and all conditions herein will remain in effect beyond the permit's expiration date until the Administrative Authority issues a final decision on the re-application, provided the Permittee has submitted a timely and complete new permit application as provided in 40 CFR 270.51.

4. Biennial Report

The Permittee shall comply with the biennial reporting requirements of 40 CFR 262.41 and 264.75.

5. 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)]

6. Duty to Mitigate

In the event of noncompliance with this 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)]

7. Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance/quality control 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)]

8. Duty to Provide Information

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

9. Inspection and Entry

Pursuant to 40 CFR 270.30(i), the Permittee shall allow DEQ, upon the presentation of credentials and other documents to meet the security and confidence requirements of the USAF and Altus AFB Security, and accompanied by AFB personnel, as may be required by law, to:

- a. Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and
- d. Sample or monitor, at reasonable times, any substances or parameters at any location for the purposes of assuring Permit compliance or as otherwise authorized by RCRA.

10. Monitoring and Records

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste and/or contaminated media to be analyzed must be the

appropriate method from Appendix I of 40 CFR Part 261 or an equivalent method approved by DEQ. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, EPA Method Compendium SW-846, or an equivalent method approved by DEQ. [40 CFR 270.30(j)(1)]

- b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this Permit, the certification required by 40 CFR 264.73(b)(9), and records of all data used to complete the application for this Permit for a period of at least three (3) years from the date of the sample, measurement, report, record, certification, or application. These periods may be extended by request of DEQ at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility. [40 CFR 270.30(j)(2)]
- c. Pursuant to 40 CFR 270.30(j)(3), records of monitoring information shall specify:
 - i. The date(s), exact place, and times of sampling or measurements;
 - ii. The individual(s) who performed the sampling or measurements;
 - iii. The date(s) 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.

11. Reporting Planned Changes

The Permittee shall give notice to DEQ, as soon as possible, of any planned physical alterations or additions to the permitted facility, only if such changes relate to hazardous waste management or corrective action operations. [40 CFR 270.30(l)(1)]

12. Reporting Anticipated Noncompliance

The Permittee shall give advance notice to DEQ of any planned changes in the permitted facility or activity which may result in noncompliance with Permit requirements. [40 CFR 270.30(l)(2)]

13. Immediate Reporting [40 CFR 270.30(l)(6) and OAC 252:205-13-1]

- a. The Permittee shall report to DEQ any noncompliance which may endanger health or the environment. Any such information shall be reported orally immediately after the Permittee becomes aware of the circumstances. Incidents shall also be included. Upon release of materials that are or become hazardous waste whether by spillage, leakage, or discharge to soils or to air or to surface or ground waters (outside the limits of a discharge permit) or by other means, and which could threaten human health or the environment, the facility shall immediately notify DEQ and take all necessary action to contain, remediate, and mitigate hazards from the release. The report shall include the following:
 - i. Information concerning release of any hazardous waste that may cause an endangerment to base personnel or drinking water supplies;
 - ii. Any information of a release or discharge of contaminated groundwater, or of a compromise to remedial operations which could threaten the environment or human health on-base or outside the facility.
- b. The description of the occurrence and its cause shall include:
 - i. Name, address, and telephone number of the person reporting the incident;
 - ii. Date, time, and type of incident;
 - iii. Location of the incident;
 - iv. Name and quantity of materials involved;
 - v. The extent of injuries, if any;
 - vi. An assessment of actual or potential hazards to the environment and human health on-base and/or outside the facility, where this is applicable; and
 - vii. Estimated quantity and disposition of recovered material that resulted from the incident.
- c. A written submission shall also be provided within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period(s) of noncompliance (including exact dates and times); whether the noncompliance has been corrected; and, if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

DEQ may waive the five-day written notice requirement in favor of a written report within fifteen (15) days.

14. Other Noncompliance

The Permittee shall report all other instances of noncompliance not otherwise required to be reported above at the time monitoring reports are submitted. [40 CFR 270.30(l)(10)]

15. Other Information

Whenever the Permittee becomes aware that it failed to submit any relevant facts in the Permit application, or submitted incorrect information in a Permit application or in any report to DEQ, the Permittee shall promptly submit such facts or information. [40 CFR 270.30(l)(11)]

I. SIGNATORY REQUIREMENT

All applications, reports, or information submitted to DEQ, shall be signed and certified in accordance with 40 CFR 270.11 and 270.30(k).

J. REPORTS, NOTIFICATIONS, AND SUBMISSIONS TO DEQ

All reports, notifications, or other submissions which are required by this Permit to be sent or given to DEQ should be sent by certified mail or given to:

Chief Engineer
Land Protection Division
Oklahoma Department of Environmental Quality
707 N. Robinson, P.O. Box 1677
Oklahoma City, Oklahoma 73101-1677
Telephone Number (405) 702-5100

K. CONFIDENTIAL INFORMATION

In accordance with 40 CFR 270.12, OAC 252:4-1-5(d), and OAC 252:205-1-4, the Permittee may claim confidential any information required to be submitted by this Permit. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions, or in the case of other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of the submission, DEQ may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR Part 2 (Public Information). Claims of confidentiality for the name and address of any permit applicant or Permittee will be denied.

L. DOCUMENTS TO BE MAINTAINED AT THE FACILITY

The Permittee shall maintain at the facility, until all corrective measures and monitoring are complete and closure is completed and certified by an independent, registered professional

engineer, the following documents and all amendments, revisions and modifications to these documents:

1. Waste Analysis Plan, as required by 40 CFR 264.13 and this Permit;
2. Inspection schedules, as required by 40 CFR 264.15(b)(2) and this Permit;
3. Personnel training documents and records, as required by 40 CFR 264.16(d) and this Permit;
4. Contingency Plan, as required by 40 CFR 264.53 and this Permit;
5. Operating record, as required by 40 CFR 264.73 and this Permit;
6. Final Corrective Measures Study (CMS) with Conceptual Site Model (CSM);
7. CMI Work Plan with Appendices

SECTION II – GENERAL FACILITY CONDITIONS

A. DESIGN AND OPERATION OF FACILITY

The Permittee shall maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned, sudden or non-sudden release of hazardous waste constituents to air, soil, ground water, or surface water which could threaten human health or the environment, as required by 40 CFR 264.31.

B. REQUIRED NOTICES

1. Hazardous Waste Imports

The Permittee may not receive hazardous waste from a foreign source.

2. Hazardous Waste from Off-Site Sources

The Permittee may not receive hazardous waste from off-site sources. [40 CFR 264.12(b)]

C. SECURITY

The Permittee is a closed, high-security Department of Defense (DOD) installation, and therefore has 24-hour armed patrols. These security conditions are not anticipated to change during the term of this Permit. Therefore, as long as these conditions remain, the Permittee meets the requirements of 40 CFR 264.14(b)(2) and (c).

D. GENERAL INSPECTION REQUIREMENTS

The Permittee shall inspect the groundwater remediation systems in accordance with the inspection checklists in Permit Attachment 4. The Permittee shall remedy any deterioration or malfunction discovered by an inspection, as required by 40 CFR 264.15(c). Records of inspections shall be kept, as required by 40 CFR 264.15(d).

