

Permit for Industrial Solid Waste Management Site issued under provisions of Texas Health and Safety Code ANN. Chapter 361 and Chapter 26 of the Texas Water Code Hazardous Waste Permit No. 50178 EPA ID. No. TX3213820738 ISWR No. 67004

This permit supersedes and replaces Hazardous Waste Permit No. 50178 Issued June 11, 2001

Name of Permittee: U. S. Department of the Army – Red River Army Depot

Highway 82 West, 100 James Carlow Drive ATTN: TARR-OL

Texarkana, Texas 75507-5000

Site Owner: U. S. Department of the Army – Red River Army Depot

Highway 82 West, 100 James Carlow Drive ATTN: TARR-OL

Texarkana, Texas 75507-5000

Classification of Site: Hazardous solid waste, on-site storage, closure, post-closure care, noncommercial facility.

The permittee is authorized to manage wastes in accordance with the limitations, requirements, and other conditions set forth herein. This permit is granted subject to the rules of the Commission and other Orders of the Commission, and laws of the State of Texas. This permit does not exempt the permittee from compliance with the Texas Clean Air Act. This permit will be valid until canceled, amended, modified or revoked by the Commission, except that the authorization to store wastes shall expire midnight, ten (10) years after the date of renewal permit approval. This permit was originally issued on August 2, 1988. This permit was renewed on June 11, 2001.

All provisions in this permit stem from State and/or Federal authority. Those provisions marked with an asterisk (*) stem from Federal authority and will implement the applicable requirements of HSWA for which the Texas Commission on Environmental Quality has not been authorized. Those provisions marked with a double asterisk (**) stem from federal authority only.

Issued Date: December 14, 2012

For the Commission

Table of Contents

1.	Facility Description	
	A. Size and Location of Site	7
	B. Incorporated Application Materials	7
II.	General Facility Standards	7
	A. Standard Permit Conditions	7
	B. Recordkeeping and Reporting Requirements	
	C. Incorporated Regulatory Requirements	
III.	Facility Management	16
	A. Operation of Facility	
	B. Personnel Training	
	C. Security	
	D. General Inspection Requirements	
	E. Contingency Plan	
	F. Special Permit Conditions (Not Applicable)	
IV.	Wastes and Waste Analysis	18
	A. Waste Analysis Plan	
	B. Authorized Wastes	
	C. Sampling and Analytical Methods	
V.	Authorized Units and Operations	19
	A. Authorized Units	
	B. Container Storage Areas	20
	C. Tanks and Tank Systems (Not Applicable)	
	D. Surface Impoundments (Not Applicable)	20
	E. Waste Piles (Not Applicable)	20
	F. Land Treatment Units (Not Applicable)	20
	G. Landfills (Not Applicable)	20
	H. / Incinerators (Not Applicable)	20
	I. Boilers/Industrial Furnaces (Not Applicable)	21
	J. Drip Pads (Not Applicable)	
	K. Miscellaneous Units	21
	L. Containment Buildings (Not Applicable)	21
VI.	Groundwater Detection Monitoring (Not Applicable)	21
VII.	Closure and Post-Closure Requirements	
	A. Facility Closure	21
	B. Financial Assurance for Closure (Not Applicable)	23
	C. Storage, Processing, and Combustion Unit Closure Requirements	
	D. Surface Impoundment Closure Requirements (Not Applicable)	
	E. Landfill Closure and Certification Requirements (Not Applicable)	
	F. Containment Buildings Closure Requirements (Not Applicable)	
	G. Facility Post-Closure Care Requirements	
	H. Financial Assurance for Post-Closure (Not Applicable)	25

VIII.	Liability Requirements (Not Applicable)	
IX.	Corrective Action for Solid Waste Management Units (See Section XI. Compliance Plan)25	
X.	Air Emission Standards	
Λ.	A. General Conditions 25	
	B. Process Vents	
	C. Equipment Leaks	
	D. Tanks, Surface Impoundments and Containers	
	•	
XI.	Compliance Plan	
	A. General Information (and Applicability)26	
	B. Authorized Components and Functions of Corrective Action and Compliance	
	Monitoring Systems27	
	C. General Design and Construction Requirements30	
	D. Corrective Action and Compliance Monitoring Objectives and the Groundwater	
	Protection Standard31	
	E. Corrective Action Program34	
	F. Groundwater Monitoring Program Requirements	
	G. Response and Reporting	
	H. Corrective Action and Interim Corrective Measures (ICMs) for Solid Waste	
	Management Units	
	I. Financial Assurance (Not Applicable)	
	J. General Provisions	
	K. Force Majeure	
	1. Torce majeure	
List o	f Tables:	
Table :	III.D. Inspection Schedule	
	III.E.2. Emergency Coordinators	
	III.E.3. Emergency Equipment	
	IV.B. Wastes Managed in Permitted Units	
	IV.C. Sampling and Analytical Methods	
	V.B. Container Storage Areas	
	V.K. Miscellaneous Units	
	VII.G. Post-Closure Period	
	ble I: Waste Management Units and Areas Subject to Groundwater Corrective Action and	
CF Tai	Compliance Monitoring	
CD Tol		
Cr Tal	ble II: Solid Waste Management Units and/or Areas of Concern Addressed in Permit	
CD TT	Section XI.H.	
CP Tal	ble III: Corrective Action Program * [Note: Long List Of Constituents Monitored Annually]*	
	Table of Detected Hazardous and Solid Waste Constituents and the Groundwater	
an	Protection Standard	
CP Tal	ble IIIA: Corrective Action Program * [Note: Short List Monitored Semi-Annually]* Table of	

Indicator Parameters and Groundwater Protection Standard

CP Table IV: Compliance Monitoring Program * [Note: Long List Monitored Annually]* Table of Hazardous and Solid Waste Constituents and Quantitation Limits

Permit No. 50178 Continuation Sheet 4 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

CP Table IVA: Compliance Monitoring Program * [Note: Short List Monitored Semi-Annually]*

Table of Detected Hazardous Constituents and the Groundwater Protection

Standard

CP Table V: Designation of Wells

CP Table VI: Compliance Period for RCRA-Regulated Units

CP Table VII: Reporting Requirements CP Table VIII: Compliance Schedule

List of Attachments:

A - Legal Description of Facility

B - Facility Map

C - List of Incorporated Application Materials

D - List of Permitted Facility Units

List of Compliance Plan Attachments:

CP Attachment A Facility Site Maps

Sheet 1 of 19 Facility Site Map

Sheet 2 of 19 Solid Waste Management Unit Location Map (if applicable)

Sheet 3 of 19 through Sheet 14 of 19 Well Location Maps

Sheet 15 of 19 through Sheet 19 of 19 Plume Management Zone (PMZ) Well Location Maps

CP Attachment B Public Participation in HSWA Corrective Action

CP Attachment C Well Design, Construction, Installation, Certification, Plugging and Abandonment Procedures and Specifications

Permit No. 50178

Permittee: U.S. Department of the Army – Red River Army Depot

Permit/Compliance Plan Acronyms

ACL – Alternate Concentration Limit

AMP – Attenuation Monitoring Point

AOC - Area(s) of Concern

APA – Affected Property Assessment

APAR – Affected Property Assessment Report

APOE -Alternate Point of Exposure

Appendix VIII - 40 CFR 261, Appendix VIII (Identification and Listing of Hazardous Waste -

Hazardous Constituents)

ASTM - American Society for Testing and Materials

BGS – Below Ground Surface

BLRA - Baseline Risk Assessment

CAO – Corrective Action Observation

CAS – Corrective Action System

CFR – Code of Federal Regulations

CMI – Corrective Measures Implementation

CMS - Corrective Measures Study

COC - Constituent(s) of Concern

EPA – United States Environmental Protection Agency

EPA SW-846 — Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, Third

Edition, November 1986

GWPS – Groundwater Protection Standard

HSWA - Hazardous and Solid Waste Amendments of 1984

ICM – Interim Corrective Measures

LDR - Land Disposal Restrictions

MDL – Method Detection Limit

MQL - Method Quantitation Limit

MSL – Mean Sea Level

NAPL - Non-Aqueous Phase Liquid

NOR – Notice of Registration

PCB – Polychlorinated Biphenyl

PCL - Protective Concentration Level

PMZ – Plume Management Zone

POC – Point of Compliance

POE – Point of Exposure

PQL - Practical Quantitation Limit

QA/QC – Quality Assurance/Quality Control

RACR – Response Action Completion Report

RAER - Response Action Effectiveness Report

RAP - Remedial Action Plan

RCRA - Resource Conservation and Recovery Act

RFA - RCRA Facility Assessment

RFI - RCRA Facility Investigation

RSA - Remedy Standard A

RSB - Remedy Standard B

SR/WM - Source Reduction and Waste Minimization

SSI – Statistically Significant Increase

SWDA - Solid Waste Disposal Act

SWMU - Solid Waste Management Unit(s)

TAC – Texas Administrative Code

Permit No. 50178 Continuation Sheet 6 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

TCEQ – Texas Commission on Environmental Quality

TCEQ QAPP — "Quality Assurance Project Plan for Environmental Monitoring and Measurement Activities Relating to the Resource Conservation and Recovery Act and Underground Injection Control"

TRRP – Texas Risk Reduction Program

Permit No. 50178

Permittee: U.S. Department of the Army – Red River Army Depot

I. Facility Description

A. Size and Location of Site

A permit is issued to the U.S. Department of the Army – Red River Army Depot (hereafter called the permittee), to operate a hazardous waste storage facility located on approximately 14,000 acres of land in Bowie County, Texas, drainage area of Segment 0225 in the Red River Basin and Segment 0312 of the Sulphur River Basin (North Latitude 33° 27' 49", West Longitude 94° 18' 47"). The legal description of the facility submitted in Permit No. 50178 Application dated March 22, 2011, is hereby made a part of this permit as "Attachment A". The hazardous waste management facility as delineated by the permittee's application map is hereby made a part of this permit as "Attachment B".

B. Incorporated Application Materials

This permit is based on, and the permittee shall follow the Part A and Part B Industrial & Hazardous Waste Application submittals dated March 22, 2011, May 2, 2011, January 26, 2012, and September 5, 2012, the Application Elements listed in "Attachment C", which are hereby approved subject to the terms of this permit and any other orders of the Texas Commission on Environmental Quality (TCEQ):

These materials are incorporated into this permit by reference as if fully set out herein. Any and all revisions to these elements shall become conditions of this permit upon the date of approval by the Commission.

II. General Facility Standards

A. Standard Permit Conditions

The permittee has a duty to comply with the Standard Permit Conditions under 30 Texas Administrative Code (TAC) Section 305.125. Moreover, the permittee has a duty to comply with the following permit conditions:

1. Modification of Permitted Facilities

The facility units and operational methods authorized are limited to those described herein and by the application submittals identified in Section I.B. All facility units and operational methods are subject to the terms and conditions of this permit and TCEQ rules. Prior to constructing or operating any facility units in a manner which differs from either the related plans and specifications contained in the permit application or the limitations, terms or conditions of this permit, the permittee must comply with the TCEQ permit amendment/ modification rules as provided in 30 TAC Sections 305.62 and 305.69.

2. Duty to Comply

The permittee must comply with all the conditions of this permit, except that the permittee need not comply with the conditions of this permit to the extent and for the duration such noncompliance is authorized in an emergency order issued by the Commission. Any permit noncompliance, other than noncompliance authorized by

Permit No. 50178 Continuation Sheet 8 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[II.A.2.]

an emergency order, constitutes a violation of the Resource Conservation and Recovery Act (RCRA) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. [30 TAC Section 305.142]

3. Severability

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

4. Definitions

For purposes of this permit, terms used herein shall have the same meaning as those in 30 TAC Chapters 305, 335, and 350 unless this permit specifically provides otherwise; where terms are not defined in the regulations or the permit, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

Application data - data used to complete the final application and any supplemental information.

5. Permit Expiration

In order to continue a permitted activity after the expiration date of the permit the permittee shall submit a new permit application at least 180 days before the expiration date of the effective permit, unless permission for a later date has been granted by the Executive Director. Authorization to continue such activity will terminate upon the effective denial of said application.

6. Certification Requirements

For a new facility, the permittee may not commence storage, processing, or disposal of solid waste; and for a facility being modified, the permittee may not process, store or dispose of solid waste in the modified portion of the facility, except as provided in 30 TAC Section 305.69 (relating to Solid Waste Permit Modification at the Request of the Permittee) until the following has been accomplished [30 TAC Section 305.144]:

The permittee has submitted to the Executive Director and the local Regional Office of the TCEQ, by certified mail or hand delivery, a letter signed by the permittee, and signed and sealed by a Texas Professional Engineer stating that the facility has been constructed or modified in compliance with the permit. If the certification is being provided to document proper closure of a permitted unit, or to certify installation or repair of a tank system, then the certification must be signed and sealed by an independent Texas licensed Professional Engineer. Required certification shall be in the following form:

Permit No. 50178

Permittee: U.S. Department of the Army – Red River Army Depot

[II.A.6.a.]

"This is to certify that the following activity (specify activity, e.g., construction, installation, closure, etc., of an item) relating to the following item (specify the item, e.g., the particular facility, facility unit, unit component, subcomponent part, or ancillary component), authorized or required by TCEQ Permit No. 50178 has been completed, and that construction of said facility component has been performed in accordance with and in compliance with good engineering practices and the design and construction specifications of Permit No. 50178."

- b. A certification report has been submitted, with the certification described in <u>Provision II.A.6.a.</u>, which is logically organized and describes in detail the tests, inspections, and measurements performed, their results, and all other bases for the conclusion that the facility unit, unit component, and/or closure have been constructed, installed and/or performed in conformance with the design and construction specifications of this permit and in compliance with this permit. The report shall describe each activity as it relates to each facility unit or component being certified including reference to all applicable permit provisions. The report shall contain the following items, at a minimum:
 - (1) Scaled, as-built plan-view and cross-sectional drawings which accurately depict the facility unit and all unit components and subcomponents and which demonstrate compliance with the design and construction specifications approved and detailed in the terms of this permit;
 - (2) All necessary references to dimensions, elevations, slopes, construction materials, thickness and equipment; and
 - (3) For all drawings and specifications, the date, signature, and seal of a Professional Engineer who is licensed in the State of Texas.
- The Executive Director has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit; or if within fifteen (15) days of submission of the letter required by paragraph (a) of this section, the permittee has not received notice from the Executive Director of the intent to inspect, prior inspection is waived and the permittee may commence processing, storage, or disposal of solid waste.

7. Land Disposal Restrictions (*)

The permittee shall comply with the land disposal restrictions as found in 40 Code of Federal Regulations (CFR) 268 and any subsequent applicable requirements promulgated through the Federal Register. Requirements include modifying/amending the permittee's waste analysis plan to include analyses to determine compliance with applicable treatment standards or prohibition levels, pursuant to 40 CFR 268.7(c) and 264.13(a).

8. Dust Suppression

Pursuant to 40 CFR 266.23(b)/30 TAC Section 335.214(b), the permittee shall not use waste, 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.

Continuation Sheet 10 of 47

Permit No. 50178

Permittee: U.S. Department of the Army – Red River Army Depot [II.A.]

9. Permit Reopener

This permit shall be subject to review by the Executive Director five (5) years from the date of permit issuance or reissuance and shall be modified as necessary to assure that the facility continues to comply with currently applicable requirements of the Solid Waste Disposal Act (SWDA) and the rules and regulations of the Commission. The permittee shall submit any information as may be reasonably required by the Executive Director to ascertain whether the facility continues to comply with currently applicable requirements of the SWDA and the rules and regulations of the Commission.

- 10. Texas Coastal Management Program (Not Applicable)
- 11. Monitoring of Commercial Hazardous Waste Management Facility Operations (Reserved)
- 12. Failure to Submit Relevant Facts in Permit Application

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or any report to the Executive Director, the permittee shall promptly submit the correct information or facts to the Executive Director. [30 TAC Section 305.125(19)]

- 13. Hazardous Waste Combustion Facility Provision (Reserved)
- 14. Waste Management Fee Assessment, Fee Payment, and Records and Reporting
 - a. If applicable, the permittee is subject to the assessment of fees for hazardous wastes which are stored, processed, disposed, or otherwise managed and for Class 1 industrial wastes which are disposed at a commercial facility. [30 TAC Section 335.325]
 - b. As applicable and except as provided in <u>Provision II.A.14.c.</u>, the permittee shall pay waste management fees monthly. Monthly fee payments shall be due by the 25th day following the end of the month for which payment is due. [30 TAC Section 335.328(b)]
 - c. If required, the permittee owes waste management fees in an amount less than \$500 for a calendar month or less than \$1,500 for a calendar quarter, the permittee may file a quarterly report and pay a quarterly fee. [30 TAC Section] 335.328(c)]
 - d. If required, the permittee shall document the basis for the assessment of any applicable waste management fees, including any adjustment to or exemption from assessment. [30 TAC Section 335.329(b)(4)]
 - e. If required, the permittee shall submit a monthly report of on-site waste management activities subject to the assessment of waste management fees on forms furnished or approved by the Executive Director. This report shall be due by the 25th day following the end of the month (or quarter) for which a report is made. Monthly (or quarterly) reports shall be submitted, regardless of whether

Permit No. 50178 Continuation Sheet 11 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[II.A.14.e.]

any storage, processing, or disposal was made during a particular month (or quarter), by preparing and submitting a summary indicating that no waste was managed during that month (or quarter). [30 TAC Section 335.329(b)(5)]

f. As applicable, the permittee shall maintain the required records and reports in accordance with 30 TAC Sections 335.329(c) and (d).

B. Recordkeeping and Reporting Requirements

- 1. Monitoring and Records
 - a. All data submitted to the TCEQ shall be in a manner consistent with the latest version of the "Quality Assurance Project Plan for Environmental Monitoring and Measurement Activities Relating to the Resource Conservation and Recovery Act and Underground Injection Control" (TCEQ QAPP).
 - b. Monitoring samples and measurements shall be taken at times and in a manner so as to be representative of the monitored activity. The method used to obtain a representative sample of the material to be analyzed shall be the appropriate method from Appendix I of 40 CFR Part 261 or an equivalent method approved in writing prior to use by the Executive Director of the TCEQ. Laboratory methods shall be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, 1987 (EPA SW-846), as revised Standard Methods for the Examination of Water and Wastewater, Eighteenth Edition, 1992, and 18th Edition supplement, 1994, or current adopted edition; RCRA Groundwater Monitoring: Draft Technical Guidance, 1992, OSWER Directive 9950.1, or an equivalent method;, as specified in the Waste Analysis Plan, Section IV of the Part B Application, and approved in writing prior to use by the Executive Director. [30 TAC Section 305.125(11)(A)]
 - c. The permittee shall retain in an organized fashion and furnish to the Executive Director, upon request, records of all monitoring information, copies of all reports and records required by this permit, and the certification required by 40 CFR 264.73(b)(9), for a period of at least three (3) years from the date of the sample, measurement, report, record, certification, or application [30 TAC Section 305.125(11)(B)].
 - d. Records of monitoring shall include the following [30 TAC Section 305.125(11)(C)]:
 - (1) The date, time, and place of sample or measurement;
 - (2) The identity of individual who collected the sample or measurement;
 - (3) The dates analyses were performed;
 - (4) The identity of individual and laboratory who performed the analyses;
 - (5) The analytical techniques or methods used; and
 - (6) The results of such analyses or measurements.

Permit No. 50178 Continuation Sheet 12 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[II.B.]

2. Operating Record

In addition to the recordkeeping and reporting requirements specified elsewhere in this permit, the permittee shall maintain a written operating record at the facility, in accordance with 40 CFR 264.73. These records will be made available to representatives of the TCEQ upon request.

3. Retention of Application Data

Throughout the term of the permit, the permittee shall keep records of data used to complete the final application and any supplemental information. All copies of renewals, amendments, revisions and modifications must also be kept at the facility such that the most current documents are available for inspection at all times. All materials, including any related information, submitted to complete the application shall be retained, not just those materials which have been incorporated into the permit. [30 TAC Section 305.47]

4. Reporting of Noncompliance

The permittee shall report to the Executive Director of the TCEQ information regarding any noncompliance which may endanger human health or the environment. [30 TAC Section 305.125(9)]

- a. Report of such information shall be provided orally within twenty-four (24) hours from the time the permittee becomes aware of the noncompliance.
- b. A written submission of such information shall also be provided within five (5) days of the time the permittee becomes aware of the noncompliance. The written submission shall contain the following:
 - (1) a description of the noncompliance and its cause;
 - (2) the potential danger to human health or safety, or the environment;
 - (3) the period of noncompliance, including exact dates and times;
 - (4) if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
 - (5) steps taken or planned to reduce, eliminate, and prevent the recurrence of the noncompliance, and to mitigate its adverse effects.

5. Twenty-Four Hour Reporting

The following shall be included as information which must be reported orally within twenty-four (24) hours pursuant to 30 TAC Section 305.125(9) [30 TAC Section 305.145]:

a. Information concerning release of any solid waste that may cause an endangerment to public drinking water supplies; and

Permit No. 50178 Continuation Sheet 13 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[II.B.5.]

- b. Any information of a release or discharge of solid waste, or of a fire or explosion which could threaten the environment or human health or safety, outside the facility. The description of the occurrence and its cause shall include:
 - (1) name, address, and telephone number of the owner or operator;
 - (2) name, address, and telephone number of the facility;
 - (3) date, time, and type of incident;
 - (4) name and quantity of material(s) involved;
 - (5) the extent of injuries, if any;
 - (6) an assessment of actual or potential hazards to the environment and human health or safety outside the facility, where this is applicable; and
 - (7) estimated quantity and disposition of recovered material that resulted from the incident.

6. Notice Waiver

The Executive Director may waive the five (5) day written notice requirement specified in Provision II.B.4.b. in favor of a written report submitted to the Commission within fifteen (15) days of the time the permittee becomes aware of the noncompliance or condition. [30 TAC Section 305.145(b)]

7. Biennial Report

The permittee shall prepare and submit to the Executive Director all information and records required by 40 CFR 264.75. By March 1st of each even-numbered year for the preceding odd-numbered year's activities the permittee shall submit either a Biennial Report or letter certifying submission of the above. One copy of the report/letter shall be submitted to the TCEQ Industrial & Hazardous Waste Permits Section and an additional copy shall be submitted to the appropriate TCEQ Regional Office.

8. Pollution Prevention

Facilities subject to 30 TAC Chapter 335, Subchapter Q - Pollution Prevention: Source Reduction and Waste Minimization must prepare a five (5) year Source Reduction and Waste Minimization Plan and submit a Source Reduction and Waste Minimization (SR/WM) Annual Report to the TCEQ Small Business and Environmental Assistance Division. This report must be submitted annually on the dates specified in the rule.

9. Waste Minimization

The permittee shall annually certify, by January 25th for the previous calendar year, the following information [40 CFR 264.73(b)(9)]:

Permit No. 50178 Continuation Sheet 14 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[II.B.9.]

a. that the permittee has a program in place to reduce the volume and toxicity of all hazardous wastes which are generated by the permittee's facility operation to the degree determined to be economically practicable; and

- b. that the proposed method of treatment, storage, or disposal is that practicable method currently available to the permittee which minimizes the present and future threat to human health and the environment. This waste minimization certification is to be included in the facility operating records until closure.
- 10. Annual Detection Monitoring Report (Reserved)

11. Manifest Discrepancy Report

If a significant discrepancy in a manifest is discovered, the permittee must attempt to reconcile the discrepancy. If not resolved within fifteen (15) days, the permittee must submit a report, describing the incident, to the Executive Director, as per the requirements of 30 TAC Section 335.12(c)(4). A copy of the manifest must be included in the report.