E. PERSONNEL TRAINING

The Permittee shall be responsible for assuring that adequate training is provided for all personnel performing hazardous waste management practices and operating the remedial systems.

F. SPECIAL PROVISIONS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE

The Permittee shall comply with the requirements of 40 CFR 264.17(a).

G. PREPAREDNESS AND PREVENTION

Required Equipment

At a minimum, the Permittee shall maintain at the facility the equipment required by 40 CFR 264.32.

1. Testing and Maintenance of Equipment

The Permittee shall test and maintain the equipment specified above, as necessary, to assure its proper operation in time of emergency, as required by 40 CFR 264.33.

2. Access to Communications or Alarm System

The Permittee shall maintain access to the communications or alarm system, as required by 40 CFR 264.34.

3. Arrangements with Local Authorities

The Permittee shall 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 with the Permittee, the Permittee must document this refusal in the operating record.

H. CONTINGENCY PLAN

1. Implementation of Plan

The Permittee shall immediately carry out the provisions of the Base-wide Integrated Contingency Plan whenever there is a fire, explosion, or release of hazardous waste or constituents which could threaten human health or the environment.

2. Copies of Plan

The Permittee shall comply with the requirements of 40 CFR 264.53.

3. Amendments to Plan

The Permittee shall review and immediately amend, if necessary, the Contingency Plan, as required by 40 CFR 264.54. Such an amendment may require a permit modification in accordance with 40 CFR 270.42.

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.

I. AIR EMISSION STANDARDS

The Permittee shall follow the 40 CFR 264 Subparts BB and CC requirements for remediation operations and systems.

J. GENERAL CLOSURE REQUIREMENTS

This facility has no operating RCRA waste management units that will require closure as anticipated by 40 CFR 264 Subpart G. All clean-up, remediation, and post-closure activities are subject to the corrective action measures specified in Section III of this Permit.

K. COST ESTIMATE FOR FACILITY CLOSURE; FINANCIAL ASSURANCE; LIABILITY INSURANCE REQUIREMENTS

As a federally owned and operated facility, financial assurance for corrective action, and accompanying cost estimates, are not required. Should the facility change ownership to a nonfederal entity, both cost estimates and financial assurances will be required prior to approval of a permit transfer. [40 CFR 264 Subpart H]

SECTION III – CORRECTIVE ACTION

A. INTRODUCTION

On November 6, 1996, the United States Environmental Protection Agency (EPA) issued Final Administrative Order Docket No. RCRA-VI-002(h)-95-H (**Permit Attachment 3**), pursuant to Section 3008h of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. § 6928(h). The Unilateral Administrative Order (Order) specified the technical and legal requirement for Altus AFB to follow in performing corrective action. In response to the Order, Altus AFB completed activities under an Interim Measures phase of work to be performed, as mandated by Section IV of the Order.

Under the terms of Section IV of the Order, Altus AFB was required to complete the following actions:

1. Conduct interim measures, as necessary to control off-site migration of contaminated groundwater;
2. Conduct a RCRA Facility Investigation to determine the nature and extent of contamination resulting from historical facility operations;
3. Perform a Corrective Measures Study to evaluate various remedial alternatives; and
4. Submit to EPA a Corrective Measures Implementation Program Plan within 150 days of EPA's selection of the proposed corrective measure.

The RCRA Facility Investigation was performed from 1998 through 2002. Investigations performed as part of the RCRA Facility Investigation prompted interim corrective measures. These interim corrective measures included remediation of various solid waste management units (SWMUs), a pump and treat system for the large groundwater contaminant plume known as Spill Site (SS) 17, and the installation of a 4,800-foot bark mulch permeable reactive barrier (bio-mulch wall) designed to eliminate the off-site migration of contaminated groundwater from SS-17. Further investigations were requested by EPA to enhance data collected during the RCRA Facility Investigation. In 2006, EPA applied its newly developed, accelerated initiative, Corrective Action Strategy (CAS) to Altus AFB.

The selected remedy relies upon the attainment of specific clean-up goals and focuses on performance-based progression and continuity in meeting those goals. This section presents the specific requirements of the selected remedy and associated requirements for remedial operations.

Corrective Action for Releases:

Section 3004(u) of RCRA, as amended by the Hazardous and Solid Waste Amendments (HSWA), requires that permits issued after November 8, 1984, address corrective action for releases of hazardous waste or hazardous constituents from any SWMU at the facility, regardless of when the waste was placed in the unit.

The EPA Region 6 CAS is an alternate corrective action approach which has been adopted by the State of Oklahoma that can be implemented during any phase of corrective action. The Permittee shall use the CAS approach as the framework for corrective action and shall compare all contaminants in the soil and groundwater to the current EPA Regional Screening Levels for screening new releases. Screening should use the most conservative levels based on the chosen receptors or scenario, unless otherwise directed by DEQ.

B. CORRECTIVE ACTION USING THE CAS

This Permit utilizes the CAS Guidance Document developed by EPA Region 6. The CAS Guidance Document shall be utilized to the fullest extent practicable for planning and implementation of the corrective action. The CAS in this Permit shall not supersede existing Federal, State, and local regulations. The two primary objectives are: (1) to prioritize corrective action at the facility; and (2) to streamline corrective action administrative procedures, resulting in the protection of human health and the environment.

The CAS is a performance-based approach using the development of corrective action objectives from the CAS performance standards. The CAS is a risk management strategy that can be implemented during any phase of corrective action. Releases are screened using the current EPA Regional Screening Levels to assist in determining the priority of corrective action, and remedial alternatives are selected on the basis of their ability to achieve and maintain the established corrective action objectives (CAOs).

There is no one specific path through the CAS process. The CAS is a facility-wide approach, focusing on corrective action of releases that pose the greatest risk first. Screening releases will also enable some areas of interest to qualify for No Further Action (NFA) status; thus, resources can be used to best benefit the protection of human health and the environment. The traditional RCRA corrective action process and reports (i.e., RFAs, RFIs, CMSs, CMIs, etc.) are not elements of the CAS. However, the use of information and reports from the traditional corrective action process, if available, is encouraged, in addition to new site-specific information.

DEQ, through an agency-initiated permit modification, may remove the CAS as the means of facility-wide corrective action in the case of: (1) the failure of the Permittee to disclose information, adhere to agreed schedules, or show adequate progress; or (2) should an impasse occur between the Permittee and DEQ. DEQ will institute other means of corrective action (such as traditional corrective action) at the facility through modification of this Permit.

1. Performance Standards and Corrective Action Objectives (CAOs)

Expectations for the outcome of corrective action at a facility are established in the CAS by three performance standards (i.e. Source Control, Statutory and Regulatory, and Final Risk Goal), as defined in this Permit Condition. Through the application of the performance standards and screening with the current EPA Regional Screening Levels, the Permittee and DEQ shall determine whether a release must be addressed through corrective action, and whether implemented corrective actions are protective of human health and the environment.