12. Unmanifested Waste Report

A report must be submitted to the Executive Director within fifteen (15) days of receipt of unmanifested waste, as per the requirements of 30 TAC Section 335.15(3).

13. Monthly Summary

The permittee shall prepare a monthly report, of all manifests received during the month, summarizing the quantity, character, transporter identity, and the method of storage, processing and disposal of each hazardous waste or Class 1 waste shipment received, itemized by manifest document number. This monthly summary report shall be submitted to the TCEQ Registration and Reporting Division on or before the 25th day of each month for waste received during the previous month. [30 TAC Section 335.15(2)]

C. Incorporated Regulatory Requirements

1. State Regulations

To the extent applicable to the activities authorized by this permit, the following TCEQ regulations are hereby made provisions and conditions of the permit. Issuance of this permit with incorporated rules in no way exempts the permittee from compliance with any other applicable state statute and/or commission rules:

- 30 TAC Chapter 305, Subchapter A: General Provisions;
- b. 30 TAC Chapter 305, Subchapter C: Application for Permit;
- 30 TAC Sections 305.61 305.69 (regarding amendments, renewals, transfers, corrections, revocation and suspension of permits);

Permit No. 50178

Permittee: U.S. Department of the Army – Red River Army Depot

[II.C.1.]

- d. 30 TAC Sections 305.121 305.125 (regarding permit characteristics and conditions);
- e. 30 TAC Sections 305.127 305.129 (regarding permit conditions, signatories and variance procedures);
- f. 30 TAC Chapter 305, Subchapter G: Additional Conditions for Hazardous and Industrial Solid Waste Storage, Processing and Disposal Permits;
- g. 30 TAC Chapter 335, Subchapter A, Industrial Solid Waste and Municipal Hazardous Waste in General:
- h. 30 TAC Chapter 335, Subchapter B, Hazardous Waste Management General Provisions;
- i. 30 TAC Section 335.152, Standards;
- j. 30 TAC Sections 335.153 335.155 (regarding reporting of emergency situations and additional reports required);
- k. 30 TAC Sections 335.156 335.167 (regarding applicability of groundwater monitoring programs and corrective action requirements);
- 30 TAC Sections 335.168 335.169 (regarding the design and operating requirements and closure and post-closure care of surface impoundments);
- m. 30 TAC Sections 335.173 335.174 (regarding the design and operating requirements and closure and post-closure care of landfills);
- n. 30 TAC Sections 335.325, 335.328 and 335.329 (regarding waste management fee assessment, fee payment, and records and reports);
- o. 30 TAC Chapter 335, Subchapter Q, Pollution Prevention: Source Reduction and Waste Minimization; and
- p. 30 TAC Chapter 350, Texas Risk Reduction Program.

2. Federal Regulations

To the extent applicable to the activities authorized by this permit, the following provisions of 40 CFR Parts 264 and Part 268, adopted by reference by 30 TAC Section 335.152 and 335 Subchapter O are hereby made provisions and conditions of this permit, to the extent consistent with the Texas Solid Waste Disposal Act, Texas Health and Safety Code Ann., Chapter 361 (Vernon), and the rules of the TCEQ:

- a. Subpart B -- General Facility Standards;
- b. Subpart C -- Preparedness and Prevention;
- c. Subpart D -- Contingency Plan and Emergency Procedures;
- d. Subpart E -- Manifest System, Recordkeeping, and Reporting;

Permit No. 50178

 $Permittee: \ U.S. \ Department \ of the \ Army-Red \ River \ Army \ Depot$

[II.C.1.]

- e. Subpart G -- Closure and Post-Closure;
- f. Subpart I -- Use and Management of Containers;
- g. Subpart X -- Miscellaneous Units;
- h. Subpart AA -- Air Emission Standards for Process Vents;
- i. Subpart BB -- Air Emission Standards for Equipment Leaks;
- j. Subpart CC -- Air Emission Standards for Tanks, Surface Impoundments, and Containers; and
- k. 40 CFR Part 268 -- Land Disposal Restrictions (LDR).

III. Facility Management

A. Operation of Facility

The permittee shall construct, 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, or surface water which could threaten human health or the environment, as required by 40 CFR 264.31. All equipment and structures used to manage hazardous waste at the facility shall be maintained in proper operating condition.

B. Personnel Training

The permittee shall ensure that all facility personnel involved with hazardous waste management successfully complete a training program as required by 40 CFR 264.16. The permittee shall maintain training documents and records, as required by 40 CFR 264.16(d) and (e).

C. Security

- 1. The permittee shall provide a twenty-four (24) hour surveillance system which continuously monitors and controls entry onto the active portion of the facility or
- 2. The permittee shall provide and maintain an artificial or natural barrier which completely surrounds the active waste management portion(s) of the facility and shall have a means to control entry, at all times, through gates or other entrances to these same facility areas.
- 3. The permittee shall post warning signs at all points of access to the active waste management portion(s) of the facility and along the natural and/or artificial barriers in sufficient numbers to be seen from any approach to that (those) portion(s) of the facility. The signs shall be printed so that they may be clearly read from a distance of at least twenty-five (25) feet, and shall state "Danger Unauthorized Personnel Keep Out".

Permit No. 50178 Continuation Sheet 17 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[III.]

D. General Inspection Requirements

The permittee shall follow the inspection schedule contained in the permit application submittals identified in Permit Section I.B. and as set out in Table III.D. - Inspection Schedule. The permittee shall remedy any deterioration or malfunction discovered by an inspection, as required by 40 CFR 264.15(c). Records of inspection shall be kept, as required by 40 CFR 264.15(d). Any remedial actions taken in response to facility inspections and the date of the remediation shall be included in the inspection records.

E. Contingency Plan

- 1. The permittee shall follow the Contingency Plan, developed in accordance with 40 CFR Part 264 Subpart D, and contained in the permit application submittals identified in Permit Section I.B. Copies of this plan shall be available to all employees involved in waste management at the facility.
- The permittee shall immediately initiate clean-up procedures for removal of any spilled hazardous or industrial nonhazardous wastes and waste residues and shall take all steps necessary to prevent surface water or groundwater contamination as a result of any spills.
- 3. Collected hazardous or industrial nonhazardous wastes, spills, leaks, clean-up residues, and contaminated rainfall runoff, including contaminated stormwater from the drainage control system(s) associated with the permitted units, shall be removed promptly after the spillage and or rainfall event in as timely a manner as is necessary to prevent overflow of the system by the following method(s):
 - a. Removal to an on-site authorized facility unit;
 - Removal to an authorized industrial solid waste management facility or authorized off-site facility; or
 - c. Discharge in accordance with a wastewater discharge permit.
- 4. The permittee shall ensure that any equipment or vehicles which have come in contact with waste in the loading/unloading, storage, processing, and/or disposal areas have been decontaminated prior to their movement into designated uncontaminated areas of the site property. At a minimum, all contaminated equipment shall be externally decontaminated and contaminated vehicles shall have their undercarriages and tires or tracks decontaminated to remove all waste residues and to prevent contamination of uncontaminated areas. All wash water generated shall be collected and disposed of in accordance with Provision III.E.3.

5. Preparedness and Prevention

a. At a minimum, the permittee shall equip the facility as set forth in Table III.E.3.
 - Emergency Equipment contained in the permit application identified in Permit Section I.B., as required by 40 CFR 264.32.

Permit No. 50178 Continuation Sheet 18 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[III.E.5.]

b. All sumps, pumps, fire- and spill-control equipment, decontamination equipment, and all other equipment and structures authorized or required through the Contingency Plan shall be tested and maintained, as necessary, to assure its proper operation in time of emergency, as required by 40 CFR 264.33.

- c. The permittee shall maintain access to the communications or alarm system, as required by 40 CFR 264.34.
- d. A trained emergency coordinator shall be available at all times in case of an emergency and will have the responsibility for coordinating all emergency response measures as required by 40 CFR 264.55 and 264.56. Emergency number(s) shall be posted in all waste management portions of the facility and all employees in those areas shall be trained in the location of those postings.
- F. Special Permit Conditions (Not Applicable)

IV. Wastes and Waste Analysis

A. Waste Analysis Plan

The permittee shall follow the Waste Analysis Plan, developed in accordance with 40 CFR 264.13 and the permit application identified in Permit Section I.B.

B. Authorized Wastes

1. The permittee is authorized to manage hazardous wastes listed in Table IV.B. - Wastes Managed in Permitted Units, subject to the limitations provided herein.

Wastes authorized for storage include those generated from facility sources.

2. Hazardous and Non-hazardous Waste Received From Off-Site Sources

The permittee may not receive hazardous or non-hazardous waste from off-site sources.

- 3. The wastes authorized in Table IV.B. shall not contain any of the following:
 - a. PCB waste, as defined by the Environmental Protection Agency (EPA) in regulations issued pursuant to the Toxic Substances Control Act under 40 CFR Part 761, unless the permittee is compliant with the federal requirements for PCB storage as specified in 40 CFR Part 761;
 - b. Radioactive materials/wastes unless the permittee is authorized to store and process these wastes in compliance with specific licensing and permitting requirements under Chapter 401 of the Texas Health and Safety Code. In accordance with 30 TAC 336.203, no person shall dispose of radioactive material unless that person has a license from the TCEQ or an exemption from the Texas Department of State Health Services (TDSHS) or the TCEQ under Texas Health and Safety Code, Section 401.106(a).

Permit No. 50178 Continuation Sheet 19 of 47

 $Permittee: \ U.S. \ Department \ of the \ Army-Red \ River \ Army \ Depot$

[IV.B.3.]

- c. Explosive material, as defined by the Department of Transportation under 49 CFR Part 173;
- d. Dioxin-containing wastes, identified by EPA as F020, F021, F022, F023, F026, and F027 wastes in 40 CFR 261.31;
- e. Garbage as defined in 30 TAC Section 330.3(56)
- f. Municipal Solid Waste as defined in 30 TAC Section 330.3(88);
- g. Putrescible Waste as defined in 30 TAC Section 330.3(119); or
- h. Special Waste from Health-Care Related Facilities subject to 25 TAC Chapter 1 or 30 TAC Chapter 330.
- 4. Prior to accepting any additional wastes not authorized in Table IV.B., the permittee shall follow the permit amendment or modification requirements listed in 30 TAC Sections 305.62 and 305.69.
- 5. The permittee may store wastes restricted under 40 CFR Part 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 the following:
 - a. Clearly marking each container to identify its contents and the date each period of accumulation begins;
 - b. Clearly marking each tank with a description of its contents, the quantity of each hazardous waste received, and the date each period of accumulation begins, or such information for each tank is recorded and maintained in the operating record at that facility.

C. Sampling and Analytical Methods

- 1. Table IV.C. Sampling and Analytical Methods, shall be used in conjunction with the Waste Analysis Plan referenced in Permit Section IV.A., in performing all waste analyses.
- 2. The permittee shall ensure that all waste analyses utilized for waste identification or verification have been performed in accordance with methods specified in the current editions of EPA SW-846, American Society for Testing and Materials (ASTM) or other methods accepted by the TCEQ. The permittee shall have a Quality Assurance/Quality Control (QA/QC) program that is consistent with EPA SW-846 and the TCEQ QAPP.

V. Authorized Units and Operations

A. Authorized Units

Permit No. 50178 Continuation Sheet 20 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[V.A.]

1. The permittee is authorized to operate the facility units listed in "Attachment D" for storage subject to the limitations herein. All waste management activities not otherwise exempted from permitting under 30 TAC Section 335.2 shall be confined to the authorized facility units listed in "Attachment D". References hereinafter in this permit to "TCEQ Permit Unit No. " shall be to the facility units listed in "Attachment D". All authorized units must be clearly identified as numbered in "Attachment D". These units must have signs indicating "TCEQ Permit Unit No.".

- 2. The permittee shall comply with 40 CFR 264.17, relating to general requirements for ignitable, reactive, or incompatible wastes.
- 3. The permittee shall prevent inundation of any permitted units and prevent any discharges of any waste or runoff of waste contaminated stormwater from permitted units. Additionally, each loading or unloading area, associated with a permitted hazardous or nonhazardous waste management unit, shall be provided with a drainage control system which will collect spills and precipitation in such a manner as to satisfy the following:
 - a. Preclude the release from the system of any collected spills, leaks or precipitation;
 - b. Minimize the amount of rainfall that is collected by the system; and
 - c. Prevent run-on into the system from other portions of the facility.

B. Container Storage Areas

- 1. Container storage areas are shown in Table V.B. Container Storage Areas. The permittee is authorized to operate the facility container storage areas for storage subject to the limitations contained herein.
- 2. Containers holding hazardous waste shall be managed in accordance with 40 CFR 264.171, Condition of containers; 40 CFR 264.172, Compatibility of waste with containers; and 40 CFR 264.173, Management of containers.
- 3. The permittee shall construct and maintain the containment systems for the container storage areas in accordance with the drawings and details included in the Part B Application identified in Provision I.B. At a minimum, the containment system must meet the requirements of 40 CFR 264.175.
- C. Tanks and Tank Systems (Not Applicable)
- D. Surface Impoundments (Not Applicable)
- E. Waste Piles (Not Applicable)
- F. Land Treatment Units (Not Applicable)
- G. Landfills (Not Applicable)
- H. Incinerators (Not Applicable)

Permit No. 50178 Continuation Sheet 21 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[V.]

I. Boilers/Industrial Furnaces (Not Applicable)

J. Drip Pads (Not Applicable)

K. Miscellaneous Units

Miscellaneous units are shown in Table V.K - Miscellaneous Units. The permittee is not authorized to process additional hazardous wastes. The permittee shall close the units in accordance with the requirements in <u>Provision VII.A.1.</u>

L. Containment Buildings (Not Applicable)

VI. Groundwater Detection Monitoring (Not Applicable)

VII. Closure and Post-Closure Requirements

A. Facility Closure

1. The permittee shall follow the Closure Plan, developed in accordance with 40 CFR Part 264 Subpart G, and contained in the permit application submittals identified in Permit Section I.B. except as modified in Permit Section VII.C.

In addition, facility closure shall commence:

- a. Upon direction of the TCEQ for violation of the permit, TCEQ rules, or state statutes; or
- b. Upon suspension, cancellation, or revocation of the terms and conditions of this permit concerning the authorization to receive, store, process, or dispose of waste materials; or
- c. Upon abandonment of the site; or
- d. Upon direction of the TCEQ for failure to secure and maintain an adequate bond or other financial assurance as required by Provision VII.B.1.
- 2. Request for Permit Modification or Amendment

The permittee shall submit a written request for a permit modification or amendment to authorize a change in the approved Closure Plan(s), in accordance with 40 CFR 264.112 (c). The written request shall include a copy of the amended Closure Plan(s) for approval by the Executive Director.

3. Time Frames for Modification\Amendment Request Submittal

The permittee shall submit a written request for a permit modification or amendment in accordance with the time frames in 40 CFR 264.112 (c)(3).

4. Closure Notice and Certification Requirements

Permit No. 50178 Continuation Sheet 22 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[VII.A.4.]

The permittee shall notify the Executive Director, in writing, at least sixty (60) days prior to the date on which he expects to begin partial or final closure of a surface impoundment, or landfill unit, or final closure of a facility with such a unit; or at least forty-five (45) days prior to the date on which he expects to begin partial or final closure of a facility with processing or storage tanks, container storage, or incinerator units; or at least forty-five (45) days prior to the date on which he expects to begin partial or final closure of a boiler or industrial furnace, whichever is earlier. A copy of the notice shall be submitted to the TCEQ Regional Office.

- The permittee shall notify the TCEQ Regional Office at least ten (10) days prior to any closure sampling activity required by the permit in order to afford regional personnel the opportunity to observe these events and collect samples.
- 5. Unless the Executive Director approves an extension to the closure period, as per the requirements of 40 CFR 264.113(b), the permittee must complete partial and final closure activities within 180 days after receiving the final known volume of hazardous wastes at the hazardous waste management unit or facility.
- 6. As per the requirements of 40 CFR 264.115, within sixty (60) days of completion of closure of each permitted hazardous waste surface impoundment, or landfill unit, and within sixty (60) days of the completion of final closure, the permittee shall submit to the Executive Director, by registered mail, with a copy to the TCEQ Regional Office, a certification that the hazardous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved Closure Plan and this permit. The certification, which shall be signed by the permittee and by a Professional Engineer licensed in Texas, must be in the form described in Provision II.A.6. A closure certification report shall be submitted with the required certifications which includes a summary of the activities conducted during closure and the results of all analyses performed. The certification report shall contain the information required by Provision II.A.6., 30 TAC 350.32 (Texas Risk Reduction Program (TRRP) Remedy Standard A), 30 TAC Section 350.33 (TRRP, Remedy Standard B), and/or 30 TAC Section 350.95 (response Action Completion Report (RACR). Documentation supporting the licensed Professional Engineer's certification shall be furnished to the Executive Director upon request.
- For each disposal unit closed after permit issuance, the permittee shall submit documentation to demonstrate compliance with 40 CFR 264.116 (relating to survey plat) and 264.119 (relating to post-closure notices). Documentation to demonstrate compliance with survey plat requirements must be submitted to the TCEQ at the time of submission of the certification of closure. Documentation to show compliance with post-closure notices must be submitted to the TCEQ no later than sixty (60) days after certification of closure.
- 8. Final closure is considered complete when all hazardous waste management units at the facility have been closed in accordance with all applicable closure requirements so that hazardous waste management activities under 40 CFR Part 264 and 265 are no longer conducted at the facility unless subject to the provisions in 40 CFR 262.34.

Permit No. 50178 Continuation Sheet 23 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[VII.A.]

9. All units, sumps, pumps, piping and any other equipment or ancillary components which have come in contact with hazardous wastes shall either be decontaminated by removing all waste, waste residues, and sludges or be disposed of at an authorized off-site facility.

- 10. All contaminated equipment/structures and liners (i.e., debris) intended for land disposal shall be treated in a manner which meets or exceeds the treatment standards for hazardous debris contained in 40 CFR 268.45 or removed and managed at an authorized industrial solid waste management facility. All contaminated dikes and soils intended for land disposal shall be treated in a manner which meets or exceeds the treatment standards for hazardous soils contained in 40 CFR 268.49 or removed and managed at an authorized industrial solid waste management facility.
- 11. All hard-surfaced areas within the hazardous waste management unit areas shall be decontaminated and the wash water generated treated and/or disposed at an authorized off-site facility.
- 12. Verification of decontamination shall be performed by analyzing wash water, and as necessary, soil samples for the hazardous constituents which have been in contact with the particular item being decontaminated. In addition, the permittee shall perform visual inspections of the equipment/structures for visible evidence of contamination.
- 13. Unless it can be demonstrated that soil contamination has not occurred, soils shall be sampled and analyzed. Sufficiently detailed analyses of samples representative of soils remaining in non-hard-surfaced areas of the storage and processing facility area shall be performed to verify removal or decontamination of all waste and waste residues.
- 14. Soil and/or washwater samples shall be analyzed using laboratory methods specified in Provision II.B.1.b. Equivalent or modified methods must be specified in the Closure Plan and have written approval of the Executive Director prior to use. All data submitted to the TCEQ shall be in a manner consistent with the latest version of the TCEQ QAPP.
- 15. Decontamination shall be deemed complete when no visible evidence of contamination is observed and when the results from verification sampling and analyses indicate wash water concentrations and/or soil concentrations are below the applicable critical Protective Concentration Level (PCL) for Remedy Standard A. If the underlying soils are decontaminated or removed to the PCL for Remedy Standard A, Commercial/Industrial Land use, the permittee shall comply with the institutional controls requirements of 30 TAC Section 350.111 as required.
- B. Financial Assurance for Closure (Not Applicable)
- C. Storage, Processing, and Combustion Unit Closure Requirements

Permit No. 50178 Continuation Sheet 24 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[VII.C.]

The permittee shall close the storage, processing, and combustion units identified as TCEQ Permit Unit Nos. 1, 2, 3, 7,8, and 9 in accordance with the approved Closure Plans. The Closure Plans are hereby modified to incorporate the applicable requirements in 40 CFR Part 264, Subpart G, 40 CFR 264.178, 40 CFR 264.90(d), and the Texas Risk Reduction Program of 30 TAC Chapter 350.

- D. Surface Impoundment Closure Requirements (Not Applicable)
- E. Landfill Closure and Certification Requirements (Not Applicable)
- F. Containment Buildings Closure Requirements (Not Applicable)
- G. Facility Post-Closure Care Requirements

For each hazardous waste management unit which is closed as a landfill, the permittee shall conduct post-closure care of the unit for a period of at least thirty (30) years after certification of closure of each respective unit. The Post-Closure Care Period for each closed unit is specified in Table VII.G - Post-Closure Period. Post-Closure Care shall be performed in accordance with the Post-Closure Plans referenced in Permit Section I.B., 40 CFR 264.117, and the following requirements:

- 1. Maintain all storm water conveyance structures in good functional condition.
- 2. Maintain the cover on the OTC Landfill (Permit Unit No. 11), as applicable, such that the cover promotes drainage, prevents ponding, minimizes surface water infiltration, and minimizes erosion of the cover. Any desiccation cracks, erosion, gullying, or other damage shall be repaired upon observance.
- 3. Maintain a self-sustaining vegetative cover on the capped areas by periodic seeding, fertilizing, irrigation, and/or mowing.
- 4. Maintain all benchmarks at the facility.
- 5. Maintain the facility perimeter fence, manned or locked gates, and warning signs in good functional condition.
- 6. Ensure that all entrances to the facility have manned or locked gates.
- 7. Ensure that the TCEQ has access to the facility.
- 8. Prepare and submit the Biennial Report required by Provision II.B.7.
- 9. Perform all groundwater monitoring and related activities specified in Section XI. Compliance Plan.
- 10. General Post-Closure Requirements

Request for Permit Modification or Amendment

Continuation Sheet 25 of 47 Permit No. 50178

Permittee: U.S. Department of the Army – Red River Army Depot

[VII.G.10.]

The permittee shall submit a written request for a permit modification or amendment to authorize a change in the approved Post-Closure Plan(s) in accordance with 40 CFR 264.118 (d)(2). The written request shall include a copy of the amended Post-Closure Plan(s) for approval by the Executive Director.

Time Frames for Modification/Amendment Request

The permittee shall submit a written request for a permit modification or amendment in accordance with the time frames in 40 CFR 264.118 (d)(3).

11. Post-Closure Notice and Certification Requirements

No later than sixty (60) days after completion of the established post-closure period for each unit, the owner or operator shall submit to the Executive Director, by registered mail with a copy to the TCEQ Regional Office, a certification that the Post-Closure Care Period for the unit was performed in accordance with the specifications of the approved Post-Closure Plan and this permit. The certification shall be signed by the permittee and a registered professional engineer. Documentation supporting the registered professional engineer's certification must be furnished to the Executive Director upon request.

H. Financial Assurance for Post-Closure (Not Applicable)

VIII. **Liability Requirements (Not Applicable)**

IX. Corrective Action for Solid Waste Management Units (See Section XI. Compliance Plan)

Air Emission Standards X.