The three CAS performance standards approved by DEQ are defined below. The order in which the performance standards are listed does not imply that one performance standard takes priority over another. CAOs are described under each performance standard. All CAOs must be achieved by the Permittee.

a. Source Control Performance Standard

Source control refers to the control of materials that include or contain hazardous wastes or hazardous constituents that act as a reservoir for migration of contamination to soil, sediment, groundwater, surface water or air, or as a source for direct exposure.

The facility must determine if source material is present. Removal, containment, and treatment, or a combination of the three, must be evaluated on a case-by-case basis. Controlling source material is a predominating issue in the CAS and must be addressed to ensure protectiveness over time.

CAO (SUBSURFACE SOIL AND GROUNDWATER): Altus AFB must remove or treat source material in subsurface soils and/or groundwater to the extent practicable. The facility must remove or treat source material in subsurface soils that could subsequently migrate to groundwater and attain a media-specific cleanup goal protective of groundwater.

Performance Metric - Subsurface Soil: Because the CAO for groundwater is to contain the contaminant plumes, source removal activities must target the removal of chlorinated VOCs present in soils at concentrations that could result in noncompliance at groundwater and surface water points of compliance (POC). Cleanup goals for subsurface soil contaminants may vary across the Facility as a function of chemical- and location-specific parameters. Altus AFB is required to submit written justification for proposed subsurface soil cleanup goals to DEQ for review and approval. Confirmation sampling data will confirm that appropriate cleanup levels are attained. Residual contamination left in place above cleanup levels must be treated, removed, or contained. Preference will be given to treatment or removal remedies over containment, if practicable.

Performance Metric - Groundwater: Altus AFB must annually evaluate groundwater data to present a source area assessment in annual performance monitoring reports and identify any potential new or persistent DNAPL source areas. If, upon review of this assessment, Altus AFB determines that the source area(s) may be present, Altus AFB will provide written notification to DEQ. In accordance with the schedule established in the written notification, Altus AFB will submit to DEQ a workplan to identify and evaluate suspected source areas and/or for the removal, treatment or

containment of source areas. Preference will be given to treatment or removal remedies over containment, if practicable.

b. Statutory and Regulatory Performance Standard

Altus AFB is required to identify applicable statutory and regulatory requirements (Federal, State, and local) that may dictate media-specific contaminant levels (e.g., maximum contaminant levels (MCLs) in drinking water) that must be achieved. Achievement of MCLs and other applicable statutory and regulatory requirements is a performance standard for the Permittee.

CAO (GROUNDWATER): Altus AFB must contain the plume. Performance monitoring will provide sampling analytical data that reports the concentrations of COCs in groundwater and surface water. These data form the primary basis for evaluating compliance with the CAO. The POC at each GWMU is defined as the most downgradient boundary of the applicable on-base or off-base properties described by the legal descriptions. Restrictive (Environmental) Covenant and Easement Agreements are presently in place for four (4) off-base properties; enabling the establishment of the POC at the down-gradient extent of these properties. Land use controls (LUC) for these properties were recorded at the Jackson County, Oklahoma Courthouse, as will be any additional properties that may become subject to LUCs.

Performance Metric - Point of Compliance Monitoring: Measured groundwater sample concentrations of COCs exceeding MCLs at any POC monitoring well shall require actuation of the Contingency Plan by Altus AFB. The Contingency Plan is outlined in **Section 5.0** of the *CMI Work Plan (Permit Attachment 1)* and Permit Section III.M. Altus AFB must notify DEQ when the Contingency Plan is activated. Notification from DEQ is not required to trigger the Contingency Plan.

Performance Metric - Plume Stability Assessment: In the absence of reliable sentinel well trigger values, demonstration of plume stability is an essential measure of compliance with the CAO for groundwater and is intended to preclude non-compliance at POC monitoring wells. Plume stability assessment methods (e.g., single well trend statistics, plume overlay maps, numerical groundwater modeling, etc.) are summarized in **Section 3.0** of the *CMI Work Plan (Permit Attachment 1)* along with associated annual and triennial reporting requirements. Reporting requirements are also outlined in Permit Sections III.C, III.E and III.L. Based on the review of the annual assessment or triennial performance review, if Altus AFB concludes that a plume is not stable or shrinking, written notice should be provided to DEQ. In accordance with the schedule established in the written notice, the Permittee shall submit a workplan proposing corrective actions to restore plume stability.

Performance Metric - Remedy-Specific Monitoring: Previously installed or potential future treatment technologies (e.g., biowalls, bioreactors, subsurface injections, etc.) are integral components of the selected remedy to achieve the CAOs to treat source areas and to contain the plumes. Altus AFB assesses treatment technology performance by implementing remedy-specific monitoring consistent with previously issued remedy specific monitoring work plans, Operations and Maintenance (O&M) plans, and monitoring reports (e.g., Final Source Area Reduction Report, AECOM, 2011). Collected data and documentation must be sufficient to demonstrate the degree and sustainability of dechlorination pathways occurring within the treatment zones. Recommendations for rejuvenation or other optimization events will coincide with any assessment demonstrating incomplete or otherwise suboptimal dechlorination. Any newly installed remedies will be subject to remedy-specific monitoring and O&M requirements.

Performance Metric - Land Use Controls: Institutional controls and/or engineering controls for all on-base properties and off-base properties subject to LUCs will be maintained and monitored consistent with the Land Use Control Plan in **Section 6.0** of the *CMI Work Plan (Permit Attachment 1)*. The Permittee will evaluate compliance with LUCs annually and submit completed inspection checklists to DEQ. The adequacy and effectiveness of the LUCs, and engineering mitigation controls for indoor air, will also be reviewed and documented as part of three-year performance reviews. If Altus AFB identifies a failure of an institutional control or engineering mitigation control for indoor air, Altus AFB will implement the Contingency Plan as described in **Section 5.0** of the *CMI Work Plan (Permit Attachment 1)*. Altus AFB must notify DEQ when the Contingency Plan is implemented.

CAO (SURFACE WATER): The corrective action objective for surface water is to monitor contaminant levels in surface water features associated with the GWUMs to ensure protection of potential human and ecological receptors. If sampling results detect elevated contaminant levels, then the appropriate response will be implemented, as outlined in the Contingency Plan in **Section 5.0** of the *CMI Work Plan (Permit Attachment 1)* and Permit Section III.M.

Performance Metric - Point of Compliance Monitoring: Measured surface water sample concentrations of COCs exceeding MCLs at any surface water POC sampling location will require actuation of the Contingency Plan.

Performance Metric - Assessment of Surface Water Use: Surface water features associated with the GWUMs are not known to be used for recreation, irrigation, stock watering or drinking water; however, there are no restrictions limiting access to and use of surface water potentially containing COCs, including both on- and off-base properties. As part of the

annual LUC inspections, Altus AFB will evaluate and document the potential for surface water use on off-base properties (e.g., irrigation, stock watering, etc.). As part of the annual LUC inspections, DEQ may require additional surface water sampling at locations upstream of the surface water POC sampling locations. DEQ will notify Altus AFB in writing of additional surface water sample requirements.

c. Final Risk Goal Performance Standard

The final risk goal is the level of protection to be achieved and maintained by the Permittee. The final risk goal shall be based on site-specific issues including land use, special subpopulations, contaminant concentrations based on acceptable risk, location at which the levels are measured, and the remediation time frame.

CAO (SURFACE SOIL): For the protection of human health from exposures of residual COCs in surface soils, DEQ requires media-specific cleanup levels to attain at any identified SWMU or AOC area. COCs in surface soils (0 to 2 feet bgs) must be remediated to levels that do not exceed a cumulative human health risk level of $1 \text{ E-}05$ (1 in 100,000 risk of developing cancer) for an industrial outdoor worker exposure scenario. Non-carcinogenic COCs must be remediated to levels that do not exceed a hazard index of 1 for an industrial outdoor worker.

CAO (SUBSURFACE SOIL): Subsurface soils (more than 2 feet bgs) will be remediated as necessary to ensure that all established risk goals are met. All remedial goals will be preserved by engineering and institutional controls as appropriate. This determination of cleanup goals for subsurface soils is widely used and is based on the water/soil partitioning theory. This theory is conservative and assumes that contaminated soil and groundwater are in direct contact. The approach predicts the maximum amount of contamination that may remain in soil so that leachate from the contaminated soil will not violate groundwater cleanup standards. LUCs protective of on-base construction workers are described in the Land Use Control Plan, in **Section 6.0** of the *CMI Work Plan (Permit Attachment 1)*.

Performance Metrics - All Applicable Media: Sampling data from investigations and/or corrective actions will confirm attainment of appropriate cleanup levels for all COCs. Confirmation sampling data from corrective actions at sites are used to confirm attainment of appropriate cleanup levels.

2. Corrective Action for Releases Beyond Facility Boundary

Section 3004(v) of RCRA, as amended by HSWA, requires corrective actions beyond the facility property boundary, where necessary to protect human health and the environment, unless the Permittee demonstrates 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 all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. This may include future AOCs off-site.

C. CORRECTIVE MEASURES IMPLEMENTATION (CMI) REPORTING

The Permittee shall submit signed reports of all activities conducted pursuant to the provisions of this Permit. These reports are considered the implementation of corrective measures, which is concurrent to risk management described in the CAS.

1. The Annual Performance Monitoring Report will be due by October 31 of each year.
2. CMI performance reviews of GWMU 1, 2, 3 and 4 plumes will be conducted every 3 years, and the 3-Year CMI Performance Review Report will be submitted with the Annual Performance Monitoring Report.
3. Copies of other reports relating to or having bearing upon the corrective action work (e.g., inspection reports), drilling logs and laboratory data shall be made available to DEQ.
4. In addition to the written reports required in this Section, at the request of DEQ, the Permittee shall provide status review through briefings with DEQ.
5. Within sixty (60) days after receipt of DEQ's comments on any of the Draft CMI deliverables, the Permittee shall submit revised Final CMI deliverables which address all DEQ comments to the satisfaction of DEQ.

D. SPECIFIC CONDITION – CONCEPTUAL SITE MODEL (CSM)

The CSM identifies the known or potential constituent sources, routes of constituent migration, exposure media, exposure points and pathways, receptors and source media to be evaluated. The CSM shall be updated by the facility as new information is gathered during investigations. The Permittee shall evaluate the CSM on at least an annual basis for necessary changes and inform DEQ in writing of its recommendations. Additions/revisions to the CSM shall be documented in the Performance Review reports. The CSM shall be used by the facility to make decisions regarding risk management options, ecological risk, and any needed changes to the remedy applications as site conditions change or when deemed appropriate by the DEQ. The CSM is divided into Profiles as listed below.

1. Facility Profile

The Facility Profile summarizes the regional location, pertinent boundary features, general facility structures; process areas, and locations of solid waste management units or other potential sources of contaminant migration from the routine and systematic releases of hazardous constituents to the environment (e.g., truck or railcar loading/unloading areas). The Permittee shall also include historical features that may be potential release areas because of past waste management practices. The Facility Profile shall include:

- a. Map(s) and other documents depicting the following information which needs to be of sufficient detail and accuracy to locate and report all current site conditions:
 - i. General geographic location;
 - ii. Property lines with owners of all adjacent property clearly indicated;
 - iii. Facility structures, process areas and maintenance areas;
 - iv. Any other potential release areas shall be delineated; and
 - v. Locations of historical features that may be potential release areas or any areas of past solid and hazardous waste generation, treatment, storage or disposal activities.
- b. The Facility Profile shall also include a description of ownership and operation of the facility.
- c. Approximate dates or periods of past waste spills, identification of the materials spilled, the amount spilled, the location where spilled, and a description of the response actions conducted (local, state, federal, or private party response units), including any inspection reports or technical reports generated as a result of the response.

2. Land Use and Exposure Profile

The Land Use and Exposure Profile includes surrounding land uses, resource use locations (water supply wells, surface water intakes, etc.), beneficial resource determinations, natural resources (wetlands, etc.) sensitive subpopulation types and locations (schools, hospitals, nursing homes, day care centers, etc.), applicable exposure scenarios, and applicable exposure pathways identifying the specific sources, releases, migration mechanisms, exposure media, exposure routes and receptors. The Land Use and Exposure Profile shall include:

- a. Map(s) and other documents depicting the following information (all maps shall be consistent with the requirements set forth in 40 CFR 270 Subpart B and be of sufficient detail and accuracy to locate and report all current site conditions):
 - i. Surrounding land uses, resource use locations, and natural resources/wetlands;
 - ii. Locations of sensitive subpopulations; and
 - iii. An exposure pathway flowchart which outlines sources, migration pathways, exposure media and potential receptors.

3. Physical Profile

The Physical Profile describes the factors that may affect releases, fate and transport, and receptors, including; topography, surface water features, geology, and hydrogeology. The Physical Profile shall include:

- a. Map(s) and other documents depicting the following information, and shall be of sufficient detail and accuracy to locate and report all current site conditions:
 - i. Topographic maps with a contour interval of five (5) or ten (10) feet, a scale of one inch to 100 feet (1:100), including hills, gradients, and surface vegetation or pavement;
 - ii. Surface water features including routes of all drainage ditches, waterways, direction of flow, and how they migrate to other surface water bodies such as canals and lakes;
 - iii. Regional geology including faulting and recharge areas, as well as local geology depicting surface features such as soil types, outcrops, faulting, and other surface features;
 - iv. Subsurface geology including structure, stratigraphy; continuity (locations of facies changes, if known), faulting and other characteristics;
 - v. Maps with hydrogeologic information identifying water-bearing zones, hydrologic parameters such as transmissivity, and conductivity. Also locations and thicknesses of aquitards or impermeable strata; and
 - vi. Locations of soil borings, and production and groundwater monitoring wells, including well log information, and construction of cross-sections which correlate substrata. Wells shall be clearly labeled with ground and top of casing elevations.