A. General Conditions

1. Emissions from this facility must not cause or contribute to a condition of "air pollution" as defined in Section 382.003 of the Texas Health and Code Ann. or violate Section 382.085 of the Texas Health and Safety Code Ann. If the Executive Director of the TCEQ determines that such a condition or violation occurs, the permittee shall implement additional abatement measures as necessary to control or prevent the condition or violation.

The permittee shall include in the Biennial Report, required in Provision II.B.7., a statement that hazardous waste management units or associated ancillary equipment at this facility are not subject to any of the requirements in <u>Provisions</u> X.B. and X.C., if these requirements are not applicable to any hazardous waste management units or associated ancillary equipment at this facility. If at any time any hazardous waste management units or associated ancillary equipment become subject to the requirements in Provisions X.B. and X.C. the permittee must immediately comply with these requirements.

B. Process Vents

Permit No. 50178 Continuation Sheet 26 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[X.B.]

The permittee must comply with the requirements of 30 TAC §335.152(a)(17)/40 CFR Part 264 Subpart AA, as applicable.

C. Equipment Leaks

The permittee must comply with the requirements of 30 TAC §335.152(a)(18)/40 CFR Part 264 Subpart BB, as applicable.

D. Tanks, Surface Impoundments and Containers

The permittee must comply with the requirements of 40 CFR Part 264, Subpart CC, as applicable.

XI. Compliance Plan

- A. General Information (and Applicability)
 - 1. The term "Uppermost Aquifer" as referenced in this Compliance Plan refers to the unconfined saturated zone of weathered and unweathered shale in the lower Wilcox and upper Midway Groups. The weathered shale is approximately 30 to 50 feet thick, consisting of mostly weathered clays, silts, sands and sandy to silty clays with occasional, scattered gypsum lined fractures encountered at depths between 10 to 40 feet below ground surface (BGS). The weathered shale is assigned to the Wilcox, which ranges in elevation from approximately 310 to 450 feet above Mean Sea Level (MSL). The underlying Midway is thought to consist of approximately 800 feet of unweathered clays, silts, sands, and sandy to silty clays. The contact between the weathered and unweathered shales can be transitional with weathered and unweathered layers that are interbedded. Groundwater is typically encountered from 6 to 14 feet BGS. Language for both the Corrective Action Program (30 TAC Section 335.166) and the Compliance Monitoring Program (30 TAC Section 335.165) is included in this Compliance Plan for reference and as contingency for future changes in accordance with Provision XI.D.6. Applicability of specific Corrective Action Program or Compliance Monitoring Program requirements depends on the status of the units, as defined in Provisions XI.A.2. through A.4. and CP Table I.
 - 2. The Compliance Plan is specific to the waste management units listed in CP Table I (Items A and B) and depicted in CP Attachment A, for which the groundwater Corrective Action Program and Compliance Monitoring Program apply, pursuant to 30 TAC Sections 335.166 and 335.165, for releases from RCRA-regulated units.
 - 3. The Compliance Plan is specific to the waste management units listed in CP Table I (Item D) and depicted in CP Attachment A, for which alternative requirements for the groundwater Corrective Action Program apply, pursuant to 30 TAC Sections 335.151, 335.156 and Chapter 350, for commingled releases from RCRA-regulated units and one or more SWMUs and/or AOC.
 - 4. The Compliance Plan is specific to the SWMU and/or AOC listed in CP Table I (Item C) and depicted in Attachment A, for which the Corrective Action Program applies pursuant to 30 TAC Section 335.167 and Chapter 350 for releases from the SWMUs.

Continuation Sheet 27 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[XI.A.]

Permit No. 50178

5. The Compliance Plan is specific to the SWMU and/or AOC listed in CP Table II for which investigation and necessary corrective action applies pursuant to 30 TAC Section 335.167 and Chapter 350 and Permit Section XI.H.

6. The Compliance Plan applies to any SWMU and/or AOC discovered subsequent to issuance of this Compliance Plan. The permittee shall notify the Executive Director within fifteen (15) days of such a discovery. Within forty-five (45) days of discovering a SWMU or AOC, the permittee shall complete the following:

Submit a RCRA Facility Assessment (RFA) report for that SWMU and/or AOC which shall be based on EPA RCRA Facility Assessment Guidance, October 1986, NTIS PB 87-107769 or subsequent revisions. The purpose of the RFA is to identify releases or potential releases of hazardous waste, hazardous constituents or other constituents of concern from SWMU and/or AOC that may require corrective action. If the RFA indicates there is no release, the permittee shall submit the RFA report to document results and the requirements of 30 TAC Chapter 350 shall not apply. However, if the RFA indicates that there is a release or a potential for release that warrants further investigation, the permittee shall conduct an investigation and necessary corrective action based on 30 TAC Chapter 350 requirements, applicable guidance, and the approved schedules in accordance with Permit Section XI.H. Upon written approval of the RFA, the permittee shall include the newly discovered SWMU and/or AOC with each groundwater report in accordance with CP Table VII, and include the new SWMU and/or AOC on CP Tables I or II as appropriate, with the next Permit/Compliance Plan modification, amendment or renewal.

- 7. All dates in this Compliance Plan shall be referenced to the date of issuance of this Permit by the Texas Commission on Environmental Quality (TCEQ) unless otherwise specified. This Compliance Plan was developed based on the Compliance Plan Application dated February 2011, and as revised January 2012, which contained a Sampling and Analysis Plan dated July 2010.
- B. Authorized Components and Functions of Corrective Action and Compliance Monitoring Systems

Corrective Action Systems are required for units specified in CP Table I, Items A, C, and D. The permittee is authorized to install and operate the Corrective Action System components specified in Provisions XI.B.1. through XI.B.10., subject to the limitations contained herein. Compliance Monitoring System components for units listed in CP Table I, Item B are specified below in Provision XI.B.11.

Corrective Action Systems:

- Groundwater monitoring system may at a minimum consist of the following categories of wells listed in CP Table V, to monitor groundwater quality. An application to modify or amend the Compliance Plan is required to change the category or wells listed in CP Table V.
 - a. Background Well(s) unaffected by the operation of the facility.
 - b. POC Wells to demonstrate compliance with the Groundwater Protection Standard (GWPS).

Permit No. 50178 Continuation Sheet 28 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[XI.B.1.]

c. Point of Exposure (POE) Wells, to demonstrate compliance with the GWPS and evaluate the effectiveness of the remediation program.

- d. Alternate Point of Exposure (APOE) Wells to demonstrate compliance with the GWPS at a location other than the prescribed POE; and in maintaining a Plume Management Zone (PMZ) in accordance with 30 TAC Section 350.33.
- 2. The permittee is authorized to install and operate the following additional corrective action system wells to monitor groundwater quality and hydrogeological conditions of the aquifer as designated in CP Attachment A. The permittee may propose changes to the following corrective action system wells as part of the reporting requirements in CP Table VII (Item 12) and shall become part of the Compliance Plan upon approval by the Executive Director. The purpose is to provide the permittee with the flexibility to alter the groundwater monitoring system and Corrective Action System designs, as necessary, to proactively address changing environmental conditions without modification or amendment to the Compliance Plan.
 - a. Corrective Action Observation (CAO) Wells to evaluate the lateral and vertical extent of groundwater contamination in the Uppermost Aquifer and evaluate the effectiveness of the remediation program.
 - b. Corrective Action System (CAS) Wells to remediate and/or contain contaminated groundwater.
 - c. Attenuation Monitoring Point (AMP) Wells, located within the migration pathway of a chemical of concern, which demonstrates that Attenuation Action Levels (AALs) representing critical Protective Concentration Levels (PCLs) established as the GWPS will not be exceeded at the applicable point of exposure.
 - d. Supplemental Wells to gauge hydrogeologic conditions of the aquifer.
- 3. Groundwater Corrective Action System to effect withdrawal, treatment, and/or containment of contaminated groundwater and non-aqueous phase liquids (NAPLs) by means of recovery wells, interceptor trenches, bioremediation, air sparging and/or another alternate Corrective Action System design. Any alternate Corrective Action System designs proposed by the permittee subsequent to issuance of this Compliance Plan that are equivalent to or exceed the performance of the Corrective Action Systems approved herein shall become part of the Compliance Plan upon approval by the Executive Director. The type of Corrective Action System in operation at the facility and an evaluation of system performance shall be reported in accordance with CP Table VII.
- 4. Collection and conveyance system to store recovered groundwater and NAPLs, if found, prior to disposal at authorized facilities. If the recovered groundwater is characteristically hazardous and/or is contaminated with listed hazardous waste and the collection system does not meet the wastewater treatment unit exemption under 30 TAC Sections 335.2(f) and 335.41(d), the collection system shall comply with the following regulations: 1) If the contaminated groundwater is stored for less than ninety (90) days without a permit or interim status, then the container and tank

Permit No. 50178 Continuation Sheet 29 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[XI.B.4.]

collection systems shall comply with provisions of 30 TAC Section 335.69(a)(1) / 40 CFR Part 265 Subparts I and J; 2) If the contaminated groundwater is stored for more than ninety (90) days, then the container and tank collection system shall comply with the provisions of 30 TAC Section 335.152(a)(7) & (8) / 40 CFR Part 264 Subparts I and J. The collection and conveyance system shall consist of the following components.

- a. A groundwater corrective action system.
- b. A groundwater storage system.
- c. Appurtenances for the collection and conveyance of recovered contaminated groundwater and NAPLs, if applicable.
- 5. Treatment system to reduce the concentration of hazardous constituents in contaminated groundwater to the GWPS specified in CP Table III by means of biological, physical, and chemical treatment processes.
- Groundwater containment system to inhibit contaminated groundwater above CP Table III GWPS from migrating beyond the influence of the corrective action system.
- 7. Reinjection of fresh or recovered groundwater, after treatment, into the contaminated aquifer in accordance with 30 TAC Section 331.9-10.
- 8. The following handling methods are authorized for recovered groundwater having concentrations of hazardous constituents exceeding the GWPS:
 - Treatment through an on-site wastewater treatment system and discharge via a permitted outfall in compliance with a current industrial wastewater discharge permit.
 - b. Treatment of recovered groundwater by means of air stripping and carbon adsorption. The air stripper shall be maintained in compliance with applicable air quality regulations.
 - c. Disposal at permitted deep injection well facility.
 - d. Disposal at other authorized on-site facility or permitted off-site facility.
 - e. Any other treatment methods approved by the Executive Director.

The method(s) utilized for handling, disposing and recording volumes of all recovered/purged contaminated groundwater shall be reported in accordance with CP Table VII.

9. Recovered NAPLs, if found, shall be managed (treated, stored, and disposed), or recycled in an authorized on-site unit(s) or an off-site facility.

Permit No. 50178 Continuation Sheet 30 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[XI.B.]

10. The Corrective Action Program shall consist of the system components listed in Provisions XI.B.1. through XI.B.9., to be operated according to the plans and specifications as approved in <u>Provision XI.C.1.</u> and the specifications of this Compliance Plan.

- If groundwater recovery wells are utilized in the Corrective Action System, the flow rate at each recovery well shall be set and recorded once a week. This weekly flow rate data shall be used to calculate an annual total flow which shall be reported in accordance with CP Table VII of this Compliance Plan.
- b. All Corrective Action System components shall be maintained in a functional and leak-free condition. All above ground collection system pipes shall be inspected weekly. In addition, the area surrounding the wells shall be inspected weekly for visible signs indicating leaks in buried sections of the collection system. If a release of reportable quantity is detected in any part of the collection system, it must be reported within twenty-four (24) hours to the local TCEQ Region Office, and immediate action must be taken to stop the release and resolve the problem.
- The permittee shall notify the Executive Director of any scheduled or nonscheduled periods of Corrective Action System shutdown, Corrective Action System malfunction, or treatment system shutdown for maintenance lasting more than thirty (30) days. The permittee shall notify the Executive Director in writing no later than seven (7) days following the date the permittee determines that the shutdown will last more than thirty (30) days. All shutdowns and malfunctions, irrespective of duration, shall be recorded in the facility's inspection log, and shall be reported in accordance with CP Table VII.

Compliance Monitoring Systems:

- 11. Groundwater monitoring system may at a minimum consist of the following categories of wells listed in CP Table V, to monitor groundwater quality. An application to modify or amend the Compliance Plan is required to change the category or the wells listed in CP Table V.
 - Background Well(s) that is unaffected by the operation of the facility.
 - b. POC Wells to demonstrate compliance with the GWPS.
 - POE Wells to demonstrate compliance with the GWPS.
 - d. APOE Wells to demonstrate compliance with the GWPS at a location other than the prescribed POE.

C. General Design and Construction Requirements

1. All plans submitted with the Compliance Plan Application referenced in <u>Provision</u> XI.A.7., concerning the design, construction, and operation of the authorized components of the Corrective Action and Groundwater Monitoring Programs and/or groundwater Compliance Monitoring Program, are approved subject to the terms established by this Compliance Plan. All plans must comply with this Compliance

Permit No. 50178 Continuation Sheet 31 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[XI.C.1.]

Plan and TCEQ Rules. Any alternate Corrective Action System design proposed by the permittee subsequent to issuance of this Compliance Plan that are equivalent to or exceed the performance of the Corrective Action Systems approved herein shall become part of the Compliance Plan upon approval by the Executive Director.

2. Well Design, Construction, Installation, Certification, Plugging and Abandonment **Procedures and Specifications**

For all wells to be constructed after issuance of this Compliance Plan that do not meet the well construction specifications identified in CP Attachment C of this permit, the permittee shall submit to the Executive Director the proposed well location and construction diagram for approval at least ninety (90) days in advance of the anticipated date of installation or in accordance with an approved schedule for installation. These requirements may be met through submittal of a work plan by the permittee and subsequent approval by the Executive Director. Well installation shall commence upon written approval of the Executive Director. Wells constructed prior to issuance of this Compliance Plan may be utilized as groundwater monitoring wells if they meet the standards of CP Attachment C or are otherwise authorized by issuance of the Compliance Plan.

Unless the permittee proposes an alternate well design that will result in wells of equivalent performance, each well installed after issuance of this Compliance Plan shall follow the design specifications contained in Attachment CP Attachment C of this permit. The permittee shall follow the certification and reporting requirements for installation of new, plugging/abandonment and replacement of existing wells as specified in CP Attachment C of this permit and CP Table VII.

- 3. The permittee shall not install or maintain any drinking water or supply wells that are screened within plumes of groundwater contamination at the facility.
- D. Corrective Action and Compliance Monitoring Objectives and the Groundwater **Protection Standard**

Corrective Action and Compliance Monitoring Objectives for units specified in CP Table I

- The GWPS defines the concentration limits of hazardous constituents, with respect to groundwater quality restoration in the Uppermost Aquifer and any lower interconnected aguifers, which are to be achieved at the POC, (and POE and APOE, if applicable) and beyond in accordance with Provision XI.E.1. by operation of the Corrective Action Program and/or Compliance Monitoring Program at this facility.
- 2. POC Wells are designated in CP Attachment A and further defined for purposes of this Compliance Plan by CP Table V, which also identifies the POE (and APOE, if any) Wells for which groundwater monitoring procedures will apply (Permit Section XI.F.).
- For Corrective Action, the hazardous constituents detected in groundwater are specified in Column A of CP Table III and IIIA. For Compliance Monitoring, hazardous constituents that are reasonably expected to be in or derived from waste placed in the units and that are to be monitored annually at the POC are listed in

Permit No. 50178 Continuation Sheet 32 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[XI.D.3.]

Column A of CP Table IV. The hazardous constituents detected in the groundwater are specified in Column A of CP Table IVA. Additional constituents shall be added to CP Tables IIIA (Corrective Action) and IVA (Compliance Monitoring) through a Compliance Plan modification or amendment in accordance with Provision XI.J.4. Groundwater analysis for each hazardous constituent shall utilize an analytical method, listed in the EPA SW-846 and as listed in the July 8, 1987 edition of the Federal Register and later editions, which is capable of measuring the concentration of the hazardous constituent at a level equal to or less than the corresponding value specified in CP Tables III, IIIA and IVA and equal to the quantitation level specified in CP Table IV except when matrix interference prevents achievement of that level.

- The GWPS are specified in Column B of CP Tables III, IIIA (Corrective Action) or IVA (Compliance Monitoring). The GWPS shall be the values for statistical comparisons unless CP Tables III, IIIA or IVA are amended in accordance with current guidance and regulations, or if any other accepted levels are promulgated by the TCEQ or the EPA. The values in CP Tables III, IIIA or IVA will change as updates to 30 TAC Section 335.160 and Chapter 350 are promulgated. The Executive Director or the permittee may request to replace concentration limits through a modification or amendment to this Compliance Plan in accordance with 30 TAC Section 305 Subchapter D.
- 5. Compliance Period for each unit is specified in CP Table VI.
- 6. The GWPS Achieved for Corrective Action and Compliance Monitoring Programs.

Corrective Action Program:

- Achievement of the GWPS, in accordance with Provision XI.E.1., is defined by the results of the data evaluation of Provision XI.F.4., wherein the concentrations of hazardous constituents have been reduced by the Corrective Action Program (Permit Section XI.E.) to concentrations of hazardous constituents that do not exhibit a statistically significant increase or exceed the concentration limits when directly compared to the GWPS of CP Table III.
- b. If the GWPS is achieved at the RCRA-regulated units or waste management areas, in accordance with Provision XI.E.1., during the Compliance Period, the permittee may apply to modify or amend this Compliance Plan to revise the Corrective Action Program to the extent necessary to demonstrate by means of the Groundwater Monitoring Program that the GWPS will not be exceeded during the remainder of the Compliance Period.
- If the GWPS is not achieved at the RCRA-regulated units or waste management areas, in accordance with Provision XI.E.1., during the Compliance Period, the Corrective Action Program must continue until the GWPS has not been exceeded in all wells for that corrective action area for three (3) consecutive years.
- d. If the GWPS established in this Compliance Plan for the RCRA-regulated unit or waste management area have not been exceeded for three (3) consecutive years at the end of the Compliance Period, then the permittee must, within ninety (90) days, submit an application for a Compliance Plan/Permit modification or amendment to establish a Compliance Monitoring Program or a Detection

Permit No. 50178 Continuation Sheet 33 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[XI.D.6.d.]

Monitoring Program for the aquifer(s) during the remaining portion of the thirty (30) year post-closure care period in accordance with 40 CFR Part 264.117. If the thirty (30) year post-closure care period has expired, the permittee may request groundwater monitoring for that RCRA-regulated unit or waste management area be discontinued. Until approval of the request, the permittee shall continue groundwater monitoring under current Compliance Plan provisions for each RCRA-regulated unit or waste management area.

- If the GWPS established in this Compliance Plan for SWMUs and/or AOCs listed in CP Table I, Item C have not been exceeded for three (3) consecutive years in all wells for that unit, then the permittee may apply for a modification or amendment to the Compliance Plan to terminate the Corrective Action Program for that unit.
- If the GWPS established by this Compliance Plan for those units/areas listed in CP Table I, Item D (regarding alternative corrective action requirements for commingled plumes) have not been exceeded for three (3) consecutive years for all wells for those units/areas, and the performance standards of 30 TAC Sections 335.8 and 335.167 are met, then the permittee may apply for a modification or amendment to the Compliance Plan to terminate the Corrective Action Program for those units/areas.

Compliance Monitoring Program:

- 7. Compliance with the GWPS for each well is defined by the results of the data evaluation of Provision XI.F.4., wherein the concentrations of hazardous constituents do not exhibit a statistically significant increase (SSI) or exceed the concentration limits when directly compared to the concentration limits of CP Table IVA. If any POC (and/or POE, if any) Well of CP Table V is non-compliant with the GWPS at any time during the Compliance Monitoring Program, the permittee shall respond and report according to CP Table VII. The groundwater Compliance Monitoring Program established by this Compliance Plan shall extend until expiration of the Compliance Period specified in CP Table VI. At the end of the Compliance Period, the permittee shall either:
 - Submit a permit modification or amendment request to re-establish a Detection Monitoring Program under 30 TAC Section 335.164 for the remaining portion of the thirty (30) year post-closure care period in accordance with 40 CFR Part 264.117 if none of the hazardous constituents are detected at concentrations equal to or greater than the values listed in CP Table IV. Until approval of the request, the permittee shall continue groundwater monitoring under current Compliance Plan provisions;
 - b. Continue monitoring under the Compliance Monitoring Program if any hazardous constituent continues to be detected at concentrations equal to or greater than the value listed in CP Table IV and the GWPS in CP Table IVA is not exceeded during remaining portion of the thirty (30) year post-closure care period; or

Permit No. 50178 Continuation Sheet 34 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[XI.D.7.]

c. If the thirty (30) year post-closure care period has expired and hazardous constituents continue to be detected in groundwater by Compliance Monitoring Program, then the permittee may request groundwater monitoring be discontinued if the GWPS of CP Table IVA are not exceeded at the end of the Compliance Period. Until approval, the permittee shall continue groundwater monitoring under current Compliance Plan provisions.

E. Corrective Action Program

The Corrective Action Program applies to units specified in CP Table I, Items A, C, and D. The Corrective Action Program shall remediate, recover, and/or contain contaminated groundwater from the Uppermost Aquifer and any interconnected lower aquifers, if applicable. The Corrective Action Program shall consist of the system components of Permit Section XI.B., to be operated according to the specifications of this Compliance Plan. The permittee shall conduct the Corrective Action Program until the performance standards of <u>Provision XI.E.1.</u> are met. The permittee shall initiate the Corrective Action Program immediately upon issuance of this Compliance Plan, except where other specific TCEQ response deadlines may apply.

1. Performance Standard

The permittee shall conduct the Corrective Action Program to remedy the quality of groundwater by removing or treating in place the hazardous constituents so as to achieve the concentration limits specified in the GWPS of Section XI.D. in accordance with the following:

- a. At the POC (POE, and APOE, if any) and between the POC (POE, and APOE, if any) and the downgradient facility property line;
- b. Beyond the facility boundary where necessary to protect human health and the environment, unless the permittee demonstrates to the satisfaction of the Executive Director that, despite the permittee's best efforts, the necessary permission from the property owner(s) was not received to undertake such action. 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;
- c. Operate the Corrective Action System so as to intercept, contain and/or treat the contamination in the Uppermost Aquifer unless the system is under repair or maintenance;
- d. Recommend changes to the configuration of the Corrective Action System at any time that it is determined that the contamination present in the Uppermost Aquifer, deeper zone, or any interconnected lower aquifers is not being effectively contained and/or remediated; and
- The permittee is required to actively remove NAPLs from the Uppermost Aquifer and any interconnected aquifers wherever found, to the extent technically practicable.

Permit No. 50178 Continuation Sheet 35 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[XI.]

F. Groundwater Monitoring Program Requirements

The permittee shall install, operate and maintain the Groundwater Monitoring System to evaluate the compliance status of the waste management units under the Compliance Monitoring Program, or to evaluate the effectiveness of the Corrective Action Program for those units undergoing remediation, as applicable. The Groundwater Monitoring System, shall be composed of wells specified in CP Table V, and shall include at a minimum Background, Point of Compliance, and other wells as necessary which have been approved by the Executive Director (e.g. POE and APOE, etc.).