4. Release Profile

The Release Profile describes the known extent of contaminants in the environment, including sources, COC, areas of investigations, distribution and magnitude of known COCs with corresponding sampling locations, and results of fate and transport modeling depicting potential future extent/magnitude of COCs. The Release Profile shall include:

- a. Map(s) and other documents depicting the following information and be of sufficient detail and accuracy to locate and report all current site conditions:
 - i. Estimations of source concentrations, exposure concentrations, and compliance concentrations for each affected media;
 - ii. Isopleth maps depicting lateral extent and concentrations of COCs;
 - iii. Results of fate and transport modeling showing potential exposure concentrations and locations; and

- iv. Locations of potential sources including past or present waste units or disposal areas and all SWMUs.
- b. Table(s) depicting the following information. Unit/disposal area characteristics, including but not limited to: location of unit/disposal area; type of unit/disposal area; design features; operating practices (past and present); period of operation; age of unit/disposal area; general physical condition; and method used to close the unit/disposal area.
- c. Table(s) depicting waste characteristics, including but not limited to type of waste placed in the unit (hazardous classification, quantity, chemical composition), physical and chemical characteristics (physical form, description, temperature, pH, general chemical class, molecular weight, density, boiling point, viscosity, solubility in water, solubility in solvents, cohesiveness, vapor pressure); and migration and dispersal characteristics of the waste (sorption coefficients, biodegradability, photodegradation rates, hydrolysis rates, chemical transformations).

5. Ecological Profile

The Ecological Profile describes the physical relationship between the developed and undeveloped portions of the facility, the use and level of disturbance of the undeveloped property, and the type of ecological receptors present in relation to completed exposure pathways. When compiling data for the Ecological Profile; current and reasonably foreseeable future impacts to receptors and/or their habitats shall be considered. The Ecological Profile shall include:

- a. A historical outline and description of the developed property on the facility, including structures, process areas, waste management units, and property boundaries.
- b. A history and description of the undeveloped property, including habitat type (wetland, grassy area, forest, ponds, etc.). Include a description of the primary use, degree and nature of any disturbance, along with proximity to drainage ditches, waterways, and landfill areas.
- c. A description of the site receptors in relation to habitat type, including endangered or protected species, mammals, birds, fish, etc.
- d. A description of the relationship between release areas and habitat areas, specifically relating chemicals of potential ecological concern (COPEC) to ecological receptors.

- e. An ecological checklist shall be used to determine if a screening level ecological Risk Assessment (ERA) is warranted.

6. Risk Management Profile

The Risk Management Profile describes how each release area in the RCRA corrective action domains at the facility will be managed for the protection of human health and the environment. The Risk Management Profile shall include:

- a. A list of identified site-wide data gaps for further investigation.
- b. Documentation of all Interim measures which have been or are being undertaken for environmental remediation at the facility, including those under State or Federal compliance orders, other than those specified in the Permit. This documentation shall include the objectives of the interim measures and describe how the measures are mitigating a potential threat to human health or the environment and/or are consistent with and integrated into requirements for a long-term remedial solution.

E. SUBMISSIONS/AGENCY APPROVAL/ADDITIONAL WORK

1. Within thirty (30) days of approval by DEQ of any work plan(s), the Permittee shall commence work and implement the tasks required by the work plan(s), in accordance with the standards, specifications, and schedule stated in the work plan as approved by DEQ.
2. The Permittee shall provide DEQ with the appropriate semi-annual progress reports discussed in Permit Section III.M.
3. DEQ will review all draft and final reports or work plans, as required by the Permit, and notify the Permittee in writing of DEQ's approval/disapproval of the deliverables, or any part thereof. Unless a different response time is stated, within sixty (60) days of receipt of DEQ's disapproval of any deliverable, the Permittee shall address the deficiencies to DEQ's satisfaction and submit a revised report.
4. Two copies of all deliverables shall be delivered to DEQ Land Protection Division. One copy shall be sent to the EPA project manager. The Permittee shall also submit to DEQ a copy of all reports on a compact disc (CD) or Microsoft Windows-compatible electronic storage device.
5. In all instances which this permit requires written submissions to DEQ, each submission must be accompanied by the following certification signed by an executive officer or a duly authorized representative:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that

qualified personnel properly gather and evaluate the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

For the purpose of the certification, a principal executive officer includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency. A person is a duly authorized representative only if: (i) the authorization is made in writing by a person described in paragraph (a) of 40 CFR 270.11; (ii) the authorization specifies either an individual or a position having responsibility for overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and (iii) the written authorization is submitted to the Director.

6. All work performed for this Permit shall be under the direction and supervision of an engineer or scientist with expertise in hazardous waste site remediation and familiar with the Altus AFB site cleanup. Within 30 days of entering into contractual or sub-contractual arrangements, the Permittee shall notify DEQ in writing of the name, title, and qualifications of the engineer or scientist.
7. DEQ may determine, or the Permittee may propose, that certain tasks, including investigatory work, engineering evaluation, or procedure/methodology modifications, are necessary in addition to or in lieu of the tasks included in any DEQ-approved work plan, when such additional work is necessary to meet the CAOs described in Permit Condition III.B.1. If DEQ determines that the Permittee shall perform additional work, DEQ will notify the Permittee in writing and specify the basis for the determination that the additional work is necessary. Within sixty (60) days after the receipt of such determination, the Permittee shall have the opportunity to meet or confer with DEQ to discuss the additional work. If required by DEQ, the Permittee shall submit for DEQ approval, a work plan for the additional work. DEQ will specify the contents of such work plan. Such work plan shall be submitted within sixty (60) days of receipt of DEQ's determination that additional work is necessary, or according to an alternative schedule established by DEQ. Upon approval of a work plan by DEQ, the Permittee shall implement it in accordance with the schedule and provisions contained therein.

F. NOTIFICATION REQUIREMENTS FOR AND ASSESSMENT OF NEWLY-IDENTIFIED SWMUS AND POTENTIAL AOCs

1. The Permittee shall notify DEQ, in writing, of any newly-identified SWMU(s) and potential AOC(s) (i.e., a unit or area not specifically identified during previous corrective action assessments, RFA, etc.), discovered during groundwater monitoring, field

investigations, environmental audits, or other means, no later than thirty (30) calendar days after discovery. Also, the Permittee shall obtain prior approval from DEQ for any proposed construction of land-based SWMUs (including but not limited to, surface impoundments, waste piles, landfills, land treatment units) and proposed SWMUs where any release of hazardous constituents may be difficult to identify (e.g., underground storage tanks). The notification for newly-identified SWMUs shall include the following items, to the extent available:

- a. The location of the newly-identified SWMU or potential AOC on the topographic map required under 40 CFR Section 270.14(b)(19). Indicate all existing units (in relation to other SWMUs);
 - b. The type and function of the unit;
 - c. The general dimensions, capacities, and structural description of the unit (supply any available drawings);
 - d. The period during which the unit was operated;
 - e. Specific information, to the extent available, on all wastes that have been or are being managed at the SWMU or potential AOC; and
 - f. Results of any sampling and analysis required for the purpose of determining whether releases of hazardous waste including hazardous constituents have occurred, are occurring, or are likely to occur from the SWMU, or whether the AOC should be considered a SWMU.
2. Based upon the results of this Notification, DEQ will designate the newly-identified AOC(s). Further, DEQ will determine the need for further investigations or corrective measures at any newly identified SWMU(s) or AOC(s). If DEQ determines that such investigations are needed, DEQ may require the Permittee to prepare a plan for such investigations, according to the Corrective Action Strategy (CAS) work plan requirements as described in the EPA Region 6 CAS.