1. Waste Management Area Specific Background Groundwater Quality

The permittee may submit to the Executive Director for review and approval a plan to determine site-specific background values of the naturally-occurring hazardous constituents of CP Table III, IIIA (for Corrective Action) or CP Table IVA (for Compliance Monitoring) in lieu of the concentration limits given in these Tables. The plan shall include appropriate background well locations and screened intervals, well sampling schedules, and methodology for determining and expressing background values in a form appropriate for the statistical evaluation of the monitoring results. Once background values have been established, the permittee shall submit a modification or amendment, in accordance with Provision XI.J.4., to add background values.

2. Sampling and Analysis Plan

- a. Wells shall be sampled according to the Sampling and Analysis Plan referenced in Provision XI.A.7. The Sampling and Analysis Plan is hereby incorporated into the Compliance Plan by reference as if set out fully herein. The permittee or the Executive Director shall propose modifications to the plan, as necessary to reflect current methods in EPA SW-846 and ASTM Standard Test Methods or other methods accepted by the TCEQ. The laboratory methods utilized for groundwater analysis shall be capable of measuring concentration of each hazardous constituent equal to or less than the values in CP Table III, IIIA or IVA. Any and all revisions to the plan shall become conditions of this Compliance Plan at the beginning of the first quarter following approval by the Executive Director.
- b. An up-to-date and approved Sampling and Analysis Plan shall be maintained at the facility and made available for inspection upon request.

3. Sampling and Analysis Frequencies and Parameters

- a. Frequencies of sampling are defined below:
 - (1) "Week" and "month" shall be based upon a calendar week and month;
 - (2) "Quarter" shall be based on divisions of the calendar year (i.e., January through March, April through June, July through September, October through December);

Permit No. 50178 Continuation Sheet 36 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[XI.F.3.a.]

(3) "Semiannual" shall be based on divisions of the calendar year (i.e., January through June, July through December) and consist of two consecutive quarters;

- (4) "Annual" or "Year" shall be four consecutive quarters, beginning with the first quarter. Years shall be designated consecutively, beginning with the "first year", "second year", etc; and
- (5) "Calendar year" shall be based on divisions of the calendar (i.e. January through December).
- b. Sampling of wells shall commence upon issuance of this Compliance Plan as according to schedule in Compliance Plan Table VII. Data evaluations shall be completed within sixty (60) days of collection of the last sample unless QA/QC procedures show that data is unacceptable and re-analyses or re-sampling must be performed. In such cases, the Executive Director will be notified as soon as it becomes apparent that the sixty (60) day time limit will not be met.
- c. In the first and subsequent years of groundwater monitoring, the wells shall be sampled and analyzed according to the following schedules:
 - (1) Corrective Action Monitoring for units specified in CP Table I, Items A, C, and D.
 - (a) Each Background, POC, POE, and APOE Well listed in CP Table V; and AMP if applicable, CAO, and CAS Well depicted in Attachment A shall be sampled and analyzed annually for the constituents of CP Table IIIA until the achievement of the GWPS in accordance with Provision XI.D.6.
 - (b) Each CAO Well, AMP Well (if applicable), and CAS Well shall continue to be sampled, according to Section XI.D., until any changes to these groups of wells are approved by the Executive Director pursuant to Provision XI.B.3.
 - (c) Each Well of CP Table V shall be sampled for the constituents of CP Table IIIA, according to Provision XI.D.3., until analytical results satisfy the GWPS of CP Table IIIA for all wells of CP Table V of that unit or area for two consecutive sampling events. All wells listed in CP Table V shall then be sampled and analyzed annually for the constituents of CP Table III until all constituents of CP Table III are below the GWPS for all CP Table V Wells of that unit or area in accordance with Provision XI.D.6.
 - (d) If the GWPS is achieved in all wells (Background, POC, POE, APOE, AMP, CAO, and CAS), in accordance with <u>Provision XI.D.6.a.</u>, then the permittee may apply to modify or amend the Compliance Plan according to <u>Provisions XI.D.6.b.</u>, XI.D.6.d., XI.D.6.e., or <u>XI.D.6.f.</u>
 - (e) Any well with NAPLs detected in the wellbore shall be considered as non-compliant with the GWPS and is not required to be analyzed for the constituents of CP Table III or IIIA.

Permit No. 50178 Continuation Sheet 37 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[XI.F.3.c.]

(2) Compliance Monitoring for units specified in CP Table I, Item B.

- (a) If data evaluation is performed in accordance with <u>Provision XI.F.4.a.</u>, one sample from each well of CP Table V shall be taken and analyzed annually for the constituents of CP Table IVA. If data evaluation is performed in accordance with Provision <u>XI.F.4.b.</u>, a sequence of at least four independent samples from each well of CP Table V shall be taken and analyzed annually for the constituents of CP Table IVA; and
- (b) One sample from each well of CP Table V shall be taken and analyzed annually for constituents in CP Table IV according to schedule of CP Table VII. Analysis for the hazardous constituents of CP Table IV and CP Table IVA may be accomplished with the same sample when sampling events coincide.
- d. Field Determination Requirements All Wells Specified in CP Table VII (Item 12).
 - (1) Water level measurements relative to Mean Sea Level shall be measured to within 0.01 ft and shall be performed during each sampling event effective immediately with issuance of this Compliance Plan. Measurements shall be taken in all monitor wells specified in this Compliance Plan.
 - (2) Field determinations of pH, temperature and Specific Conductivity are required for all wells of CP Table V and as depicted in CP Attachment A excluding wells containing NAPLs. Turbidity in nephelometric turbidity units is required if micro-purging techniques are utilized during sample collection.
 - (3) Field observations including descriptions of appearance (clarity, color, etc.) shall be recorded annually for all wells of CP Table V and wells depicted in CP Attachment A, excluding wells containing NAPL.
 - (4) The total depth of each well which is not equipped with a dedicated pump shall be measured during each sampling event. Total depth of each well which is equipped with a dedicated pump shall be measured when: 1) pumps are removed for maintenance; or 2) the groundwater production rate of the dedicated pump decreases by 25% from the initial production rate when the pump was installed. The measured total depth shall be compared to the total depth recorded on the well construction log. Should a comparison of the measured and the recorded total depth reveal that greater than 20% of the well screen has been silted in, the permittee shall perform such actions necessary (redevelopment, replacement, etc.) to enable the well to function properly.
 - (5) All wells specified in CP Table VII (Item 12) shall be inspected during each sampling event in accordance with specifications in the Sampling and Analysis Plan. Repairs or a proposal for replacement for any affected well shall be performed within ninety (90) days of the routine sampling event inspection which identified the problem well.

Continuation Sheet 38 of 47

Permit No. 50178

Permittee: U.S. Department of the Army – Red River Army Depot

[XI.F.]

4. Data Evaluation Procedures

Data evaluation in accordance with this provision shall be performed for all wells within sixty (60) days of collection of the last sample for the duration of the Corrective Action Monitoring and Compliance Monitoring programs. When evaluating the monitoring results of each well, pursuant to Section XI.F., for the constituents of CP Tables III or IIIA for corrective action monitoring, or CP Tables IV or IVA for compliance monitoring, the permittee shall either:

a. Corrective action monitoring: Directly compare the value of each constituent to the respective concentration limit of CP Table III or IIIA and determine if it is less than, equal to, or greater than the concentration limits. If the values for all the constituents are less than or equal to the respective concentration limits, then the well shall be considered compliant with the GWPS for the sampling event. If one or more constituent value is greater than the respective concentration limit, then the well shall be considered non-compliant with the GWPS for the sampling event; or

Compliance monitoring: Directly compare the value of each constituent to the respective concentration limit of CP Table IV or IVA and determine if it is less than, equal to, or greater than the listed value. For constituents listed in CP Table IV that are not also listed in CP Table IVA, if constituents are detected at concentrations equal to or greater than the value listed in CP Table IV, then the procedures of Provision XI.G.2.b. apply. For constituents listed in CP Table IVA, if the values for all the constituents are less than or equal to the respective concentration limits of CP Table IVA, then the well shall be considered compliant with the GWPS for the sampling event. If one or more constituent value is greater than the respective concentration limit, then the well shall be considered non-compliant with the GWPS for the sampling event and the procedures of Provision XI.G.2.a. apply; or

- b. Compare the value of each constituent to its respective concentration limit of CP Table III or IIIA for corrective action monitoring, or CP Table IV or IVA for compliance monitoring, using one of the following procedures:
 - (1) The Confidence Interval Procedure for the mean concentration based on a normal, log-normal, or non-parametric distribution. The 95 percent confidence coefficient of the t-distribution will be used in constructing the confidence interval (Chapter 21 of Statistical Analysis of Groundwater Data at RCRA Facilities-Unified Guidance, U.S. EPA, March 2009), and subsequent updates acceptable to the Executive Director. The confidence interval upper limit for each constituent shall be compared with the corresponding concentration limit in CP Table III or IIIA for corrective action monitoring, or CP Table IV or IVA for compliance monitoring. To be considered in compliance, the confidence interval upper limit for a well in question must not exceed the tabled concentration limit. A confidence interval upper limit above the tabled concentration limit shall be considered as evidence of statistically significant contamination; or,

Permit No. 50178 Continuation Sheet 39 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[XI.F.4.b.]

(2) An alternative statistical method proposed by the permittee and approved by the TCEQ. Any proposed alternative method must be appropriate with respect to distributional assumptions and must provide reasonable control of both false positive and false negative error rates.

c. Within thirty (30) days of an initial data evaluation that determines concentration limits have been exceeded in a well, pursuant to <u>Provisions XI.F.4.a.</u> or <u>XI.F.4.b.</u>, the permittee may resample and repeat the analysis to verify concentration limits have been exceeded. If the second analysis indicates that the sample does not exceed the concentration limits, then the well shall be considered compliant with the concentration limits for the sampling event.

G. Response and Reporting

- 1. Corrective Action Monitoring for units specified in CP Table I, Items A, C, or D (if alternative corrective action requirements apply).
 - a. If the permittee or the Executive Director determines that the Corrective Action Program required by this Compliance Plan no longer satisfies the requirements of 30 TAC Section 335.166 or Section 335.167, the permittee must, within ninety (90) days of either the permittee's determination or Executive Director's notification, submit an application for a Compliance Plan modification or amendment to make any appropriate changes to the Corrective Action Program which will satisfy the regulations.
 - b. If the Executive Director determines that the lateral or vertical extent of groundwater contamination is not delineated, the permittee must, within ninety (90) days of the date of the Executive Director's notification unless otherwise directed, initiate an investigation to determine the extent of the contamination based on the Practical Quantitation Limit (PQL), Method Quantitation Limit (MQL), or other applicable standard as required or approved by the Executive Director.
 - c. This section applies only if POEs are defined in CP Table V and a GWPS is assigned at the POE; and attenuation action level (if applicable) is assigned to its respective attenuation monitoring point. If during two (2) consecutive sampling events the GWPS is exceeded at the POE, or the attenuation action level (if applicable) is exceeded at its respective attenuation monitoring point, then within ninety (90) days of completing the data evaluation of the second sampling event, the permittee must:
 - (1) Install groundwater recovery wells or alternate Corrective Action System design to mitigate the downgradient migration of the contaminant plume; and/or
 - (2) Reevaluate the criteria originally used to establish the GWPS, in accordance with <u>Provision XI.D.4.</u>, and submit an application to modify or amend the Compliance Plan to address the GWPS exceedance; and/or reevaluate the criteria originally used to establish the attenuation action level and submit an analysis to the Executive Director for approval to request changes to the attenuation action level.

Permit No. 50178 Continuation Sheet 40 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[XI.G.]

2. Compliance Monitoring for units specified in CP Table I, Item B

- a. Compliance with the GWPS for each POC (POE and APOE, if applicable) Well of CP Table V is defined by the results of the data evaluation of Provision XI.F.4., wherein the concentrations of hazardous constituents do not exhibit a statistically significant increase or exceed the concentration limits when directly compared to the concentration limits of CP Table IVA. If the permittee determines that any concentration limit of CP Table IVA is being exceeded pursuant to the procedures used in Provision XI.F.4. at any POC (POE, and APOE, if applicable) Well of CP Table V, then the permittee must notify the Executive Director of this finding in writing within seven (7) days. The notification must identify what concentration limits have been exceeded and indicate that the permittee will either:
 - (1) Submit a Compliance Plan modification or amendment to the Executive Director to establish a Corrective Action Program meeting the requirements of 30 TAC Section 335.166 within 180 days of such determination in accordance with 30 TAC Section 335.165(8)(B);
 - (2) Demonstrate that a source other than the regulated unit caused the exceedance of the concentration limits of CP Table IVA or that the concentration is an artifact caused by errors in sampling, analysis, or statistical evaluation or natural variation in the groundwater within ninety (90) days in accordance with 30 TAC Section 335.165(9); or
 - (3) Re-evaluate the criteria originally used to establish the concentration limits of the GWPS to determine if a Corrective Action Program is necessary. If it is determined that revised concentration limits will result in a GWPS that is protective of human health and the environment, then the permittee may request to replace the concentration limits of the GWPS through a modification or amendment to this Compliance Plan in accordance with Provision XI.D.6. Such a request must be submitted within ninety (90) days and may require a proposal for additional groundwater monitoring wells to verify attenuation of the contaminant plume to levels that are protective of human health and the environment.
- b. If the permittee detects CP Table IV constituents at concentration levels equal to or greater than the listed Quantitation Limit and which exceed background groundwater quality in groundwater samples from POC (POE, APOE, if any) Wells of CP Table V that are not already identified in CP Table IVA as monitoring constituents, then the permittee must either:
 - (1) Report the concentration of the newly detected constituents to the Executive Director within seven (7) days after the completion of the analysis. Within ninety (90) days after the completion of the analysis, the permittee shall submit a modification or amendment application, in accordance with Provision XI.J.4., requesting that the constituent be added to the CP Table IVA. The request shall propose a concentration limit for the GWPS based on 30 TAC Section 335.160 for each constituent; or

Permit No. 50178 Continuation Sheet 41 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[XI.G.2.b.]

(2) Resample within thirty (30) days of the initial findings and repeat the CP Table IV analysis. If the second analysis does not confirm the presence of the newly detected constituents, then the permittee shall continue monitoring under the current Compliance Plan provisions. If the second analysis confirms the presence of the newly detected constituents, then the permittee shall report the concentration of these additional constituents to the Executive Director within seven (7) days after the completion of the second analysis. Within ninety (90) days after completion of the second analysis, the permittee shall submit a modification or amendment application, in accordance with Provision XI.J.4., requesting that the confirmed constituents be added to the CP Table IVA. The request shall propose a concentration limit for the GWPS based on 30 TAC Section 335.160 for each constituent.

- c. If the permittee or the Executive Director determines that the Compliance Monitoring Program required by this Compliance Plan no longer satisfies the requirements of 30 TAC Section 335.165, the permittee must, within ninety (90) days of either the permittee's determination or Executive Director's notification, submit a Compliance Plan application, in accordance with Provision XI.J.4., to make changes to the Compliance Monitoring Program which will satisfy the regulations.
- 3. For Corrective Action and Compliance Monitoring Programs, the permittee shall submit a groundwater monitoring report(s) in accordance with the frequency specified in Column B, CP Table VII, and contain the information listed in CP Table VII required for the specific program(s) that are applicable.
- H. Corrective Action and Interim Corrective Measures (ICMs) for Solid Waste Management Units
 - 1. Corrective Action Obligations

The permittee shall conduct corrective action as necessary to protect human health and the environment for all releases of hazardous waste, hazardous constituents listed in Appendix VIII and/or 40 CFR Part 264, Appendix IX and/or other COCs from any SWMU and/or AOC according to 30 TAC Section 335.167. Corrective action shall consist of an Affected Property Assessment (APA), determination of protective concentration levels, selection of a remedy standard (if necessary), development and implementation of a response action (if necessary), and submittal of required reports according to 30 TAC Chapter 350.

In the case of SWMUs and/or AOC that have been grandfathered under 30 TAC Chapter 335, Subchapters A and S, Risk Reduction Standards (RRS), corrective action shall consist of the RCRA Facility Investigation (RFI) and if necessary, Interim Corrective Measures (ICM), Baseline Risk Assessment (BLRA), Corrective Measures Study (CMS) and Corrective Measures Implementation (CMI). For grandfathered SWMUs and/or AOC, the permittee may continue to complete the corrective action requirements under 30 TAC Chapter 335, Subchapters A and S,

Permittee: U.S. Department of the Army – Red River Army Depot

[XI.H.1.]

provided the permittee complies with the notification and schedule requirements pursuant to 30 TAC Sections 335.8 and 350.(2)(m). If on the basis of the APA/RFI, it is determined that COC have been or are being released into the environment, the permittee may be required to conduct necessary ICMs and/or corrective actions.

Upon Executive Director's review of corrective action obligations, the permittee may be required to perform any or all of the following:

- a. Conduct investigation(s);
- b. Provide additional information;
- c. Investigate additional SWMU(s) and/or AOC(s); and/or
- d. Submit an application for a modification/amendment to a Compliance Plan to implement corrective action.

Any additional requirements must be completed within the time frame(s) specified by the Executive Director.

- 2. The permittee shall conduct an RFI/APA for the SWMUs and/or AOC listed in CP Table II, in accordance with <u>Provision XI.A.5.</u>, and for any new SWMUs and/or AOC discovered after the issuance of this Compliance Plan in accordance with <u>Provision XI.A.6</u>.
- 3. Variance From Investigation

The permittee may elect to certify that no COCs are currently or never have been present or managed in a SWMU and/or AOC referenced in <u>Provision XI.H.2.</u> in lieu of performing the investigation required in <u>Provisions XI.H.1.</u> and <u>XI.H.4.</u>, provided that confirming data is submitted for the current and past waste(s) managed in the respective unit or area. The permittee shall submit such information and certification(s) on a unit-by-unit basis in the time frame required in <u>Provision XI.H.4.</u> for review and approval by the Executive Director of the TCEQ. Should the permittee fail to demonstrate and certify that COCs are not or were not present in a particular unit, the investigation required in <u>Provisions XI.H.1.</u> and <u>XI.H.4.</u> shall be performed for the SWMU and/or AOC.

4. RCRA Facility Investigation (RFI)/Affected Property Assessment (APA)

Within sixty (60) days from the date of issuance of this Compliance Plan and/or approval of the RFA Report of <u>Provision XI.A.5.</u>, the permittee shall submit a schedule for completion of the RFI(s)/APA to the Executive Director for review and approval. The permittee shall initiate the investigations in accordance with the approved schedule and guidance contained in the EPA publication EPA/520-R-94-004, OSWER Directive 9902.3-2A, RCRA Corrective Action Plan (Final), May 1994 and in accordance with state regulations referenced in <u>Provision XI.H.1.</u> The results of the RFI/APA must be appropriately documented in a report and submitted to the Executive Director for approval within the time frame established in the approved schedule. The Report shall be considered complete when the full nature and extent of the contamination, the QA/QC procedures and the Data Quality Objectives are

Permittee: U.S. Department of the Army – Red River Army Depot

[XI.H.4.]

documented to the satisfaction of the Executive Director. The permittee shall propose or conduct ICMs, as necessary, to protect human health and the environment.

5. Remedy Selection

Upon approval of RFI Report/APA Report (APAR), if it is determined that there has been a release of COCs into the environment, which poses a potential risk to human health and the environment, then the permittee shall propose a remedy in accordance with the 30 TAC Chapter 335, Subchapters A and S, Risk Reduction Standards (if applicable), the TRRP rules, or as otherwise authorized by the Executive Director. This may require a BLRA and/or CMS Report to be submitted for review and approval within the time frame(s) specified by the Executive Director. For facilities that are grandfathered under 30 TAC Chapter 335, Subchapter S, this report shall address RRS requirements, and the applicable items contained in the EPA publications referenced in <u>Provision XI.H.4.</u> or other guidance acceptable to the Executive Director. For projects conducted under TRRP, the risk assessment process shall be addressed in the APAR and the evaluation of corrective measures shall be conducted as part of the remedy standard selection process.

6. Corrective Measures Implementation (CMI)/Remedial Action Plan (RAP)

If on the basis of the RFI and/or BLRA and/or CMS or APA, it is determined that there is a risk to the human health and environment, then the permittee shall submit for approval a CMI Work Plan(s) or propose a response action (TRRP) within 180 days of receipt of approval of the RFI and/or BLRA/CMS Report or APAR unless otherwise extended by the Executive Director. The CMI Workplan shall address all of the applicable items contained in the EPA publications referenced in Provision XI.H.4. or other guidance acceptable to the Executive Director. Response actions, including TRRP Remedy Standard A or Risk Reduction Standard (RRS) No. 2, cannot be self implemented as normally allowed by TRRP or RRS because under Hazardous Solid Waste Amendments (HSWA) corrective action and permit provisions requires the CMI workplan to be reviewed prior to approval and public participation (see also <u>Provision XI.H.7.</u>). For TRRP response actions, the permittee shall submit a RAP in accordance with schedules and requirements of 30 TAC Chapter 350. The CMI Workplan or RAP shall contain detailed final proposed engineering design, monitoring plans and schedule to implement the selected remedy and assurances of financial responsibility for completing the corrective action. Upon completion of the response action, the permittee shall submit a CMI Report or Response Action Completion Report (RACR) to the TCEQ for review and approval. The CMI Report shall address all the applicable items in the EPA publications EPA/520-R-94-004, OSWER Directive 9902.3-2A, RCRA Corrective Action Plan (Final), May 1994 or other guidance acceptable to the Executive Director. The RACR shall address all the applicable items in Title 30 TAC Chapter 350 and applicable guidance.

If the response action does not propose a permanent remedy (e.g., RRS No. 3 or Remedy Standard B), or the response action requires long-term groundwater monitoring in order to demonstrate attainment of a permanent remedy (e.g., monitored natural attenuation to demonstrate Remedy Standard A), the permittee must submit a CMI Workplan or RAP as part of a Compliance Plan application

Permittee: U.S. Department of the Army – Red River Army Depot

[XI.H.6.]

and/or modification/amendment in accordance with Provision XI.J.4. to establish corrective action and provide financial assurance to satisfy the requirements of 30 TAC Section 335.167. The Compliance Plan application and/or modification/amendment must be submitted within 180 days of approval of the CMS/BLRA or APAR. The permittee may propose an alternative schedule to be approved by the Executive Director to incorporate several approved CMI Workplans or RAPs into a single Compliance Plan modification/or amendment when CMI Workplans or RAP schedules coincide. Implementation of the corrective measure(s) shall be addressed through issuance of a new or modified/amended Compliance Plan.

To report the progress of the corrective measures, the permittee shall submit to the TCEQ CMI Progress Reports or RAERs (TRRP) semiannually as a section of the Compliance Plan report required by CP Table VII of this Compliance Plan, or as otherwise directed.

If deed recordation and necessary institutional controls are required as part of the final corrective action, the permittee shall within ninety (90) days of approval for the final corrective action submit to the Executive Director for review and approval the required proof of deed notice in accordance with Provision XI.J.1.

7. Public Notice

- The permittee shall conduct public notice when:
 - (1) CMI Work Plan or RAP is submitted to the Executive Director, in accordance with Provision XI.H.6., which contains the proposed final corrective measure for SWMU(s) and/or AOC(s) from which a release has occurred, and with proposed institutional control (as applicable). This process occurs through Compliance Plan renewal, or modification/amendment; or
 - (2) If on the basis of the RFI/BLRA or APAR required by Provisions XI.H.4. and XI.H.5., it is determined the release from SWMU(s) and/or AOC(s) meets the performance standards under RRR or TRRP such that no remedy is needed, there is no risk to the human health and environment, and the permittee seeks approval of no further action determination by the Executive Director. This process occurs through corrective action process.
- b. No public notice is required when it is determined based on the results of the RFA required by Provision XI.A.6., or the RFI or APAR required by Provision XI.H.4., that no release occurred from a SWMU and/or AOC.