G. NOTIFICATION REQUIREMENTS FOR NEWLY-DISCOVERED RELEASES AT SWMU(S) AND AOC(S)

The Permittee shall notify DEQ in writing, no later than fifteen (15) calendar days after discovery of any release(s) from a SWMU or AOC of hazardous waste or hazardous constituents identified during the course of groundwater monitoring, field investigation, environmental auditing, or other means. Such newly-discovered releases may be from newly-identified SWMUs or AOCs, newly-constructed SWMUs, or from SWMUs or AOCs for which, based on the findings of the CSM, or investigation of an AOC(s), DEQ had previously determined no further investigation was necessary. The notification shall include information concerning actual and/or potential impacts

beyond the facility boundary and on human health and the environment, if such information is available at the time of the notification. DEQ may require further investigation and/or interim measures for the newly-identified release(s), and may require the Permittee to prepare a plan for the investigation and/or interim measure. The plan will be reviewed for approval as part of a new CAS Work Plan. The Permit will be modified to incorporate the investigation, if required.

H. DETERMINATION OF NO FURTHER ACTION (NFA)

1. Based on the results of the site investigations, screening, risk evaluations, and risk management activities, the Permittee may submit an application to DEQ for a Class 2 permit modification under 40 CFR 270.42, Appendix I, C.8.b. to terminate further corrective action for a specific unit. This permit modification application must contain information demonstrating that there are no releases of hazardous constituents from a particular SWMU at the facility that pose threats to human health and/or the environment, as well as additional information required under 40 CFR 270.42.

If, based upon review of the Permittee's request for a permit modification, the results of the site investigations, and other information, including comments received during the sixty-day (60-day) public comment period required for Class 2 permit modifications, DEQ determines that releases or suspected releases which were investigated either are non-existent or do not pose a threat to human health and/or the environment, DEQ may grant the requested modification.

2. If necessary to protect human health and/or the environment, a determination of NFA shall not preclude DEQ from requiring continued monitoring of air, soil, groundwater, or surface water, when site-specific circumstances indicate that releases of hazardous waste or hazardous constituents are likely to occur.
3. A determination of NFA shall not preclude DEQ from requiring further investigations, studies, or remediation at a later date, if new information or subsequent analysis indicates a release or likelihood of a release from a SWMU at the facility that is likely to pose a threat to human health and/or the environment. In such a case, DEQ shall initiate a modification to the Permit according to 40 CFR 270.41.

I. CMI CONTINGENCY PLAN

The CMI Contingency Plan describes the methodology that will be implemented to determine whether any portion of the final remedy, including implemented remedial actions, LUCs, and engineering mitigation controls for indoor air, are not effective for achievement of the final CAOs for Altus AFB, thereby, potentially requiring the implementation of a response action. The CMI Contingency Plan describes the methodology to be implemented in response to a potential new or undocumented release at Altus AFB. In addition, the CMI Contingency Plan identifies the aspects of the final remedy that will be monitored and under what conditions a corrective measure(s) will be implemented to protect potential human and/or ecological receptors. The full CMI Contingency

Plan is included in **Section 5** of the *CMI Work Plan (Permit Attachment 1)*. The Contingency Plan for the groundwater management units and surface water is summarized below:

1. Groundwater Management Units

- a. If COCs exceed MCLs at a POC well, Altus AFB will:
 - i. Notify DEQ within seven (7) days of receiving the results; and
 - ii. Resample the pertinent POC well(s).
- b. If the first resampling of the POC well(s) exceeds MCLs, Altus AFB will:
 - i. Notify DEQ within seven (7) days of receiving the results; and
 - ii. Resample the pertinent POC well(s).
- c. If the confirmation sample of the POC well(s) exceeds the MCL, Altus AFB will:
 - i. Notify DEQ within seven (7) days of receiving the results;
 - ii. Meet with DEQ within seven (7) days of the notification to identify what necessary corrective measure(s) will be implemented, the necessary requirements for measuring and evaluating remedy effectiveness, and a specific timeframe allowed for effectively demonstrating that corrective measures are working; and
 - iii. Submit a workplan to DEQ detailing the implementation of the identified corrective measure(s) within sixty (60) days of the meeting.

2. Surface Water

- a. If COCs exceed MCLs at a surface water sampling point(s), Altus AFB will:
 - i. Notify DEQ within seven (7) days of receiving the results; and
 - ii. Resample the pertinent surface water sampling point(s).
- b. If the first resampling of the surface water sampling point(s) exceeds MCLs, Altus AFB will:
 - i. Notify DEQ within seven (7) days of receiving the results; and

- ii. Resample the pertinent surface water sampling point(s).
- c. If the confirmation sample of the surface water sampling point(s) exceeds the MCL, Altus AFB will:
 - i. Notify DEQ within seven (7) days of receiving the results;
 - ii. Meet with DEQ within seven (7) days of the notification to identify what necessary corrective measure(s) will be implemented; and
 - iii. Submit a workplan to DEQ detailing the implementation of the identified corrective measure(s) within sixty (60) days of the meeting.

J. STANDARD CONDITIONS

1. Dust Suppression

Pursuant to 40 CFR 266.23(b), and the Toxic Substances Control Act, the Permittee shall not use waste or used oil or any other material which is contaminated with dioxin, polychlorinated biphenyls (PCBs), or any other hazardous waste (other than a waste identified solely on the basis of ignitability), for dust suppression or road treatment.

2. Permit Modification

- a. DEQ Initiated Modifications: If at any time for any of the reasons specified in 40 CFR 270.41, DEQ determines that modification of this Permit is necessary, DEQ may initiate permit modification proceedings in accordance with the regulations set forth at 40 CFR 270.41.
- b. Permittee Initiated Modifications: The Permittee may initiate permit modifications, where appropriate, in accordance with the regulations set forth at 40 CFR 270.42. All applicable requirements and procedures as specified in 40 CFR 270.42 shall be followed by Permittee in initiating such proceedings.
- c. Modifications of Corrective Action Schedules of Compliance (CASC):
 - i. The Permittee shall adhere to CASCs of this Permit. If at any time the Permittee determines that such schedules cannot be met, the Permittee shall, within fifteen (15) days of such determination, notify DEQ and submit a request for a permit modification under 40 CFR 270.42, with a justification as to why the current CASC cannot be met.