The purpose of the public notice is to give the members of the public the opportunity to submit written comments on the proposed corrective measure(s) or proposed no further action determination. Refer to Attachment B of this Compliance Plan for further guidance on public notice participation in HSWA corrective action.

8. Interim Corrective Measures (ICM)

Permit No. 50178 Continuation Sheet 45 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[XI.H.8.]

The ICM apply to waste management units or AOC under investigation for which a final Corrective Action Program has not been authorized by the Compliance Plan. ICM also apply to units/AOC that are discovered after issuance of this Compliance Plan.

- The objectives of the ICM are to remove, decontaminate, and/or stabilize the source (i.e., waste and waste residues) and contaminated media to protect human health and the environment. The permittee shall modify the ICM, as necessary, to achieve these objectives.
- The permittee is authorized to design, construct, operate and maintain ICM for waste management units/AOC as necessary to protect human health and the environment. The ICM shall be operated until final corrective measures established, in accordance with <u>Provision XI.H.6.</u>, are authorized in the Compliance Plan. At a minimum, the ICM shall consist of the following:
 - (1) Specific performance goals to protect human health and the environment;
 - (2) A monitoring system to evaluate the ICM and determine if the objectives outlined in Provision XI.H.8.b. are being met. All ICM wells must comply with the requirements of Provision XI.C.2. and CP Attachment C, Well Design and Construction Specifications, of this permit;
 - (3) An implementation schedule to initiate ICMs;
 - (4) Submittal of a report specifying the design of the ICM upon installation. During implementation of the ICM, periodic ICM Status Reports shall be submitted in accordance with CP Table VII (Item 25) to document the objectives of Provision XI.H.8.b. are being achieved; and
 - (5) A procedure to modify the design, as necessary, to achieve the objectives outlined in Provision XI.H.8.b.
- Financial Assurance (Not Applicable)
- **General Provisions**
 - 1. Deed Recordation Requirements

For waste and contaminated media approved to remain in place above background or health-based concentration levels after completion of the corrective action and/or groundwater monitoring programs, the permittee shall record an instrument in the county deed records for the facility to specifically identify the areas of contamination exceeding background or health-based values. The deed certification shall follow the requirements of 30 TAC Sections 335.560 and 335.569 or 30 TAC Section 350.111, where applicable.

2. Notification Requirements

Permittee: U.S. Department of the Army – Red River Army Depot

[XI.J.2.]

The permittee shall notify the local TCEQ region office at least ten (10) days prior to any well installation or sampling activity required by the Compliance Plan in order to afford Region personnel the opportunity to observe these events and collect samples. This notification requirement will not apply to the routine semiannual or annual groundwater sampling events specified in this Compliance Plan.

3. Distribution of Copies

The permittee shall submit all schedules, plans, and reports required by this Compliance Plan according to the following distribution list:

- An original and one copy to the Corrective Action Section, Mail Code MC-127, Remediation Division, Texas Commission on Environmental Quality in Austin, Texas: and
- b. One copy to the Waste Program, Texas Commission on Environmental Quality Region 5 Office in Tyler, Texas.

4. Compliance Plan Modification or Amendment

Any application to modify or amend the Compliance Plan shall be accomplished in accordance with the provisions of 30 TAC Chapter 305 Subchapter D and submitted in accordance with the Compliance Plan Application's general instructions.

- 5. Any changes to the Corrective Action or Groundwater Monitoring Systems are subject to Executive Director's approval.
- 6. The permittee shall maintain all reports, monitoring, testing, analytical, and inspection data obtained or prepared pursuant to the requirements of this Compliance Plan, including graphs and drawings, in the operating record at the facility. The operating record at the facility shall be made available for review by the staff of the TCEQ upon request.
- 7. The permittee shall submit a compliance schedule in accordance with CP Table VIII.

K. Force Majeure

The permittee's non-compliance with one or more of the provisions of this Compliance Plan may be justified only to the extent and for the duration that non-compliance is caused by a "Force Majeure" event. For purposes of this Compliance Plan, "Force Majeure" is defined as an event that is caused by an Act of God, labor strike, or work stoppage, or other circumstance beyond the permittee's control that could not have been prevented by due diligence, and that makes substantial compliance with the applicable provision or provisions of this Compliance Plan impossible.

The occurrence of a "Force Majeure" event that justifies the missing of one deadline shall not automatically justify the missing of later deadlines unless there is a cumulative effect due to such an event. The permittee shall keep a record of any delaying events.

Permit No. 50178 Continuation Sheet 47 of 47

Permittee: U.S. Department of the Army – Red River Army Depot

[XI.K.]

If the permittee anticipates or experiences an inability to comply with any of the provisions of this Compliance Plan due to a "Force Majeure" event, the permittee shall notify the Executive Director of the TCEQ within twenty-four (24) hours. A written notice must be submitted to the TCEQ within ten (10) days, which describes the nature, cause, and anticipated length of the delay and all steps which the permittee has taken and will take, with a schedule for their implementation, to avoid or minimize the delay. In the event that performance of any of the activities required by this Compliance Plan is affected by a "Force Majeure" event, then the permittee shall propose a plan for approval by the Executive Director of the TCEQ, for achieving the objectives of the Compliance Plan by alternative means in the most timely manner.

Table III.D. - Inspection Schedule

Facility Unit(s) and Basic Elements	Possible Error, Malfunction, or Deterioration	Frequency of Inspection
Container Storage Area-	Leaking containers and deterioration of	Weekly
Building 293 container storage area	containers and containment system	
Building 346 container storage area		
Building 479 container storage area		
Equipment leaks-	Liquid dripping from pump seal	Weekly
Pumps in light liquid service,	Potential leaks found by visual, audible, or	Sensor daily
compressors	olfactory observation	Audible alarm-monthly
Pumps and valves in heavy liquid service,		Monitored within 5 days of detection
pressure relief valves, flanges, connectors		
Facility communications system-	Electrical or mechanical malfunction	Weekly
Emergency alarm system	·	
Telephone system		į
Two-way radios (mobile and stationary)	n-11. C 11.	YAY -1.1-
Fire control equipment-	Portable fire extinguishers may lose pressure	Weekly
Portable fire extinguishers Water hose streams	Possible deterioration of foam producing equipment and water hose delivery systems	Static testing of water system pressure is inspected annually
Foam producing equipment	equipment and water nose derivery systems	is hispected annually
Foam producing equipment	Improper operation of decontamination	Visually inspected Weekly
Decontamination equipment-	equipment may cause malfunction;	Visually inspected vveckly
Eye Wash/Safety Showers	Deterioration of equipment or non-replacement	
Lyc Wash, Salety Showers	of consumable equipment	
Spill control equipment-	Improper operation of decontamination	Weekly
Concrete Berms	equipment may cause malfunction;	
Absorbents-	Deterioration of equipment or non-replacement	
Bagged Oil Socks, Particulate Absorbent	of consumable equipment	
Landfill-	Area of cap erosion, slope deterioration,	Quarterly
Ordnance Training Center Landfill	unhealthy vegetation, water ponding	

Table III.E.2. - Emergency Coordinators

Name	Home Address	Office Phone(s) and/or Pager	Home Phone(s)
Primary:			
Andrew Pagely	301 Sharlotte Drive New Boston, TX 75570	903-334-3628	903-628-7446
Stan Cossey	#4 Henry Lane Texarkana, TX 75503	903-334-4676	903-490-4564
Alternates:			
Brad Thornton	7421 FM 1398 Hooks, TX 75561	903-334-3627	903-547-2692
Bruce Dinsmore	525 Central Avenue Wake Village, TX 75501	903-334-2851	903-832-4996
David Thomas	1303 Hudson Street Texarkana, TX 75503	903-334-4761	903-691-9008
Glen Sisk	1102 Earnest Road Texarkana, TX 75503	903-334-3498	903-278-1546
Jeff Gschwind	1410 Richmond Road Texarkana, TX 75503		

Permit No. 50178 Continuation Sheet 1 of 3
Permittee: U.S. Department of the Army – Red River Army Depot

TABLE III.E.3. – EMERGENCY EQUIPMENT

Equipment Location		Physical Description	Capabilities	
Absorbent boom	Building 421 North	Eighteen, 10ft x 5 in, each	Spill Containment	
Absorbent pads	Building 421 North	One Hundred, 24 in x 12 in x 1 in, each	Spill Containment	
Absorbent socks	Building 421 North	Four, 3 ft x 1 ft, each	Spill Containment	
Air packs	Building 421 North	Eight each, Scott Air	Inhalation Protection	
Boric acid	Building 421 North	Four jars	Spill Containment and Neutralization	
Boots, rubber	Building 421 North	Five, assorted sizes	Dermal Protection	
Cartridges, respirator	Building 421 North	Ten, HEPA	Inhalation Protection	
Coveralls	Building 421 North	Twelve pair, Poly coated	Dermal Protection	
Generator	Building 421 North	One, 110 Volt, gasoline powered	Power Generation	
Gloves	Building 421 North	Twelve pair, assorted	Dermal Protection	
Gloves	Building 421 North	Fourteen pair, surgical	Dermal Protection	
Kit, repair	Building 421 North	One each, drum and tank repair	Equipment Repair	
Liners, glove	Building 421 North	Twenty-four pair	Dermal Protection	
Liner	Building 421 North	Three rolls, 40 mil plastic	Spill Containment	
Pig Putty	Building 421 North	One-half case	Equipment Repair	
Sprayer, pump	Building 421 North	One each	Spill Containment	
Suit, responder, Level A	Building 421 North	Three suits	Dermal/Inhalation Protection	
Suit, responder, Level B	Building 421 North	Seven suits	Dermal Protection	
Tape, barricade	Building 421 North	Seven rolls	Barricade Construction	
Treatment oil, microbial	Building 421 North	Eight gallons	Spill Containment	
Vests, E-Z Cool	Building 421 North	Three each	Heat Protection	
Air Packs	Emergency Response Trailer	Six each	Inhalation Protection	
Level A encapsulated suit	Emergency Response Trailer	Six suits	Inhalation and Dermal Protection	
Level B encapsulated suit	Emergency Response Trailer	Six suits	Dermal Protection	
Level B non- encapsulated suit	Emergency Response Trailer	Six suits	Dermal Protection	
Level C yellow Tyvek suit	Emergency Response Trailer	Six suits	Dermal Protection	
Boric acid	Emergency Response Trailer	Four jars	Spill Containment and Neutralization	
Hand towel	Emergency Response Trailer	Two buckets	Decontamination	
Bung Wrench	Emergency Response Trailer	One each	Spill Containment/ Drum Repair	
Haz Mat Tape	Emergency Response Trailer	One roll	Barricade Construction	
Danger Tape	Emergency Response Trailer	One roll	Barricade Construction	
pH paper	Emergency Response Trailer	One each	Spill Containment/Hazard Assessment	
Rubber Draw Mat	Emergency Response Trailer	One roll	Spill Containment	

Permit No. 50178 Continuation Sheet 2 of 3
Permittee: U.S. Department of the Army – Red River Army Depot

TABLE III.E.3. – EMERGENCY EQUIPMENT, continued

Equipment	Location	Physical Description	Capabilities	
Face Shield	Emergency Response Trailer	Three each	Dermal Protection	
Chem Tape	Emergency Response Trailer	Two rolls	Dermal Protection	
Water Cooler	Emergency Response Trailer	One each	Heat Protection	
Cups (sleeve)	Emergency Response Trailer	One each	Heat Protection	
Poly Plastic, Black	Emergency Response Trailer	One roll	Spill Containment	
Spray Bottle (oil eater)	Emergency Response Trailer	One each	Spill Containment	
Oil Eater	Emergency Response Trailer	One bottle	Spill Containment	
Sodium Bicarbonate	Emergency Response Trailer	One box	Spill Containment	
First Aid Kit	Emergency Response Trailer	One kit	Emergency First Aid	
Ear Plugs	Emergency Response Trailer	One box	Hearing Protection	
Safety Glasses	Emergency Response Trailer	One box	Dermal Protection	
Acid/Base Pads	Emergency Response Trailer	One roll	Spill Containment	
Universal Pads	Emergency Response Trailer	Three rolls	Spill Containment	
Oil Only Pads	Emergency Response Trailer	One tub	Spill Containment	
Butyl Glove	Emergency Response Trailer	Eighteen pair	Dermal Protection	
Orange Cones	Emergency Response Trailer	Eight truck cones	Barricade Construction	
Gel Absorbent	Emergency Response Trailer	One bucket	Spill Containment	
Drum Repair Kit	Emergency Response Trailer	One kit	Equipment Repair	
Pig Pillows, Solvent	Emergency Response Trailer	Five each	Spill Containment	
Duct Tape	Emergency Response Trailer	One roll	Barricade Construction/Dermal Protection	
Paint Marker	Emergency Response Trailer	One each	Drum Identification	
Hand towels	Emergency Response Trailer	Two boxes	Decontamination	
Óil Ónly booms	Emergency Response Trailer	Ône case	Spill Containment	
Hazmat Smart Strips	Emergency Response Trailer	Sixteen badges	Worker Safety	
Respirator Wipes	Emergency Response Trailer	Önê böx	Decontamination	

TABLE III.E.3. – EMERGENCY EQUIPMENT, continued

	T B		1
Absorbent	Emergency Response Trailer	Six bags	Spill Containment
Microbes	Emergency Response Trailer	Two bags	Spill Containment
Bench	Emergency Response Trailer	One each	Worker Safety, Stable Work Area
Salvage Drum	Emergency Response Trailer	One, 85 gallon open-top	Spill Containment
Steel Drum	Emergency Response Trailer	One, 55 gallon open-top	Spill Containment
Over Pack Drum	Emergency Response Trailer	One, 85 gallon open-top	Spill Containment
Plastic Drum	Emergency Response Trailer	One, 55 gallon open-top	Spill Containment
Chairs, folding	Emergency Response Trailer	Two each	Worker Safety
Square table, folding	Emergency Response Trailer	One each	Stable Work Area
Extension Cords, 100 foot	Emergency Response Trailer	Two each	Supplies Electricity from Generator
Rope, 100 foot	Emergency Response Trailer	One each	Equipment Tie-down
Wrench, 15/16	Emergency Response Trailer	One each	Equipment Repair
Drum Liner	Emergency Response Trailer	One box	Spill Containment
Socket and wrench, 15/16	Emergency Response Trailer	One each	Equipment Repair
GFCI Outlet	Emergency Response Trailer	Two each	Protection from Electrical Hazards
Push Broom	Emergency Response Trailer	Four each	House Keeping
Regular Broom	Emergency Response Trailer	Two each	House Keeping
Squeegee	Emergency Response Trailer	Two each	House Keeping
Flat nose shovel	Emergency Response Trailer	One each	Spill Containment
Sharp nose shovel	Emergency Response Trailer	Two each	Spill Containment
Sharp shooter shovel	Emergency Response Trailer	One each	Spill Containment
Scoop shovel	Emergency Response Trailer	One each	Spill Containment
Post Hole digger	Emergency Response Trailer	One each	Spill Containment
Foam Wire Safety Covers	Emergency Response Trailer	Two each	Protection from Electrical Hazards
Plastic Drum (55 gal.) W/ 50 lbs of Soda Ash	Emergency Response Trailer	One drum	Spill Containment and Neutralization

TABLE IV.B. - WASTES MANAGED IN PERMITTED UNITS

No.	Waste	EPA Hazardous Waste Numbers	TCEQ Waste Form Codes and Classification Codes
1	Paint residue - paint, solvents and liquids		
2	Dried paint with cans	Doo6, Doo7, Doo8, Do15, Do18, Do19, Do28, Do35, Do39, Do40, Do43, Fo03, Fo05	409H
3	Liquid paint with cans	D001, D006, D007, D008, D015, D018, D019, D028, D035, D039, D040, D043, F003, F005	219H
4	Steam bay sludge	Doo2, Doo6, Doo7, Doo8, Foo2	519H
5	Waste acids	D002, D004, D006, D007, D008, D009, D010, D011, F002	119H
6	Waste caustic	D001, D002, D005, D006, D007, D008, D010, D011, D021, D027, D029, D039, F002, F005	119H
7	Alodine	D002, D004, D005, D006, D007, D008, D009, D010, D011	119H
8	Cleaning solvents	D001, D002, D006, D007, D008, D019, D022, D028, D029, D035, D040, F001, F002, F003, F005	204H
9	Blasting media	D001, D004, D005, D006, D007, D008, D009, D010, D011, D035, F003, F005	319H
10	Contaminated antifreeze from tear- down processes and automotive shops	D001, D004, D006, D007, D008, D018, D019, D021, D035, F002, F003, F005	296Н
11	Contaminated motor fluids generated from tear-down process of military vehicles	Doo1, Doo4, Doo6, Doo7, Doo8, Do18, Do19, Do29, Do35, Do39, Foo2, Foo3, Foo5	206H
12	Contaminated industrial hydraulic fluids generated from draining of industrial equipment	Doo1, Doo4, Doo6, Doo7, Doo8, Do18, Do19, Do21, Do35, Foo2, Foo3, Foo5	205H
13	Paint or adhesive filters including paper and cardboard containing paint and non-halogenated solvent mixture	Doo1, Doo6, Doo7, Doo8, Do15, Do18, Do19, Do28, Do35, Do39, Do40, Do43, Foo3, Foo5	409H
14	Contaminated socks and filters generated from blasting operations	Doo6, Doo7, Doo8	319H
15	Chemical vat filters, liners and gaskets	D002, D004, D005, D006, D007, D008, D009, D010, D011	207H

TABLE IV.B. - WASTES MANAGED IN PERMITTED UNITS, continued

No.	Waste	EPA Hazardous Waste Numbers	TCEQ Waste Form Codes and Classification Codes
16	Contaminated absorbents	Doo1, Doo4, Doo6, Doo7, Doo8, Do18, Do19, Do21, Do29, Do35, Do39, Foo2, Foo3, Foo5	409H
17	Soil, contaminated	D002, D005, D006, D007, D008, D018, D019, D021, D029, D035, D039, D040, F001, F002, F003, F005, F006	301H
18	COE soil borings	D005, D006, D007, D008, D020, D029, F001, F002, F005	302H
19	Adhesives, preservatives, sealants, and epoxies, liquid	D001, D002, D003, D006, D007, D008, D011, D029, D035, D038, D040, D043, F002, F003, F005, U159, U161, U220	210H
20	Photographic chemical waste; may contain metals	D002, D007, D011	119H
21	Waste batteries	Doo1, Doo2, Doo3, Doo6, Doo7, Doo8, Doo9, Do11	309H
22	Lab packs, off spec (mixed D-, P- and U-listed wastes)	Doo1, Doo2, Doo3, Doo4, Doo5, Doo6, Doo7, Doo8, Doo9, Do10, Do11, Do15, Do18, Do19, Do28, Do29, Do30, Do35, Do39, Do40, Do43, Poo4, Po10, Po15, Po41, Po51, Uoo2, Uoo8, Uo19, Uo37, Uo43, Uo44, Uo45, Uo51, Uo52, Uo80, Uo87, U102, U117, U122, U123, U140, U151, U154, U159, U161, U165, U188, U220, U225, U226, U228, U239, U240, U411	001H
23	Wood and other contaminated construction debris	Doo6, Doo7, Doo8, Do26, Do37	488H
24	Unused, off spec, inorganic liquids	D002, D004, D005, D006, D007, D008, D009, D010, D011, D019, D026, D028, D029	119H
25	Unused, off spec, organic liquids	D001, D002, D003, D007, D008, D010, D011, D015, D018, D019, D026, D028, D029, D030, D035, D039, D040, D043, U226	219H
26	Organic acids (citric) and water mixtures	D002, D006, D007, D008	⁹ 219H
27	Unused, off spec organic solids	D005, D007, D010	409H
28	Absorbents contaminated with metals	D005, D006, D007, D008, D009	319H
29	Explosives contaminated solids	Doo3, Doo5, Doo8	405H

TABLE IV.B. - WASTES MANAGED IN PERMITTED UNITS, continued

No.	Waste	EPA Hazardous Waste Numbers	TCEQ Waste Form Codes and Classification Codes
30	Adhesives, preservatives, sealants and epoxies, solid	Doo1, Doo6, Doo7, Doo8, Do38, Do43, Foo2, Foo3, Foo5	403H
31	Filters, rags, absorbents contaminated with Break Through cleaner	Doo6, Doo7, Doo8	з10Н
32	Unused, off-spec inorganic solids	Doo1	319H
33	Waste mercury	D009	117H
34	Unused, off spec materials (Inorganic solids, metal salts/ chemicals)	Doo1, Doo2, Doo3, Doo7	316H
35	Metals contaminated radiator flushing solution	Doo2, Doo6, Doo7, Doo8, Do10	101H
36	Solid residue from thermal application of metals	Doo6, Doo7, Doo8	304Н
37	Unused, off spec P-listed material	P004, P010, P015, P041, P051, P077, P098	004H
38	Activated carbon contaminated with solvent(s)	D001, F001, F002	404H
39	Compressed, organic gas cylinders	Doo1, Doo3	801H
40	Water, GW Purge/Decon: Metals and solvent contaminated	Doo6, Doo7, Doo8, Do18, Do29, Do40, Do43, Fo01, Fo02, Fo03, Fo05	119Н
41	Soil, pesticides contaminated	Do20, Do31, Uo36, Uo60, Uo61	301H
42	Baghouse dust from dust collectors associated with fluidized bed	Doo6, Doo8	319Н
43	Universal waste blast media or paint related material	Doo6, Doo7, Doo8	490H
44	Inorganic Gasses	Doo1, Doo3	701H
45	Off spec fuels	Doo1, Doo6, Doo7, Doo8	219H
46	Organic paint, lacquer, varnish or paint related material	Doo1, Doo5, Doo6, Doo7, Doo8, Do35, Foo3, Foo5	209H

TABLE IV.B. - WASTES MANAGED IN PERMITTED UNITS, continued

No.	Waste	Waste EPA Hazardous Waste Numbers	
47	Waste Coolants	Doo6, Doo7, Doo8	119H
48	Grinding dust, filters or solid debris and residues contaminated with metals	Doo3, Doo4, Doo6, Doo7, Doo8	319H
49	Oxidizers for various applications	D001, D002, D003, D007, D008, D009, D035, U103	106H
50	Aqueous soaps and/or water mixtures	Doo2, Doo6, Doo7, Doo8, Foo1, Foo2, Foo3	115H
51	PPE gloves, clothing, protective wear	D001, D002, D003, D006, D007, D008, D018, F001, F002, F003	319H

TABLE IV.C. - SAMPLING AND ANALYTICAL METHODS

Waste No.1	Sampling Location	Sampling Method	Frequency	Parameter	Test Method ^{3,4,5}	Desired Accuracy Level
1	Point of generation	Coliwasa, Glass	Annually or upon change in process/ operation	Flashpoint TC Metals TC & total VOCs	SW1010 SW6000 or 7000 Series SW8260	(2)
2	Point of generation	Scoop, Shovel	Annually or upon change in process/ operation	TC Metals TC & total VOCs	SW6000 or 7000 Series SW8260	(2)
3	Point of generation	Coliwasa/ Thief, glass	Annually or upon change in process/ operation	Flashpoint TC Metals TC & total VOCs	SW1010 SW6000 or 7000 Series SW8260	(2)
4	Point of generation	Scoop, Shovel, Dipper	Annually or upon change in process/ operation	Corrosivity TC metals	SW 9040 or SW 9045 SW 6000 or 7000 Series	(2)
5	Point of generation	Coliwasa, glass	Annually or upon change in process/ operation	Corrosivity TC metals	SW 9040 or SW9045 SW 6000 or 7000 Series	(2)
6	Point of generation	Coliwasa, glass	Annually or upon change in process/ operation	Corrosivity TC metals TC & total VOCs	SW 9040 or SW 9045 SW 6000 or 7000 Series SW8260	(2)
7	Point of generation	Coliwasa, glass	Annually or upon change in process/ operation	Corrosivity TC metals	SW 9040 or SW 9045 SW 6000 or 7000 Series	(2)
8	Point of generation	Coliwasa, glass	Annually or upon change in process/ operation	Flashpoint TC metals TC & total metals	SW 1010 SW 6000 or 7000 Series SW 8260	(2)
9	Point of generation	Scoop, Shovel, Dipper	Annually or upon change in process/ operation	TC metals	SW 6000 or 7000 Series	(2)
10	Point of generation	Coliwasa, glass	Annually or upon change in process/ operation	Flashpoint TC metals TC & total VOCs	SW 1010 SW 6000 or 7000 Series SW 8260	(2)

TABLE IV.C. - SAMPLING AND ANALYTICAL METHODS, continued

Waste No.1	Sampling Location	Sampling Method	Frequency	Parameter	Test Method3,4,5	Desired Accuracy Level
11	Point of generation	Coliwasa, Glass Bottle	Annually or upon change in process/ operation	Flashpoint TC metals TC & total VOCs	SW1010 SW 6000 or 7000 Series SW 8260	(2)
12	Point of generation	Coliwasa, Glass Bottle	Annually or upon change in process/ operation	Flashpoint TC metals TC & total VOCs	SW 1010 SW 6000 or 7000 Series SW 8260	(2)
13	Point of generation	Scoop	Annually or upon change in process/ operation	Flashpoint TC metals TC & total VOCs	SW 1010 SW 6000 or 7000 Series SW 8260	(2)
14	Point of generation	Scoop	Annually or upon change in process/operation	TC metals	SW 6000 or 7000 Series	(2)
15	Point of generation	Scoop	Annually or upon change in process/operation	TC metals	SW 6000 or 7000 Series	(2)
16	Point of generation	Scoop	Annually or upon change in process/ operation	TC metals TC & total VOCs	SW 6000 or 7000 Series SW 8260	(2)
17	Point of generation	Scoop	Annually or upon change in process/ operation	TC metals TC & total VOCs	SW 6000 or 7000 Series SW 8260	(2)
18	Point of generation	Scoop	Annually or upon change in process/ operation	TC metals TC & total VOCs	SW 6000 or 7000 Series SW 8260	(2)
19	Point of generation	Coliwasa, glass	Annually or upon change in process/ operation	Flashpoint Corrosivity TC metals TC & total VOCs	SW 1010 SW 9040 or SW 9045 SW 6000 or 7000 Series SW 8260	(2)
20	Point of generation	Coliwasa, glass	Annually or upon change in process/ operation	Corrosivity TC metals	SW 9040 or SW 9045 SW 6000 or 7000 Series	(2)
21	Point of generation	N/A	N/A	Process knowledge	N/A	(2)
22	N/A	N/A	N/A	Not analyzed	N/A	N/A

TABLE IV.C. - SAMPLING AND ANALYTICAL METHODS, continued

Waste.	No.¹	Sampling Location	Sampling Method	Frequency	Parameter	Test Method ^{3,4,5}	Desired Accuracy Level
23		Point of generation	Coliwasa, glass	Annually or upon change in process/ operation	TC metals TC & total VOCs Semivolatile organics	SW 6000 or 7000 Series SW 8260, 8270 or 8015	(2)
24		Point of generation	N/A	Annually or upon change in process/ operation	MSDSs	N/A	(2)
25		Point of generation	N/A	Annually or upon change in process/ operation	MSDSs	N/A	(2)
26		Point of generation	Coliwasa, glass	Annually or upon change in process/ operation	Corrosivity TC metals	SW 9040 or SW 9045 SW 6000 or 7000 Series	(2)
27		Point of generation	N/A	Annually or upon change in process/ operation	MSDSs	N/A	(2)
28		Point of generation	Scoop, Shovel	Annually or upon change in process/ operation	TC metals	SW 6000 or 7000 Series	(2)
29		Point of generation	Scoop	Annually or upon change in process/ operation	Nitroaromatics/ Nitramines TC metals	SW 8330 SW 6000 or 7000 Series	(2)
30		Point of generation	Coliwasa, Glass/ of MSDSs	Annually or upon change in process/ operation	Flashpoint TC metals TC & total VOCs	SW 1010 SW 6000 or 7000 Series SW 8260	(2)
31		Point of generation	Coliwasa, Glass	Annually or upon change in process/ operation	Flashpoint TC metals TC & total VOCs Semi-volatile organics	SW 1010 SW 6000 or 7000 Series SW 8260, 8270 or 8015	(2)
32		N/A	N/A	Not analyzed	Not analyzed	N/A	N/A
33		Point of generation	Scoop	Annually or upon change in process/ operation	TC metals	SW 6000 or 7000 Series	(2)
34		N/A	N/A	Not analyzed	MSDSs	N/A	N/A
35		Point of generation	Coliwasa	Annually or upon change in process/ operation	TC metals	SW 6000 or 7000 Series	(2)
36		Point of generation	Coliwasa, Scoop	Annually or upon change in process/operation	TC metals	SW 6000 or 7000 Series	(2)

TABLE IV.C. - SAMPLING AND ANALYTICAL METHODS, continued

Waste No.1	Sampling Location	Sampling Method	Frequency	Parameter	Test Method3,4,5	Desired Accuracy Level
37	N/A	N/A	Not analyzed	MSDSs	N/A	N/A
38	Point of generation	Scoop, Shovel	Annually or upon change in process/ operation	TC metals TC & total VOCs	SW 6000 or 7000 Series SW 8260	(2)
39	N/A	N/A	Not analyzed	MSDSs	N/A	N/A
40	Point of generation	Coliwasa	Each GW monitoring event	TC metals TC & total VOCs	SW 6000 or 7000 Series SW 8260	(2)
41	Point of generation	Dipper, Shovel, Scoop	Multi phase investigation	Pesticides	SW 8081	(2)
42	Point of generation	Dipper, Shovel, Scoop	Annually or upon change in process/ operation	TC metals	SW 6000 or 7000 Series	(2)
43	Point of generation	Dipper, Shovel, Scoop	Annually or upon change in process/ operation	TC metals	SW 6000 or 7000 Series	(2)
44	N/A	N/A	Not analyzed	MSDSs	N/A	N/A
45	Point of generation	Coliwasa/ Thief, glass	Annually or upon change in process/ operation	Flashpoint TC Metals	SW1010 SW6000 or 7000 Series	(2)
46	Point of generation	Coliwasa, glass	Annually or upon change in process/ operation	Flashpoint TC metals TC & total VOCs semi-volatile organics	SW 1010 SW 6000 or 7000 Series SW 8260, 8270 or 8015`	(2)
47	Point of generation	Dipper, Shovel, Scoop	Annually or upon change in process/ operation	TC metals	SW 6000 or 7000 Series	(2)
48	Point of generation	Scoop	Annually or upon change in process/ operation	TC metals Total VOCs	SW 6000 or 7000 Series SW 8260	(2)
49	Point of generation	Coliwasa, Glass	Annually or upon change in process/ operation	Flashpoint pH	SW 6000 or 7000 Series	(2)
50	Point of generation	Coliwasa, Dipper	Annually or upon change in process/ operation	TC metals Total VOCs pH	SW 1010 SW 6000 or 7000 Series	(2)

Continuation Sheet 5 of 5

Permittee: U.S. Department of the Army – Red River Army Depot

TABLE IV.C. - SAMPLING AND ANALYTICAL METHODS, continued

V	Vaste No.1	Sampling Location	Sampling Method	Frequency	Parameter	Test Method3:4:5	Desired Accuracy Level
	51	Point of generation	Scoop	Annually or upon change in process/ operation	Flashpoint TC metals VOCs	SW 1010 SW 6000 or 7000 Series	(2)

¹from Table IV.B, first column

²Accurate enough to meet SW-846 methods to determine if hazardous waste.
³All analytical methods are from Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, except where noted.

⁴Toxic Characteristic Leaching Procedure (TCLP) extraction method SW-1311 may not always be necessary for some waste streams.

⁵These methods are revised as required by regulation.

Continuation Sheet 1 of 1

Permit No. 50178

Permittee: U.S. Department of the Army - Red River Army Depot

TABLE V.B. CONTAINER STORAGE AREAS

No.*	Container Storage Area	N.O.R. Unit #	Rated Capacity	Dimensions	Containment Volume (including rainfall for unenclosed areas)	Unit will manage Ignitable,¹ Reactive,¹ or Incompatible² Waste (state all that apply)
1	Building 293 CSA	001	420, 55-gallon drums	38 by 95 ft	9,000 gallons	Ignitable, Reactive and Incompatible
2	Building 346 CSA	003	270, 55-gallon drums	35 by 55 ft	4,800 gallons	Ignitable, Reactive and Incompatible
3	Building 479 CSA	017	736, 55-gallon drums	80 by 100 ft	21,500 gallons	Ignitable, Reactive and Incompatible

¹Containers managing ignitable or reactive waste must be located at least 15 meters (50 feet) from the facility's property line.

²Incompatible waste must be separated from other waste or materials stored nearby in other containers, piles, open tanks, or surface impoundments by means of a dike, berm, wall, or other device. Provide in the engineering report a description of the procedures used to ensure compliance with 40 CFR 264.17 and 264.177.

^{*}If the unit is already permitted, use the established "Permit Unit No." If the unit is not yet permitted, the number given here for the unit will become the "Permit Unit No." The numbers should be in an order that will be convenient for the facility operator.

Permittee: U.S. Department of the Army – Red River Army Depot

TABLE V.K. - MISCELLANEOUS UNITS

List the miscellaneous units covered by this application to be permitted. List the waste managed in each unit and the rated capacity or size of each unit.

No.*	Miscellaneous Unit	N.Q.R. Unit #	Storage, Processing, and/or Disposal	Waste Nos. ¹	Rated Capacity	Dimensions	Unit will manage Ignitable², Reactive², or Incompatible² Waste (state all that apply)
7	Open burn area #1	008	Processing	47	600 tons/year	400 x 700 ft	Ignitable and Reactive
8	Open burn area #2	009	Processing	47	750 tons/year	500 x 500 ft	Ignitable and Reactive
9	Open detonation area	010	Processing and disposal	48	1,500 tons/year	1,000 x 800 ft	Ignitable and Reactive
			.,,				
	4					·	
			· · · · · · · · · · · · · · · · · · ·			**************************************	

¹from Table IV.B, first column

²Describe in the engineering report the procedures used to ensure compliance with 40 CFR 264.17.

^{*}If the unit is already permitted, use the established "Permit Unit No." If the unit is not yet permitted, the number given here for the unit will become the "Permit Unit No." The numbers should be in an order that will be convenient for the facility operator.

Continuation Sheet 1 of 1

Permit No. 50178 Permittee: U.S. Department of the Army – Red River Army Depot

Table VII.G. - Post-Closure Period

Unit Name	Date Certified Closed	Permitted Post Closure Period (Yrs)	Date Post Closure Ends
Chromate Equalization Lagoon	August 9, 1989	30 years	August 9, 2019
OTC Landfill	December 23, 1983	30 years	December 23, 2013

Permittee: U.S. Department of the Army - Red River Army Depot

Continuation Sheet 1 of 2

CP Table I: Waste Management Units and Areas Subject to Groundwater Corrective Action and Compliance Monitoring

A. Corrective Action¹ (30 TAC Section 335.166)

Unit Name	Notice of Registration (NOR) Number, if applicable	Date Program Requirement and Remedy Standard Completed4
Ordnance Training Center (OTC) Area	011	RCRA closure approved 01/08/87.
Waste Pile (Sludge Drying Beds)	005	RCRA closure approved 4/28/05.

B. Compliance Monitoring¹ (30 TAC Section 335.165)

Unit Name	Notice of Registration (NOR) Number, if applicable	Date Program Requirement and Remedy Standard Completed4
Chromate Equalization Lagoon (CEL)	004	RCRA closure approved 10/24/89.
Open Burn Area 1	008	A Preliminary Assessment of Soils approved 1/13/12.
Open Burn Area 2	009	A Preliminary Assessment of Soils approved 1/13/12.
Open Detonation Area	010	A Preliminary Assessment of Soils approved 1/13/12.

C. Corrective Action² (30 TAC Section 335.167)

Unit Name	Notice of Registration (NOR) Number, if applicable	Date Program Requirement and Remedy Standard Completed ⁴
Building 371 (battery shop) soils	J	Deed recordation approved 12/09/09 Remedy Standard B.
Soils underlying building 373 (dynamometer shop)	K	Deed recordation approved 12/09/09 Remedy Standard B.
Building 433, former rubber products building	G	Deed recordation approved 11/17/10. Remedy Standard B
Soils near transfer pumps, Building 473	012, AOC L	Deed recordation approved 12/09/09 Remedy Standard B.
Western Industrial Area (BLDGs 315, 333 and associated soils, 345, 341, 348, 350, Wastewater Treatment Area, Panther Creek and associated groundwater and soils)	A, NOR 032, NOR 040, AOC C, F, M, and N	Deed recordation approved 12/09/09 Remedy Standard B.

Permittee: U.S. Department of the Army - Red River Army Depot

CP Table I: Waste Management Units and Areas Subject to Groundwater Corrective Action and Compliance Monitoring, continued

D. Alternative Corrective Action³ (30 TAC Section 335.151)

Unit Name	Notice of Registration (NOR) Number, if applicable	Date Program Requirement and Remedy Standard Completed ⁴
1.[*unit name*]	паррисаме	Completed
2.	7.57 1.111	
3.		

Foot Note:

1. Program applies to RCRA-regulated units only.

2. Program applies to releases from solid waste management units (SWMUs) and/or areas of concern (AOCs).

3. Program applies to commingled releases from RCRA-regulated unit and from one or more SWMUs and/or AOCs.

4. Specify the date of Commissions No Further Action approval letter for program requirement and remedy standard completed for all media of concern.

Permit No. 50178 Continuation Sheet 1 of 2
Permittee: U.S. Department of the Army - Red River Army Depot

CP Table II: Solid Waste Management Units and/or Areas of Concern Addressed in Permit Section XI.H.

	NOD NO 1	Date Program
Unit Name	NOR Number, if applicable	Requirement and Remedy Standard Completed ¹
1. Surface Impoundment (Chromate EQ	004	RCRA closure approved 10/24/89.
Lagoon)		
2. Waste Pile (Sludge Drying Beds)	005	RCRA closure approved 4/28/05.
3. North Incinerator – Building 1027	006,	RACR approval and deed filing
	AOC I	approvals were received on 6/02/08 and 9/24/08.
4. South Incinerator – Building 1025	007, AOC I	RACR approval and deed filing approvals were received on 6/02/08 and 9/24/08.
5. Open Burn Area 1 (HE)	008	A Preliminary Assessment of Soils approved 1/13/12.
6. Open Burn Area 2 (Smokeless	009	A Preliminary Assessment of Soils
Powder)		approved 1/13/12.
7. Open Detonation Area	010	A Preliminary Assessment of Soils approved 1/13/12.
8. OTC Landfill	011	RCRA closure approved 01/08/87.
9. Three above ground storage tanks.	012, AOC L	Deed recordation approved 12/09/09
Currently for used oil, antifreeze, or TPH waste.	·	Remedy Standard B.
10. Landfill loc, approx. 1 mile east of Post 6 guard house on Elliot Lake Rd/Depot 1313 Landfill	019	TCEQ issued revocation of the permit with no requirement for further action 03/05/08.
11. Land application area for sludge from sludge lagoons	021	NOR closure approved 08/25/11.
12. Industrial WTP-chromate collection side	022	RCRA closure approved 09/29/06.
13. Industrial WTP-phosphate collection side	023	RCRA closure approved 09/29/06.
14. "X" sewage treatment plant	024	RACR approved 06/17/09. Remedy Standard A
15. "X" sewage treatment plant sludge drying beds	025	RACR approved 06/17/09. Remedy Standard A
16.T ransformer storage site. OTC area - concrete hardstand	029	NOR closure approved 03/08/10.
17. Intermediate and final lagoons within the IWTP	030	Deed recordation approved 01/10/02. RRR Standard No. 2.
18. Wood landfill (MSW Permit #1315)	034, AOC X	Permit revoked after determining that all post closure care requirements had been met 04/03/06.
19. WWT area, north and south storm water lagoons	035	RCRA closure approved 10/10/03. Remedy Standard A.
20. HW management unit for spent antifreeze and wash waters	044, AOC L	Deed recordation approved 12/09/09 Remedy Standard B.

Permittee: U.S. Department of the Army - Red River Army Depot

CP Table II: Solid Waste Management Units and/or Areas of Concern Addressed in Permit Section XI.H., continued

Unit Name	NOR Number, if applicable	Date Program Requirement and Remedy Standard Completed ¹
21. Western Industrial Area (WIA)	A, NOR 032, NOR 040,	Deed recordation approved 12/09/09
(BLDGs 315, 333 and associated soils,	AOC C, F, M, and N	Remedy Standard B.
345, 341, 348, 350, Wastewater		
Treatment Area, Panther Creek and		The state of the s
associated groundwater and soils)		
22. Building 265 Site/Pesticide Pit	В	Closure completed in 11/09/04. Remedy Standard A
23. Soils underlying building 341	A, C, F, M and N	Deed recordation approved 12/09/09
		Remedy Standard B.
24. Building 722 Site, Popping Furnace	Ē	RCRA closure approved 10/06/06. Remedy Standard A.
25. Building 350, former Ni-Cad battery shop	A, C, F, M and N	Deed recordation approved 12/09/09 Remedy Standard B.
26. Building 433 Site, (Former Rubber Products)	G	Deed recordation approved 11/17/10. Remedy Standard B
27. Soils surrounding former building 1027	I, NOR 006, NOR 007	Deed filing approval 9/24/08. Remedy Standard A
28. Building 371 Site, (Battery Shop)	J	Deed recordation approved 12/09/09 Remedy Standard B.
29. Building 373 Site	K	Deed recordation approved 12/09/09
(Engine Dynamometer Facility)		Remedy Standard B.
30. Soils near transfer pumps, Building 473	L	Deed recordation approved 12/09/09 Remedy Standard B.
31. Soil underlying building 345, north wash rack	A, C, F, M and N	Deed recordation approved 12/09/09 Remedy Standard B.
32. Building 315 transfer station	A, C, F, M and N	Deed recordation approved 12/09/09 Remedy Standard B.
33. DRMO Scrap Yard	0	Deed recordation approved 04/28/11 Remedy Standard B.
34. Vulcan Range	P	RI/FS approved 02/24/11
35. D-Area Y-Site D060201	Q	RI/FS approved 02/24/11.
36. Vulcan TD	Ř	RI Report recommended NFA, approved 07/13/10.
37. Tracer Test Range	Ś	RI/FS approved 02/24/11.
38. Grenade Range	Ť	RI Report recommended NFA, approved 07/13/10.
39. Demo Area Washrack/Storage/Trails	U	An RFI is underway at this site.
40. Demolition Area Creeks	V	An RFI is underway at this site.
41. Unpermitted Demolition Areas	W	An RFI is underway at this site.
42. Woodyard Landfill	X, NOR 034	Permit revoked after determining that
12) II Oody wa Landilli	1,11010054	all post closure care requirements had
		been met 04/03/06.
43. Hayes Treatment Plant	Ÿ	Remedy Standard A 03/14/05.
44. Building 172 Site	Y Z	Remedy Standard A 07/02/04.

Foot Note:

^{1.} Specify the date of Commissions No Further Action approval letter for program requirement and remedy standard completed for all media of concern.