- ii. If DEQ determines that a modification of the CASC is required, the following procedure will apply. CASC Modifications made under this procedure are not subject to administrative appeal.
- iii. DEQ will notify the Permittee in writing of the proposed modification. Such notice will:
 - a) Describe the exact changes to be made to the permit conditions;
 - b) Provide an explanation of why the modification is needed;
 - c) Provide notification of the date by which comments on the proposed modification must be received. Such date will not be less than twenty (20) days from the date the notice of proposed modification is received by the Permittee, or after the public notice is published;
 - d) Provide notification that supporting documentation or data may be available for inspection at DEQ; and
 - e) Include the name and address of a representative of DEQ to whom comments may be sent.
- iv. The Permittee shall:
 - a) Publish a notice of the proposed modification in a newspaper distributed in the locality of the facility;
 - b) Mail a notice of the proposed modification to all persons on the facility mailing list maintained according to 40 CFR 124.10(c)(1);
 - c) For facilities which have established an information repository, the Permittee shall place a notification of the proposed modification in the information repository concurrently with actions taken under those items.
- v. DEQ's Decision Regarding Modification
 - a) If DEQ receives no written comment on the proposed modification, the modification shall become effective five (5) calendar days after the close of the comment period. DEQ shall:
 - i) Notify the Permittee in writing of the final decision.
 - ii) Notify individuals on the facility mailing list in writing that the modification has become effective and shall place a copy of the modified permit in the information repository, if a repository is required for the facility.

- b) If DEQ receives written comment on the proposed modification, DEQ shall make a final determination concerning the modification after the end of the comment period. DEQ shall:
 - i) Notify the Permittee in writing of the final decision.
 - ii) Provide notice of the final modification decision in a locally distributed newspaper.

3. Permit Review

This Permit may be reviewed by DEQ five (5) years after the date of Permit issuance and may be modified as necessary. Nothing in this section shall preclude DEQ from reviewing and modifying the Permit at any time during its term.

4. Compliance with Permit

Compliance with a RCRA permit during its term constitutes compliance, for purposes of enforcement, with subtitle C of RCRA except for those requirements not included in the permit which:

- a. Become effective by statute;
- b. Are promulgated under 40 CFR 268 restricting the placement of hazardous wastes in or on the land; or
- c. Are promulgated under 40 CFR 264 regarding leak detection systems for new and replacement surface impoundment, waste pile, and landfill units, and latera expansions of surface impoundment, waste pile, and landfill units. The leak detection system requirements include double liners, CQA programs, monitoring action leakage rates, and response action plans, and will be implemented through the procedures of 40 CFR 270.42 Class 1 permit modifications.

5. Specific Waste Ban

- a. The Permittee shall not place in any land disposal unit the wastes specified in 40 CFR 268 after the effective date of the prohibition unless the Administrator has established disposal or treatment standards for the hazardous waste and the Permittee meets such standards and other applicable conditions of this Permit.
- b. The Permittee may store wastes restricted under 40 CFR 268 solely for the purpose of accumulating quantities necessary to facilitate proper recovery, treatment, or disposal provided that it meets the requirements of 40 CFR 268.50(a)(2) including, but not limited to, clearly marking each tank or container.

- c. The Permittee is required to comply with all requirements of 40 CFR 268.7 as amended. Changes to the waste analysis plan will be considered permit modifications at the request of the Permittee, pursuant to 40 CFR 270.42.
- d. The Permittee shall perform a waste analysis at least annually or when a process changes, to determine whether the waste meets applicable treatment standards. Results shall be maintained in the operating record.
- e. The Permittee must comply with requirements restricting placement of hazardous wastes in or on land which become effective by statute or promulgated under Part 268, regardless of requirements in the Permit. Failure to comply with the regulations may subject the Permittee to enforcement action under Section 3008 of RCRA.

6. Information Submittal

Failure to comply with any condition of the Permit, including information submittal, constitutes a violation of the Permit and is grounds for enforcement action, permit amendment, termination, revocation, suspension, or denial of permit renewal application. Falsification of any submitted information is grounds for termination of this Permit (40 CFR 270.43) or enforcement action as deemed appropriate. The Permittee shall ensure that all plans, reports, notifications, and other submissions to DEQ required in this Permit are signed and certified in accordance with 40 CFR 270.11. All copies of these plans, reports, notifications, or other submissions shall be submitted to DEQ by Certified Mail or hand delivered to:

Chief Engineer
Land Protection Division
Oklahoma Department of Environmental Quality
707 North Robinson, P.O. Box 1677
Oklahoma City, Oklahoma 73101-1677

7. Plans and Schedules Incorporation into Permit

All plans and schedules required by this Permit are, upon approval by DEQ, incorporated into this Permit by reference and become an enforceable part of this Permit. Since required items are essential elements of this Permit, failure to submit any of the required items or submission of inadequate or insufficient information may subject the Permittee to enforcement action under Section 3008 of RCRA which may include fines, suspension, or revocation of the Permit.

Any noncompliance with approved plans and schedules shall be termed noncompliance with this Permit. Written requests for extensions of due dates for submittals may be granted by DEQ, for good cause shown, on a case-by-case basis.

If DEQ determines that actions beyond those provided for, or changes to what is stated herein, are warranted, DEQ may modify this Permit as described by 40 CFR 270.41.

8. Data Retention

All raw data, such as laboratory reports, drilling logs, bench-scale or pilot-scale data, and other supporting information gathered or generated during activities undertaken pursuant to this Permit shall be stored on electronically scanned media and, upon request from DEQ, shall be made available for review within ten (10) days.

9. Management of Wastes

All solid wastes which are managed pursuant to a remedial measure taken under the corrective action process or as an interim measure addressing a release or the threat of a release from a solid waste management unit shall be managed in a manner protective of human health and the environment and in compliance with all applicable Federal, State and local requirements. Approval of units for managing wastes and conditions for operating the units, if approved, shall be granted through the permitting process.

K. CORRECTIVE ACTION FOR NEWLY DISCOVERED RELEASES

1. Corrective Action for Newly Discovered Releases: Section 3004(u) of RCRA, as amended by HSWA, and 40 CFR 264.101, require that permits issued after November 8, 1984, address corrective action for releases of hazardous waste or hazardous constituents from any SWMU at the facility, regardless of when the waste was placed in the unit.

2. Action Levels

- a. Applicability - The concept of action levels, described in the RFI guidance document shall be used by the Permittee to determine the need for further corrective actions under this Permit. The Permittee shall conduct a CMS whenever concentrations of hazardous constituents in groundwater, surface water, soils, or air exceed action levels for any environmental medium; or when DEQ determines that concentrations of contaminants, even if below action levels, present a threat to human health or the environment. The concept of action levels is not the same as cleanup levels, although in some cases a final cleanup level may be set to equal the action level.