Permit No. 50178 Continuation Sheet 1 of 6
Permittee: U.S. Department of the Army - Red River Army Depot

CP Table III: Corrective Action Program Table of Detected Hazardous and Solid Waste Constituents and the Groundwater Protection Standard

Unit Name	Column A Hazardous Constituents	Column B Groundwater Protection Standards (mg/l)	Column C (1.)Well Specific AAL (mg/l)
Ordnance Training Center (OTC) Area	Benzene	0.50 ^{GW} GW _{Class3}	
Center (OTC) Area	Chloromethane	16.0 ^{GW} GW _{Class3}	
	Carbon Disulfide	730.0 ^{GW} GW _{Class3}	
	1,1-Dichloroethane	1500.0 GW Class3	
	1,2-Dichloroethane	0.50 ^{GW} GW _{Class3}	
	1,1-Dichloroethene	0.70 ^{GW} GW _{Class3}	
	cis-1,2-Dichloroethene	7.00 ^{GW} GW _{Class3}	
	trans-1,2-Dichloroethene	10.0 ^{GW} GW _{Class3}	
	Toluene	100.0 GW Class3	
	1,1,1-Trichloroethane	20.0 GW Class3	
	1,1,2-Trichloroethane	0.50 ^{GW} GW _{Class3}	
	Trichloroethene	0.50 GW Class3	<u></u>
	Vinyl Chloride	0.20 ^{GW} GW _{Class3}	
	Xylenes	1000.0 GW Class3	
	Barium	200.0 GW Class3	
	Cadmium	0.50 ^{GW} GW _{Class3}	
	Chromium (Total)	10.0 ^{GW} GW _{Class3}	
	Lead	1.50 ^{GW} GW _{Class3}	
	Nickel	150.0 ^{GW} GW _{Class3}	
	Selenium	5.00 ^{GW} GW _{Class3}	
	Silver	37.0 ^{GW} GW _{Class3}	
	Zinc	2200.0 GW GW Class 3	
	Zinc	2200.0 UVClass3	
2. Sludge Drying Beds	Arsenic	0.093 ^{sw} GW	
	Cadmium	0.109 ^{sw} GW	
	Chromium	0.125 ^{SW} GW	
	Lead	0.220 ^{sw} GW	
-	Nickel	5.6 ^{sw} GW	
	Zinc	0.900 ^{BKG}	
	Chloroform	73.0 ^{GW} GW _{Class3}	
	1,1-Dichloroethane	4.93 ^{SW} GW	
	1,2-Dichloroethane	4.93 ^{sw} GW	
	1,1-Dichloroethene	0.390 ^{sw} GW	
	cis-1,2-Dichloroethene	7.0 ^{SW} GW	
	trans-1,2-Dichloroethene	10.0 ^{sw} GW	
	Toluene	0.177 ^{SW} GW	
	1,1,1-Trichloroethane	0.011 ^{sw} GW	
	Trichloroethene	0.257 ^{SW} GW	
2 D.:14: 271 (D at)	11 Dishloweeth ave	0.70 ^{GW} GW _{Class3}	, , , , , , , , , , , , , , , , , , ,
3. Building 371 (Battery Shop)	1,1-Dichloroethene cis-1,2-Dichloroethene	0.70° GW _{Class3} 7.00 ^{GW} GW _{Class3}	
	trans-1,2-Dichloroethene	7.00 GW Class3 10.0 GW Class3	
	trans-1,2-Dienioroethene	TU.U U W Class3	· · · · · · · · · · · · · · · · · · ·

CP Table III: Corrective Action Program Table of Detected Hazardous and Solid Waste Constituents and the Groundwater Protection Standard, continued

Unit Name	Column A	Column B Groundwater	Column C (1.)Well Specific
VIIII Name	Hazardous Constituents	Protection Standards	AAL
		(mg/l)	(mg/l)
	Trichloroethene	0.50 ^{GW} GW _{Class3}	
	Vinyl Chloride	0.20 ^{GW} GW _{Class3}	
	1,1,2-Trichloroethane	0.50 ^{GW} GW _{Class3}	
	Xylenes	1000.0 ^{GW} GW _{Class3}	
	Acetone	6600.0 ^{GW} GW _{Class3} 0.50 ^{GW} GW _{Class3}	
	Benzene	U.50° GW _{Class3}	
	tert-Butylbenzene	290 GW Class3	
	Carbon Disulfide	730 GW GW Class3	
	1,2-Dichlorobenzene	60.0 GW Class3	
	1,1-Dichloroethane	1500.0 GW Class3	
	1,2-Dichloropropane	0.50 ^{GW} GW _{Class3}	
	Methylene Chloride	0.50 ^{GW} GW _{Class3}	
	Naphthalene	150.0 GW Class3	
	Toluene	100.0 ^{GW} GW _{Class3}	
	Arsenic	1.0 ^{GW} GW _{Class3}	
	Barium	200.0 ^{GW} GW _{Class3}	
	Cadmium	0.50 ^{GW} GW _{Class3}	
	Chromium	10.0 GW Class3	
· · · · · · · · · · · · · · · · · · ·	Lead	1.50 ^{GW} GW _{Class3}	
	Selenium	5.00 ^{GW} GW _{Class3}	
	Silver	37.0 GW Class 3	
	Mercury	0.2 ^{GW} GW _{Class3}	
4 D 1111 070 /D			
4. Building 373 (Dynamometer Shop)	TPH (C6 - C12)	290.0 ^{GW} GW _{Class3}	
	TPH (C12 - C28)	290.0 ^{GW} GW _{Class3}	
	TPH (C28 – C35)	290.0 ^{GW} GW _{Class3}	
	Chloroform	73.0 ^{GW} GW _{Class3}	
	Toluene	100.0 ^{GW} GW _{Class3}	
	Trichloroethene	0.50 ^{GW} GW _{Class3}	
	Barium	200.0 ^{GW} GW _{Class3}	
	Selenium	5.00 GW Class3	
	Mercury	0.2 ^{GW} GW _{Class3}	
5. Building 433, Former Rubber Products Building	1,1-Dichloroethene	0.70 ^{GW} GW _{Class3}	
		1	
	cis-1,2-Dichloroethene	7.00 ^{GW} GW _{Class3}	
	trans-1,2-Dichloroethene	10.0 ^{GW} GW _{Class3}	
	Tetrachloroethene	0.50 ^{GW} GW _{Class3}	
	Trichloroethene	0.50 ^{GW} GW _{Class3}	
	Vinyl Chloride	0.20 ^{GW} GW _{Class3}	
	1,1,1-Trichloroethane	20.0 ^{GW} GW _{Class3}	
	1,1,2,2-Tetrachloroethane	1.0 ^{GW} GW _{Class3}	

Permit No. 50178 _____ Continuation Sheet 3 of 6 _____ Permittee: U.S. Department of the Army - Red River Army Depot

CP Table III: Corrective Action Program Table of Detected Hazardous and Solid Waste Constituents and the Groundwater Protection Standard, continued

Unit Name	Column A Hazardous Constituents	Column B Groundwater Protection Standards	Column C (1.)Well Specific AAL
		(mg/l)	(mg/l)
	1,1,2-Trichloroethane	0.50 GW Class3	
	1,1-Dichloroethane	1500.0 ^{GW} GW _{Class3}	
	1,2,3-Trichlorobenzene	22.0 ^{GW} GW _{Class3}	
	1,2,4-Trimethylbenzene	370.0 ^{GW} GW _{Class3}	
	1,2-Dichlorobenzene	60.0 ^{GW} GW _{Class3}	
	1,2-Dichloroethane	0.5 ^{GW} GW _{Class3}	
	1,3,5-Trimethylbenzene	370.0 ^{GW} GW _{Class3}	
	1,3-Dichlorobenzene	220.0 ^{GW} GW _{Class3}	
	1,4-Dichlorobenzene	7.5 GW Class3	
	Acetone	6600.0 ^{GW} GW _{Class3}	
	Benzene	0.5 ^{GW} GW _{Class3}	
	Bromodichloromethane	· 3.3 ^{GW} GW _{Class3}	
	Carbon disulfide	730.0 ^{GW} GW _{Class3}	
	Carbon tetrachloride	0.5 ^{GW} GW _{Class3}	
	Chlorodibromomethane	2.4 ^{GW} GW _{Class3}	
	Chloroform	73.0 ^{GW} GW _{Class3}	
	Chloromethane	16.0 ^{GW} GW _{Class3}	
	Methylene Chloride	0.5 ^{GW} GW _{Class3}	
	Naphthalene	150.0 ^{GW} GW _{Class3}	
	Toluene	$100.0^{\mathrm{GW}}\mathrm{GW}_{\mathrm{Class}3}$	
	Di-n-octylphthalate	290.0 ^{GW} GW _{Class} 3	
	Aluminum	7300.0 ^{GW} GW _{Class3}	
	Antimony	0.6 ^{GW} GW _{Class3}	
	Arsenic	0.0002 BKG	
	Barium	200.0 ^{GW} GW _{Class3}	
	Berylium	0.4 ^{GW} GW _{Class3}	
	Cadmium	0.5 ^{GW} GW _{Class3}	
	Chromium	10.0 GW Class3	
*	Cobalt	2.2 ^{GW} GW _{Class3}	
	Copper	130.0 GW Class3	
	Lead	1.5 ^{GW} GW _{Class3}	
	Manganese	1000.0 ^{GW} GW _{Class3}	
	Molybdenum	37.0 ^{GW} GW _{Class3}	
	Nickel	150.0 GW Class3	
	Selenium	5.0 GW Class3	
· · · · · · · · · · · · · · · · · · ·	Silver	37.0 GW Class3	
	Vanadium	13.0 GW Class3	
	Zinc	2200.0 ^{GW} GW _{Class3}	
		0.2 ^{GW} GW _{Class3}	
1, 10 mm 1,	Mercury	U.2 UW Class3	
Building 473 / POL Site	1,1-Dichloroethene	0.70 ^{GW} GW _{Class3}	
	1,1,1-Trichloroethane	20.0 ^{GW} GW _{Class3}	
	Vinyl Chloride	0.20 GW Class 3	

Permittee: U.S. Department of the Army - Red River Army Depot

CP Table III: Corrective Action Program Table of Detected Hazardous and Solid Waste Constituents and the Groundwater Protection Standard, continued

Unit Name	Column A Hazardous Constituents	Column B Groundwater Protection Standards (mg/l)	Column C (1.)Well Specific AAL (mg/l)
	Acetone	6600.0 ^{GW} GW _{Class3}	<u> </u>
	Aluminum	$7300.0^{\text{GW}}\text{GW}_{\text{Class}3}$	
	Barium	200.0 ^{GW} GW _{Class3}	
	Beryllium	0.4 ^{GW} GW _{Class3}	
	Cobalt	2.2 ^{GW} GW _{Class3}	
	1,1-Dichloroethane	1500.0 ^{GW} GW _{Class3}	
	Manganese	1000.0 GW GW Class 3	
	Mercury	0.2 GW Class 3	
	2-Butanone	4400.0 GW Class3	
	4-Methyl-2-pentanone	580.0 ^{GW} GW _{Class3}	
	Nickel	150.0 ^{GW} GW _{Class3}	
	Phenol	2200.0 ^{GW} GW _{Class3}	
	Vanadium	13.0 ^{GW} GW _{Class3}	
	Zinc	2200.0 ^{GW} GW _{Class3}	
		Casso	
7. Western Industrial Area (WIA, including Buildings 315, 333 and associated soils, 345, 341, 348, 350, Wastewater Treatment Area, Panther Creek and associated groundwater and soils).	1,1-Dichloroethane	730.0 ^{GW} GW _{Class3}	
and sonoy.	1,1-Dichloroethene	1500.0 ^{GW} GW _{Class3}	691 ^{sw} GW **
	1,2-Dichloroethane	0.5 GW GW Class 3	
	cis-1,2-Dichloroethene	7.00 ^{GW} GW _{Class3}	166,000 ^{sw} GW
	trans-1,2-Dichloroethene	10.0 ^{GW} GW _{Class3}	
	1,2,3-Trichloropropane	0.0068 ^{GW} GW _{Class3}	
	1,2,4-Trichlorobenzene	7.00 ^{GW} GW _{Class3}	
	Ethylene Dibromide	0.005 ^{GW} GW _{Class3}	
	1,2-Dibromomethane	0.005 ^{GW} GW _{Class3}	
	1,3-Dichlorobenzene	220.0 ^{GW} GW _{Class3}	
	1,1,1-Trichloroethane	20.0 GW Class 3	
	1,1,2-Trichloroethane	0.50 ^{GW} GW _{Class3}	
	1,1,2,2-Tetrachloroethane	1.0 GW GW Class3	
	Trichloroethene	0.50 ^{GW} GW _{Class3}	6,570 ^{SW} GW **
	Vinyl Chloride	0.20 ^{GW} GW _{Class3}	33,400 ^{SW} GW **
49	Methylene Chloride	0.50 ^{GW} GW _{Class3}	130.000 ^{sw} GW **
	Acetone	6600.0 ^{GW} GW _{Class3}	120,000
	Methyl-tertbutyl-ether	73.0 ^{GW} GW _{Class3}	
	Barium	200.0 GW Class3	
	Copper	130.0 GW Class3	
	Iron	7584.0 ^{GW} GW _{Class3}	
	Lead	1.5 ^{GW} GW _{Class3}	
	Nickel	150.0 GW Class3	

CP Table III: Corrective Action Program Table of Detected Hazardous and Solid Waste Constituents and the Groundwater Protection Standard, continued

Unit Name	Column A Hazardous Constituents	Column B Groundwater Protection Standards (mg/l)	Column C (1.)Well Specific AAL (mg/l)
	Mercury	0.2 ^{GW} GW _{Class3}	
	Selenium	5.0 ^{GW} GW _{Class3}	
	Silver	37.0 ^{GW} GW _{Class3}	
	Thallium	0.2 ^{GW} GW _{Class3}	

Foot Note:

 $^{\rm GW}{\rm GW}_{\rm Ing}$ ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB (Residential or Commercial /Industrial) for Class 1 or Class 2 Groundwater ingestion PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.. In accordance with Section 350.72(b), $^{\rm GW}{\rm GW}_{\rm Ing}$, PCLs may need to be adjusted to lower concentrations to meet the cumulative carcinogenic risk level (less than or equal to 1x10-4) and hazard index criteria (less than or equal to 10) when there are more than 10 carcinogenic and/or more than 10 noncarcinogenic chemicals of concern within a source medium.

GWGW_{Class3} ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB (Residential or Commercial /Industrial), Tier I for Class 3 Groundwater ingestion PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.

AirGW_{Inh-V} ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB (Residential or Commercial /Industrial) for Class 1 or Class 2 Groundwater inhalation PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.

swGW ACL pursuant to 30 TAC Section 335.160(b) based upon the Protective PCL determined under RSA or RSB for Groundwater- to-surface water PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.

ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB for Groundwater- to-sediment PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.

ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB for Groundwater-based on ecological receptor(s) PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.

AAL ACL derived pursuant to 30 TAC Section 335.160(b) based upon the Protective Concentration level (PCL) established as an Attenuation Action Level as defined in 30 TAC Section 350(a)(4).

CP Table III: Corrective Action Program Table of Detected Hazardous and Solid Waste Constituents and the Groundwater Protection Standard, continued

BKG Background as determined in accordance with Provision XI.F.1.

ND Non-detectable at MQL as determined by the analytical methods of the EPA SW-846 most recent edition, and as listed in the July 8, 1987 edition of the Federal Register and later editions. MQL is indicated in parentheses. MQL is defined in 30 TAC Section 350.4 (54) as the lowest non-zero concentration standard in the laboratory's initial calibration curve and is based on the final volume of extract (or sample) used by the laboratory.

Donnit No. 500150	— Continuation Sheet 1 of 3
Permit No. 500178	 Commuation-Sheet-1 of 3

CP Table IIIA: Corrective Action Program Table of Indicator Parameters and Groundwater Protection Standard

Unit Name	Column A Hazardous Constituents	Column B Groundwater Protection Standard (mg/l)	Column C Well Specific AALs (mg/l)
1. Ordnance Training Center (OTC) Area	Benzene	0.50 ^{GW} GW _{Class3}	
	Chloromethane	16.00 ^{GW} GW _{Class3}	
	Carbon Disulfide	730.0 ^{GW} GW _{Class3}	
	1,1-Dichloroethane	1500.0 ^{GW} GW _{Class3}	
	1,2-Dichloroethane	0.50 ^{GW} GW _{Class3}	
	1,1-Dichloroethene	0.70 ^{GW} GW _{Closs3}	
	cis-1,2-Dichloroethene	7.00 ^{GW} GW _{Class} 3	
	trans-1,2-Dichloroethene	10.0 GW GW Class 3	
	Toluene	$100.0^{\text{GW}}\text{GW}_{\text{Class}3}$	
	1,1,1-Trichloroethane	20.0 ^{GW} GW _{Class3}	
	1,1,2-Trichloroethane	0.50 ^{GW} GW _{Class3}	
	Trichloroethene	$0.50^{\text{GW}}\text{GW}_{\text{Class}3}$	
	Vinyl Chloride	0.20 GW GW Class 3	
	Xylenes	1000.0 ^{GW} GW _{Class3}	
	Barium	200.0 ^{GW} GW _{Class3}	
	Cadmium	0.50 ^{GW} GW _{Class3}	
	Chromium (Total)	10.0 ^{GW} GW _{Class3}	
· · · · · · · · · · · · · · · · · · ·	Lead	1.50 ^{GW} GW _{Class3}	
	Nickel	150.0 ^{GW} GW _{Class3}	
	Selenium	5.00 ^{GW} GW _{Class3}	
·············	Silver	37.0 ^{GW} GW _{Class3}	•
	Zinc	2200.0 ^{GW} GW _{Class3}	
2. Sludge Drying Beds	Cadmium	0.109 ^{sw} GW	
	Chromium	0.125 ^{SW} GW	
	Lead	0.220 ^{sw} GW	
	Nickel	5.6 ^{sw} GW	
	Zinc	0.90 ^{BKG}	
	Chloroform	73 ^{GW} GW _{Class3}	
	1,1-Dichloroethane	4,93 ^{SW} GW	
	1,2-Dichloroethane	4.93 ^{SW} GW	
······································	1,1-Dichloroethene	0.390 ^{sw} GW	
	cis-1,2-Dichlorethene	7.00 ^{sw} GW	
	trans-1,2-Dichloroethene	10.0 ^{sw} GW	
	Toluene	0.177 ^{sw} GW	
	1,1,1-Trichlorethane	0.011 ^{sw} GW	
	Trichloroethene	0.257 ^{SW} GW	
3. Building 371 (Battery Shop)	1,1-Dichloroethene	0.70 ^{GW} GW _{Class3}	
, , , , , , , , , , , , , , , , , , , ,	cis-1,2-Dichloroethene	7.00 ^{GW} GW _{Class3}	

Permit No. 500178

Permittee: U.S. Department of the Army - Red River Army Depot

CP Table IIIA: Corrective Action Program Table of Indicator Parameters and Groundwater Protection Standard, continued

turk galas Sar Trenda	Column A	Column B	Column C
Unit Name	Hazardous Constituents	Groundwater Protection Standard (mg/l)	Well Specific AALs (mg/l)
2 mg 1 mg	trans-1,2-Dichloroethene	10.0 ^{GW} GW _{Class3}	
	Trichloroethene	0.50 ^{GW} GW _{Class3}	
	Vinyl Chloride	0.20 ^{GW} GW _{Class3}	
<u></u>			
4. Building 373 (Dynamometer Shop)	TPH (C6 - C12)	290.0 GW Class3	
	TPH (C12 - C28)	290.0 ^{GW} GW _{Class3}	
5. Building 433, Former Rubber Products Building	1,1-Dichloroethene	0.70 ^{GW} GW _{Class3}	
	cis-1,2-Dichloroethene	7.00 ^{GW} GW _{Class3}	
	trans-1,2-Dichloroethene	10.0 ^{GW} GW _{Class3}	
	Tetrachloroethene	0.50 ^{GW} GW _{Class3}	
	Trichloroethene	0.50 ^{GW} GW _{Class3}	
	Vinyl Chloride	0.20 ^{GW} GW _{Class3}	
6. Building 473 / POL Site	1,1-Dichloroethene	0.70 ^{GW} GW _{Class3}	
P	1,1,1-Trichloroethane	20.0 GW Class3	
A A A A A A A A A A A A A A A A A A A	Vinyl Chloride	0.20 ^{GW} GW _{Class3}	
7. Western Industrial Area (WIA, including Buildings 315, 333 and			
associated soils, 345,		C111	gyv/
341, 348, 350,	1,1-Dichloroethene	0.70 ^{GW} GW _{Class3}	691 ^{SW} GW **
Wastewater Treatment Area, Panther Creek and associated			
groundwater and soils).			
Browner and some.	cis-1,2-Dichloroethene	7.00 ^{GW} GW _{Class3}	166,000 ^{SW} GW **
	trans-1,2-Dichloroethene	10.0 ^{GW} GW _{Class3}	
	1,2,3-Trichloropropane	0.0068 ^{GW} GW _{Class3}	
	1,1,2-Trichloroethane	0.50 ^{GW} GW _{Class3}	
	Trichloroethene	0.50 ^{GW} GW _{Class3}	6,570 ^{sw} GW **
<u> </u>	Vinyl Chloride	0.20 ^{GW} GW _{Class3}	33,400 ^{SW} GW **
	Methylene Chloride	0.50 ^{GW} GW _{Class3}	130,000 ^{SW} GW**
	Ethylene Dibromide	0.005 ^{GW} GW _{Class3}	

Foot Note:

 $^{
m GW}_{
m Ing}$ ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB (Residential or Commercial /Industrial) for Class 1 or Class 2 Groundwater ingestion PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the

Permit No. 500178

Permittee: U.S. Department of the Army - Red River Army Depot

CP Table IIIA: Corrective Action Program Table of Indicator Parameters and Groundwater Protection Standard, continued

rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table. In accordance with Section 350.72(b), $^{\rm GW}GW_{\rm Ing}$, PCLs may need to be adjusted to lower concentrations to meet the cumulative carcinogenic risk level (less than or equal to 1x10-4) and hazard index criteria (less than or equal to 10) when there are more than 10 carcinogenic and/or more than 10 noncarcinogenic chemicals of concern within a source medium.

GWGW_{Class3} ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB (Residential or Commercial /Industrial) Tier I for Class 3 Groundwater ingestion PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.

AirGWInh-V ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB (Residential or Commercial /Industrial) for Class 1 or Class 2 Groundwater inhalation PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.

swGW ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB for Groundwater- to-surface water PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.

ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB for Groundwater- to-sediment PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.

ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB for Groundwater- based on ecological receptor(s) PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.

AAL ACL derived pursuant to 30 TAC Section 335.160(b) based upon the Protective Concentration level (PCL) established as an Attenuation Action Level as defined in 30 TAC \$350(a)(4).

BKG Background as determined in accordance with Provision XI.F.1.

ND Non-detectable at MQL as determined by the analytical methods of the EPA SW-846 most recent edition, and as listed in the July 8, 1987 edition of the Federal Register and later editions. MQL is indicated in parentheses. MQL is defined in 30 TAC Section 350.4(54) as the lowest non-zero concentration standard in the laboratory's initial calibration curve and is based on the final volume of extract (or sample) used by the laboratory.