3. Risk Assessment

- a. The Permittee shall conduct human health and ecological risk assessments as necessary for the protection of human health and the environment. These risk assessments shall be used to establish baseline risk at a site and/or to derive final or interim cleanup levels at the site. These risk assessments, if necessary, shall be performed concurrently with the corrective action activities specified in this Permit.
- b. The Permittee shall utilize, but not be limited to, the following EPA documents and publications: "Compendium of ORD and OSWER Documents Relevant to RCRA Corrective Action" (EPA530-B-92-003, April 1992); "Ecological Assessments of Hazardous Waste Sites, A Field and Laboratory Reference Document" (EPA1600/3-89/013, March 1989); "ECO Update, Ecological Assessment of Superfund Sites: An Overview" (Publication 9345.0-051, Vol. 1, No.2, December 1991); and "ECO Update, Developing A Work Scope for Ecological Assessments" (Publication 9345.0-051, Vol. 1, No.4, May 1992); including any subsequent revisions.
 - i. Baseline Risk Assessments - Baseline risk assessments, if required, shall be used to evaluate the risks posed by contaminants at a site prior to the beginning of any corrective actions. This type of risk assessment shall be used in certain circumstances instead of action levels to determine the need for remedial action.
 - ii. Although the action level concept shall serve as a trigger for a CMS, certain exceptions will apply, but not be limited to the following circumstances. In cases where the applicable action levels are not protective enough of sensitive environmental systems, such as wetlands, estuaries, and habitats of endangered or threatened species, the Permittee shall conduct a baseline environmental risk assessment. In cases where there are confirmed releases to groundwater, surface water, air, or sediments, a baseline risk assessment shall be required to determine the need for stabilization/interim measures, especially where health advisories have been issued by local/state governments. In addition, action levels may be inappropriate at a site where there are multiple contaminants or where leaching from contaminated soils into groundwater pose greater risk than ingestion of the soils.
 - iii. If an action level has been exceeded, for any of the environmental media of concern, at any time during the corrective action activities required by this Permit, the Permittee may be required to conduct a risk assessment to determine risks to human health and the environment and the necessity to perform interim measures. Risk assessments to determine final cleanup levels or to be used in justifying no further action determinations shall be

conducted only after the Permittee has determined the full vertical and horizontal extent of contamination from each SWMU or groups of SWMUs specified in this Permit.

- c. Risk Assessments for Deriving Cleanup Levels - Risk assessments, if required, may also be used as a starting point for cleanup goals, in addition to the final cleanup level.

DEQ intends to review risk assessments as part of the CMS Phase of the corrective action activities specified in this Permit in deriving final cleanup goals, but only after the Permittee has determined the full vertical and horizontal extent of contamination from each SWMU or groups of SWMUs specified in this Permit.

- d. Corrective Action for Releases Beyond Facility Boundary: Section 3004(v) of RCRA as amended by HSWA, and Federal regulations promulgated as 40 CFR 264.101(c), require corrective actions beyond the facility property boundary, where necessary to protect human health and the environment, unless the Permittee demonstrates 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 all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied.

4. Dispute Resolution

- a. The parties shall use their best efforts to informally and in good faith resolve all disputes or differences of opinion. If, however, disputes arise concerning the corrective action which the parties are unable to resolve informally, the following procedures shall apply. If Permittee's dispute concerns its inability to meet a specified deadline, then Permittee is obligated to advise DEQ of the issue at least thirty (30) days in advance of the deadline.
- b. DEQ shall provide Permittee written notice of its disapproval or modification of any interim submission under HSWA; including, but not limited to, implementation of work plans, approval of documents, scheduling of any work, or selection, performance, or completion of any corrective action. The written notice of disapproval or modification shall set forth the reasons for the disapproval or modification. If the Permittee disagrees, in whole or in part, with any such written notice, the Permittee shall notify DEQ in writing, within ten (10) days of receipt of the written notice. The Permittee and DEQ shall use their best efforts to informally and in good faith resolve the dispute in a timely manner. The Permittee is entitled to meet with DEQ in office or by teleconference, if it so desires, in order to resolve the dispute

- c. If Permittee and DEQ are unable to resolve the dispute, the Permittee may request a final decision by the Director of the Land Protection Division. Within thirty (30) days of receipt of DEQ's written notice, the Permittee shall submit to Director of the Land Protection Division, a written statement of its arguments and explanations of its position. The written statement should include, at a minimum, the specific points of dispute, the position the Permittee maintains should be adopted as consistent with the Permit requirements and the basis therefore, any matters which it considers necessary for proper determination of the dispute, and whether the Permittee requests an informal conference in front of the permit approval authority. The Permittee's failure to follow the procedures set forth in this paragraph will constitute a waiver of its right to further consideration of the dispute.
- d. The Director of the Land Protection Division, at his/her discretion, will determine whether an informal conference, if requested by the Permittee, will be held.
- e. If an informal conference is convened, DEQ shall consider the written position of the Permittee and the oral arguments and shall provide a written statement of its decision based on the record. This statement shall be considered to be incorporated as an enforceable part of the Permit. The written statement shall respond to the Permittee's arguments and shall set forth the reasons for DEQ's final decision. Such decision shall be the final resolution of the dispute and shall be implemented immediately by the Permittee according to the schedule contained therein.
- f. Notwithstanding the invocation of this dispute resolution procedure, the Permittee shall proceed to take any action required by those portions of the submission and of the Permit DEQ determines are not substantially affected by the dispute.
- g. The Permittee shall invoke the Dispute Resolution provisions of this Permit in good faith and not for purposes of delay.

L. INTERIM MEASURES

- 1. If during the course of any activity initiated under this Permit, DEQ determines that a release or potential release of hazardous constituents from a SWMU poses a threat to human health and the environment, DEQ may require interim measures. DEQ shall determine the specific measure(s) or require the Permittee to propose a measure(s). The interim measure(s) may include a permit modification, a schedule for implementation, and a written plan. DEQ shall notify the Permittee in writing of the requirement to perform interim measures. DEQ may modify this Permit to incorporate interim measures into the Permit.
- 2. The Permittee may propose interim measures at any time. The proposal shall include a written plan and a schedule for implementation. Depending upon the nature of the interim measure, a permit modification may not be required.

3. The following factors will be considered by DEQ in determining the need for interim measures and the need for permit modification:
- a. Time required to develop and implement a final remedy;
 - b. Actual and potential exposure to human and environmental receptors;
 - c. Actual and potential contamination of drinking water supplies and sensitive ecosystems;
 - d. The potential for further degradation of the medium in the absence of interim measures;
 - e. Presence of hazardous wastes in containers that may pose a threat of release;
 - f. Presence and concentration of hazardous waste including hazardous constituents in soil that have the potential to migrate to groundwater or surface water;
 - g. Weather conditions that may affect the current levels of contamination;
 - h. Risks of fire, explosion, or accident; and
 - i. Other situations that may pose threats to human health and the environment.

M. RECORDKEEPING AND REPORTING

In addition to the reporting requirements outlined in Section III.C, the Permittee shall report on a semi-annual basis in writing, to DEQ, on the progress and effectiveness of the corrective action program. These progress reports shall provide a chronology of the events during the preceding six (6) months and provide a summary of the planned activities for the following six (6) months. These reports shall be submitted semi-annually each year until the corrective action program has been completed [40 CFR 264.100(g)].

N. RE-OPENING OF THIS PERMIT

This Permit is based upon information submitted up until the date of issuance. Should additional information become available that indicates that there are SWMUs or AOCs which were not investigated, or were not completely investigated, prior to this Permit being issued, this Permit may be modified to include additional investigations and remedies. Any such modifications will be made in accordance with 40 CFR 270.42.