CP Table IV: Compliance Monitoring Program Table of Hazardous and Solid Waste Constituents and Quantitation Limits

Unit Name	Column A Hazardous Constituents	Column B Concentration Limits
Chromate Equalization Lagoon (CEL)	Antimony	(mg/l) 0.004 ND
	Arsenic	0.005 ND
	Cadmium	0.0005 ND
	Chromium	0.005 ND
	Lead	0.002 ND
	Nickel	0.005 ND
	Zinc	0.010 ND
	Benzene	0.001 ND
	Carbon tetrachloride	0.0005 ND
	Chloroform	0.00025 ND
	I,1-Dichloroethane	0.0005 ND
	1,2-Dichloroethane	0.00025 ND
	1,1-Dichloroethene	0.0005 ND
	cis-1,2-Dichloroethene	0.001 ND
	trans-1,2-Dichloroethene	0.0005 ND
	Toluene	0.001 ND
	1,1,1-Trichloroethane	0.001 ND
	1,1,2-Trichloroethane	0.0001 ND
	Trichloroethene	0.0005 ND
	Vinyl Chloride	0.001 ND
	Xylenes	0.001 ND
2. Open Burn Area 1	Cadmium	0.0005 ND
2. 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Chromium	0.005 ND
	Lead	0.002 ND
	Mercury	0.001 ND
	Nickel	0.005 ND
	Perchlorate	0.001 ND
	Nitrobenzene	0.0064 ND
1	HMX (Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine)	0.013 ND
	RDX (Hexahydro-1,3,5-trinitro-1,3,5-triazine)	0.014 ND
	1,3,5-TNB (1,3,5-Trinitrobenzene)	0.0073 ND
	1,3-DNB (1,3-Dinitrobenzene)	0.004 ND
	Tetryl (Methyl-2,4,6-trinitrophenylnitramine)	0.004 ND
	2,4,6-TNT (2,4,6-Trinitrotoluene)	0.069 ND
	4-Am-DNT (4-Amino-2,6-dinitrotoluene)	0.010 ND
	2-Am-DNT (2-Amino-4,6-dinitrotoluene)	0.010 ND
	2,4-DNT (2,4-Dinitrotoluene)	0.0057 ND
	2,6-DNT (2,6-Dinitrotoluene)	0.0094 ND
	2-NT (2-Nitrotoluene)	0.012 ND

Permit No. 50178

Permittee: U.S. Department of the Army - Red River Army Depot

CP Table IV: Compliance Monitoring Program Table of Hazardous and Solid Waste Constituents and Quantitation Limits, continued

Unit Name	Column A Hazardous Constituents	Column B Concentration Limits (mg/l)
	3-NT (3-Nitrotoluene)	0.0079 ND
	4-NT (4-Nitrotoluene)	0.0085 ND
3. Open Burn Area 2	Cadmium	0.0005 ND
	Chromium	0.005 ND
	Lead	0.002 ND
	Mercury	0.001 ND
	Nickel	0.005 ND
	Perchlorate	0.001 ND
	Nitrobenzene	0.0064 ND
	HMX (Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine)	0.013 ND
	RDX (Hexahydro-1,3,5-trinitro-1,3,5-triazine)	0.014 ND "
	1,3,5-TNB (1,3,5-Trinitrobenzene)	0.0073 ND
	1,3-DNB (1,3-Dinitrobenzene)	0.004 ND
	Tetryl (Methyl-2,4,6-trinitrophenylnitramine)	0.004 ND
	2,4,6-TNT (2,4,6-Trinitrotoluene)	0.069 ND
	4-Am-DNT (4-Amino-2,6-dinitrotoluene)	0.010 ND
	2-Am-DNT (2-Amino-4,6-dinitrotoluene)	0.010 ND
	2,4-DNT (2,4-Dinitrotoluene)	0.0057 ND
	2,6-DNT (2,6-Dinitrotoluene)	0.0094 ND
	2-NT (2-Nitrotoluëne)	0.012 ND
	3-NT (3-Nitrotoluene)	0.0079 ND
	4-NT (4-Nitrotoluene)	0.0085 ND
4. Open Detonation Area	Cadmium	0.0005 ND
	Chromium	0.005 ND
	Lead	0.002 ND
	Mercury	0.001 ND
	Nickel	0.005 ND
	Perchlorate	0.001 ND
	Nitrobenzene	0.0064 ND
	HMX (Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine)	0.013 ND
	RDX (Hexahydro-1,3,5-trinitro-1,3,5-triazîne)	0.014 ND
	1,3,5-TNB (1,3,5-Trinitrobenzene)	0.0073 ND
· · · · · · · · · · · · · · · · · · ·	1,3-DNB (1,3-Dinitrobenzene)	0.004 ND
	Tetryl(Methyl-2,4,6-trinitrophenylnitramine)	0.004 ND
	2,4,6-TNT (2,4,6-Trinitrotoluene)	0.069 ND
<u> </u>	4-Am-DNT (4-Amino-2,6-dinitrotoluene)	0.010 ND
	2-Am-DNT (2-Amino-4,6-dinitrotoluene)	0.010 ND
	2,4-DNT (2,4-Dinitrotoluene)	0.0057 ND
	2,6-DNT (2,6-Dinitrotoluene)	0.0094 ND

Permit No. 50178

Permittee: U.S. Department of the Army - Red River Army Depot

CP Table IV: Compliance Monitoring Program Table of Hazardous and Solid Waste Constituents and Quantitation Limits, continued

Unit Name	Column A Hazardous Constituents	Column B Concentration Limits (mg/l)
	2-NT (2-Nitrotoluene)	0.012 ND
	3-NT (3-Nitrotoluene)	0.0079 ND
	4-NT (4-Nitrotoluene)	0.0085 ND

Foot Note:

ND Non-detectable at MQL as determined by the analytical methods of the EPA SW-846 most recent edition, and as listed in the July 8, 1987 edition of the Federal Register and later editions. MQL is indicated in parentheses. MQL is defined in 30 TAC Section 350.4 (54) as the lowest non-zero concentration standard in the laboratory's initial calibration curve and is based on the final volume of extract (or sample) used by the

BKG Background as determined in accordance with Provision XI.F.1.

Permittee: Red River Army Depot

CP Table IVA: Compliance Monitoring Program Table of Detected Hazardous Constituents and the Groundwater Protection Standard

Unit Name	Column A Hazardous Constituents	Column B Groundwater Protection Standard (mg/l)
Chromate Equalization Lagoon (CEL)	Arsenic	0.093 ^{sw} GW
	Cadmium	0.0024 ^{BKG}
	Chromium	0.125 ^{sw} GW
	Lead	0.003 ^{BKG}
	Nickel	5.6 ^{SW} GW
	Zinc	0.900 ^{BKG}
	1,1-Dichloroethane	4.93 ^{SW} GW
	1,1-Dichloroethene	0.390 ^{sw} GW
2. Open Burn Area 1	Cadmium	0.50 ^{GW} GW _{Class3}
	Chromium	10.0 GW GW Class 3
	Lead	1.50 ^{GW} GW _{Class3}
	Mercury	0.20 ^{GW} GW _{Class3} ———
	Nickel	150.0 ^{GW} GW _{Class3}
	Nitrobenzene	15.0 ^{GW} GW _{Class3}
	Perchlorate	5.1 ^{GW} GW _{Class3}
3. Open Burn Area 2	Cadmium	$0.50^{\mathrm{GW}}\mathrm{GW}_{\mathrm{Class}3}$
	Chromium	10,0 ^{GW} GW _{Class3}
	Lead	1.50 ^{GW} GW _{Class3}
	Mercury	0.20 ^{GW} GW _{Class3}
	Nickel	150.0 ^{GW} GW _{Class3}
	Nitrobenzene	15.0 ^{GW} GW _{Class3}
	Perchlorate	5.1 ^{GW} GW _{Class3}
4. Open Detonation Area	Cadmium	0.50 ^{GW} GW _{Class3}
	Chromium	10.0 ^{GW} GW _{Class3}
	Lead	1.50 ^{GW} GW _{Class} 3
	Mercury	0.20 ^{GW} GW _{Class3}
	Nickel	150.0 ^{GW} GW _{Class3}
	Nitrobenzene	15.0 ^{GW} GW _{Class3}
	Perchlorate	5.1 GW GW Class 3

Foot Note:

 $^{\rm GW}{\rm GW}_{\rm Ing}$ ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB (Residential or Commercial /Industrial) for Class 1 or Class 2 Groundwater ingestion PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table. In accordance with Section 350.72(b), $^{\rm GW}{\rm GW}_{\rm Ing}$, PCLs may need to be adjusted to lower concentrations to meet the cumulative carcinogenic risk level (less than or equal to 1x10-4) and hazard index criteria (less than or equal to 10) when there are

Permit No. 50178 Permittee: Red River Army Depot

CP Table IVA: Compliance Monitoring Program Table of Detected Hazardous Constituents and the Groundwater Protection Standard, continued

more than 10 carcinogenic and/or more than 10 noncarcinogenic chemicals of concern within a source medium.

GWGW_{Class3} ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB (Residential or Commercial/Industrial) Tier I for Class 3 Groundwater ingestion PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.

AirGW_{Inh-V} ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB (Residential or Commercial /Industrial) for Class 1 or Class 2 Groundwater inhalation PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.

swGW ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB for Groundwater-to-surface water PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.

ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB for Groundwater-to-sediment PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table,

ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB for Groundwater-based on ecological receptor(s) PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.

BKG Background as determined in accordance with Provision XI.F.1.

ND Non-detectable at MQL as determined by the analytical methods of the EPA SW-846 most recent edition, and as listed in the July 8, 1987 edition of the Federal Register and later editions. MQL is indicated in parentheses. MQL is defined in 30 TAC Section 350.4 (54) as the lowest non-zero concentration standard in the laboratory's initial calibration curve and is based on the final volume of extract (or sample) used by the laboratory.

CP Table V: Designation of Wells

POINT OF COMPLIANCE WELLS

- 1. OTC Landfill
 OTC(M)-43B, OTC-44, OTC(W)-53, OTC(W)-54, OTC(W)-55, OTC(W)-56, OTC(W)-57, OTC(W)-58,
 OTC(W)-59R, OTC-65, OTC-66, OTC-67
- 2. Open Burn / Open Detonation Areas
 OBOD-J, OBOD-K, OBOD-L, OBOD-6, OBOD-7, OBOD-11, OBOD-15, OBOD-18, OBOD-19, OBOD-20, OBOD-21, OBOD-22, OBOD-25, OBOD-26, OBOD-27, OBOD-28, OBOD-29, OBOD-30, OBOD-31, OBOD-32*
 - *OBOD-32 is an upgradient piezometer monitored for groundwater elevation only.
- 3. <u>Chromate Equalization Lagoon (CEL) Area</u> CEL-10, CEL-11, CEL-13, CEL-14
- 4. <u>Sludge Drying Beds</u> DG-8A, DG-12, DG-13, DG-14, DG-15

POINT OF EXPOSURE WELLS

[***Add "None" if there are no POE wells***]

- 1. OTC Landfill OTC-84
- 2. Western Industrial Area (WIA, including Buildings 315, 333 and associated soils, 345, 341, 348, 350, Wastewater Treatment Area, Panther Creek and associated groundwater and soils)
 WIA-MW1A/B, WIA-MW10A/B/C, WWT-43A/B/C, SFA-2A/B, WWT-42A/B/C, WWT-MW53A/B/C, WWT-24/24A, BNMW-1D/W, BNMW-2D/U/W, BNMW-3D/U/W, BSMW-1D/U/W, BSMW-2D/U/W, BSMW-3D/U/W

ALTERNATE POINT OF EXPOSURE WELLS [***Add "None" if there are no APOE wells***]

- 1. <u>SWMU 9 Building 433</u> 433-MW-11A/B, 433-MW41A/B, 433-MW42A/B, 433-MW43A/B, 433-MW44A/B, 345-MW54A/B
- 2. <u>SWMU 8 Building 373</u> 373-MW2, 373-MW3, 373-MW4
- 3. <u>SWMU 7 Building</u> 371MW-6A/B
- 4. <u>SWMU 4 POL Pump Site Building 473</u> POL-43

BACKGROUND WELLS

1. Western Industrial Area (WIA, including Buildings 315, 333 and associated soils, 345, 341, 348, 350, Wastewater Treatment Area, Panther Creek and associated groundwater and soils)
WIA-MW4A/B/C

CP Table V: Designation of Wells, continued

FOA BOUNDARY OF COMPLIANCE WELLS [***Add "None" if there are no FBOC wells***]

EXPOSURE PATHWAY

1. None (e.g. SWGW - Groundwater to surface water PCL for Brazos River or Barge Canal, etc)

Note: Wells that are not listed in this table are subject to change, upon approval by the Executive Director, without modification to the Compliance Plan.

Permit No. 50178 — Continuation Sheet 1 of 2
Permittee: U.S. Department of the Army - Red River Army Depot

CP Table VI: Compliance Period for RCRA-Regulated Units

Ordnance Training Center (OTC) Area	Year or Number of Years
Year Waste Management Activities Initiated	1977
Year Closed	1986
Compliance Period	30 Years
Compliance Period Began	1998

Chromate Equalization Lagoon (CEL)	Year or Number of Years
Year Waste Management Activities Initiated	1978
Year Closed	1988
Compliance Period	10 Years
Compliance Period Began	2000

Waste Pile (Sludge Drying Beds)	Year or Number of Years
Year Waste Management Activities Initiated	1978
Year Closed	2005
Compliance Period	30 Years
Compliance Period Began	2005

Open Bürn Area 1	Year or Number of Years
Year Waste Management Activities Initiated	1950
Year Closed	Operations will cease in 2011. Closure expected in or after 2017.
Compliance Period	30 Years
Compliance Period Began	2000

CP Table VI: Compliance Period for RCRA-Regulated Units, continued

Open Burn Area 2	Year or Number of Years
Year Waste Management Activities Initiated	1950
Year Closed	Operations will cease in 2011. Closure expected in or after 2017.
Compliance Period	30 Years
Compliance Period Began	2000

Open Detonation Area	Year or Number of Years
Year Waste Management Activities Initiated	1950
Year Closed	Operations will cease in 2011. Closure expected in or after 2017.
Compliance Period	30 Years
Compliance Period Began	2000

Permit No. 50178 — Continuation-Sheet 1-of-2 — Continuatio

CP Table VII: Reporting Requirements

77-12-12-12-12-12-12-12-12-12-12-12-12-12-	<u> </u>		<u> </u>		1 .7772
SITE	SAMPLING PROGRAM	SAMPLING REQS	SAMPLING COMPLETED BY	ANNUAL REPORTING BY	ADDITIONAL REPORTING REQUIREMENTS
Chromate Equalization Lagoon	Compliance Monitoring	Annual per CP Table IV	April	January 21 of the year following collection events	NA
Open Burn/Open Detonation Areas	Compliance Monitoring	Annual per CP Table IV	April	January 21 of the year following collection events	NA
Ordnance Training Center	Corrective Action	Annual per CP Table III	April	January 21 of the year following collection events	NA
Sludge Drying Beds	Corrective Action	Annual per CP Table III	April	January 21 of the year following collection events	NA
BLDG 371	Corrective Action	Annual per CP Table III	April	January 21 of the year following collection events	NA
BLDG 371	Corrective Action	Annual per CP Table III	April		RAER every 3 yrs, beginning in 2011
BLDG 373	Corrective Action	Annual per CP Table III	April	January 21 of the year following collection events	NA
BLDG 373	Corrective Action	Semi- annual visual inspections of adjacent ditches for presence of NAPL	April	January 21 of the year following collection events	NA

Permit No. 50178

Permittee: U.S. Department of the Army - Red River Army Depot

CP Table VII: Reporting Requirements, continued

SITĖ	SAMPLING PROGRAM	SAMPLING REQS	SAMPLING COMPLETED BY	ANNUAL REPORTING BY	ADDITIONAL REPORTING REQUIREMENTS
BLĎĠ 373	Corrective Action	Semi- annual vacuum removal of product from well 373-MW6	April	January 21 of the year following collection events	NA
BLDG 373	Corrective Action	Annual per CP Table III	April		RAER every 3 yrs beginning in 2011
BLDG 433	Corrective Action	Annual per CP Table III	April	January 21 of the year following collection events	NA
BLDG 433	Corrective Action	Annual per ĈP Table III	April		RAER every 3 yrs beginning in 2011
BLDG 473/ POL	Corrective Action	Annual per CP Table III	April	January 21 of the year following collection events	NA
BLDG 473/ POL	Corrective Action	Annual per CP Table III	April		RAER every 3 yrs beginning in 2011
Western Industrial Area	Corrective Action	Annual per CP Table III	April	January 21 of the year following collection events	NA
Western Industrial Area	Corrective Action	Annual monitoring of ditch outlets to Panther Creek	April	January 21 of the year following collection events	NA
Western Industrial Area	Corrective Action	Annual per CP Table III	April		RAER every 3 yrs beginning in 2011

Note: Per 30 TAC 350.33(k), TCEQ will be notified within 30 days after an unexpected event occurs, or a condition is detected, during post-response action care period which indicates that additional response actions will be required at an affected property.

Permit No. 50178 Continuation Sheet 1 of 2
Permittee: U.S. Department of the Army - Red River Army Depot

CP Table VIII: Compliance Schedule

ITEM	COMPLIANCE SCHEDULE (from the date of issuance of the Compliance Plan unless otherwise specified)	REGULATORY CITATION	REQUIREMENT
Α.	60	Compliance Plan	Submit to the Executive Director a schedule summarizing all activities required by the Compliance Plan. The schedule shall list the starting dates of all routine activities. The Permittee shall include an updated schedule in the report required by Compliance Plan CP Table VII – Reporting Requirements. The schedule shall list the activity or report, the Compliance Plan Section which requires the activity or report and the calendar date the activity or report it to be completed or submitted (if this date can be determined).
В.	60	30 TAC 335.163(4)	Submit to the Executive Director for review and approval a Sampling & Analysis Plan
C.	120	30 TAC 350.31(g)	Submit to the Executive Director proof of compliance with institutional control requirements in accordance with which provides notice of the existence and location of the Plume Management Zone (PMZ) and which prevents exposure to groundwater from this zone until such a time as constituents of concern may be reduced to below the Groundwater Protection Standards of CP Table III – CORRECTIVE ACTION PROGRAM Table of Detected Hazardous and Solid Waste Constituents and the Groundwater Protection Standard.
D.	Notify within 30 days	30 TAC 350.33(k)	After an unexpected event occurs, or a condition is detected, during post-response action care period which indicates that additional response actions will be required at an affected property.

CP Table VIII: Compliance Schedule, continued

ITEM	COMPLIANCE SCHEDULE (from the date of issuance of the Compliance Plan unless otherwise specified)	REGULATORY CITATION	REQUIREMENT
			{Note: Add other site specific activities listed in the implementation schedule of the application that are not completed at the time of application submittal or issuance of the final draft compliance plan. Otherwise, delete requirement if no additional items necessary}. Some common examples are listed below
			Example (PMZ-specific items that haven't been completed):
			Within sixty (60) days of issuance of the Compliance Plan (or other specified time frame), the Permittee shall submit a schedule for completion of the following activities:
E.			Designation/establishment of Attenuation Monitoring Point (AMP) well locations, AMP-xx, AMP-xx that provides appropriate hydraulically upgradient location within the groundwater protective concentration level exceedance (PLCE) zone and continuing down the approximate central flow path of the constituent of concern (COC in the downgradient extent of (unit/area) in accordance with 30 TAC Section 350.33(f)(4)(D).
			Establishment/calculate Attenuation Action Levels (AALs) for AMP, AMP-xx, AMP-xx, in accordance with 30 TAC Section 350.33(f)(4)(D)(ii).
·]			Example (installation of additional monitor wells):
			Within sixty (60) days of issuance of the Compliance Plan (or other specified time frame), the Permittee shall submit a schedule for completion of the following activities: The installation of additional wells MW-xx, MW-xx, POE-xx, etc., as depicting in CP Attachment Amonitor well location map. All newly installed wells must meet the requirements of Section XI.C. and CP Attachment C.



I, MARK WHITE, Secretary of State of the State of Texas, DO HEREBY CERTIFY that the attached is a true and correct copy of the Deed of Cession of the Red River Ordnance Depot situated in Dowic County, Texan, as filled in this office.



IN TESTINION' WHEREOF, I have hereunio signed my name officially and coused to be imperted hereon the Seal of State at my office in the Cure Acusin, this

4th day of October A. D. 19 76

Makotak



lone, 11 May 27, 1944

Romarable Heary L. Stimeon Secretary of War Teachtartes, B. C.

Dear Rr. Stinsons

Enclosed you will find duly a xecuted deade of coasion for 11,000 neros of land situated in Bowle County to be used in connection with the ked Fiver Ordeness Department Department 24,353 across of land situated in Bowle County to be used in connection with the Long Star Crimance Flant.

Cinevraly yours,

Maurico E. Turner Ameralery to the Governor

Philosurg Enclosurg R C: General Land Office.

DEED OF CESSION

STATE OF TEXAS, | COUNTY OF TRAVIS. |

TO ALL TO WHOM THESE PRESENTS SHALL COME, CHEETINGS:

WHEREAS, the United States of America has acquired fee simple title to Fourteen Thousand (14,000) across of land, more or less, lying and being situated in the County of Bovis, State of Texas, to be used in connection with the Red Biver Ordnance Depot in Bovis County, Texas, title to a portion of which said land has vested in the United States of America under and by virtue of the following listed forty-nine (49) deed con-

- Doed dated April 18, 1942, from J. E. Alexander and Edith Alexander, his vife, recorded in the Records of Deeds of Bovic County, Toxas, in Volume 190, pages 324 and 325.
- Deed deted May 18, 1942, from T. J. Anderson and Josic Anderson, his wife, recorded in the Records of Deeds of Bowle County, Texas, in Volume 189, pages 65 and 65.
- Deed doted May 23, 1942, from W. C. Beauchamp and Olema Alexander Beauchamp, his vife, recorded in the records of Boods of Books County, Texas, in Volume 188, pages 594 and 595.
- 4. Deed dated February 23 and 26, 1942, from Charles F. Collier and Sybil Collier, his wife, recorded in the Records of Deeds of Borle County, Texas, in Volume 190, page 116.
- Deed dated April 15, 1942, from Hillage C. Collins and Kathleen Collins, his wire, recorded in the Arcords of Deeds of Bowle County, Trace, in Volume 190, page 205.
- 6. Dood dated April 15, 1942, from Billage C. Colling and Kathleen Colling, his rife, recorded in the Records of Davis of Device

.

į

County, Texas, In Volumo 190, page 306.

- Deed dated May 18, 1942, from R. H. Collins and Ella Berry Collins, his wife, recorded in the Records of Deeds of Devic County, Toxas, in Volume 191, page 615.
- Dand dated May 28, 1942, from Minnie Cookman, a vidov and the sole surviving helr of E.H. Gookman, decembed, rancred in the Records of Deeds of Bowle County, Texas, in Volume 190, pages 429 and 430.
- Dood dated February 6, 1982, from Ruby Davis and Marvey E. Davis, her husband, recorded in the Records of Doods of Bovic County, Toxas, in Volume 186, page 275.
- Doed dated July 2, 1942, from Ella Ecke, a vidow, recorded in the Records of Doeds in Bovie County, Taxas, in Volume 185, page 517.
- Deed dated January 15, 1942, from W. H. Ector and Lillian Ector, his vife, recorded in Volume 183, pages 589 and 590.
- 12. Doed dated March 14, 1942, from L. H. Estos and Gertrude Eates, his wife, recorded in the Records of Deeds of Bovic County, Texas, in Volume 190, pages 190 and 191.
- 13. Doed dated February 19, 1942, From Ervin Forler, Alice Fovler, his vife, Loonard Waldrum and Lizzle A. Waldrum, his vife, recorded in the Records of Doeds of Bovic County, Texas, in Volume 191, pages 167 and 169.
- 14. Deed dated January 20, 1942, from Sam Graham and Elector Graham, his vife, recorded in the Records of Deeds of Bovis County, Texas, in Volume 105, page 220.
- Doed dated May 25, 1942, from D. L. Oriffin and Minnie H. Griffin, his vife, recorded in the Records of Bodds of Bovic County, Toxas, in Volume 184, pages 421 and 422.
- 16. Doed dated March 30, 1942, from L. M. Oriffin and Alice Griffin, his wife, recorded in the Records of Doeds of Boyle County, Texas, in Volume 188, pages 342 and 343.
- 17. Deed dated May 9, 1942, from Mrs. Ruby Nell-Hart, a vidor, recorded in the Records of Deeds of Bovie County, Taxas, in Values 190, pages 372 and 373.
- 18. Deed dated May 9, 1942, from Mrs. Ruby Hell Hart, a vidow, recorded in the Records of Deeds of Dowle County, Texas, in Volume 192, pages 128 and 129.

- Deed dated May 26, 1942, from Borta Lee Rubbard, a widow, recorded in the Records of Deeds of Bovic County, Texas, in Volume 190, pages 424 and 425.
- 20. Dead dated Hny 25, 1942, from Dorta Lee Mubbard, a vidov, recorded in the Records of Deads of Dovic County, Taxes, in Volume 190, page 425.
- 21. Deed dated April 15, 1942, from James Hubbard and Ella Lea Hubbard, his vife, recorded in the Racords of Deeds of Hovie County, Texas, in Volume 190, pages 298 and 299.
- 22. Deed dated May 12, 1942, From William Johnson and Detale Johnson, his wife, recorded in the Records of Deeds of Bovic County, Texas, in Volume 188, pages 587 and 580.
- 23. Dead dated June 3, 1942, from C. W. Jones and Mary Jones, his wife, recorded in the Records of Deads of Devic County, Texas, in Volume 190, pages 442 and 443.
- 24. Dood dated May 26, 1942, from Abo Mahone and Alma Mahone, his wife, recorded in the Records of Doods of Bowle County, Texas, in Volume 191, pages 640 and 641.
- Doed dated April 27, 1942, from E. H. Nahone and Bennis Faya Nahone, his vife, recorded in the Records of Doeds of Dovic County, Texas, in Volume 192, pages 92 and 93.
- Dead dated April 27, 1942, from E. N. Mahone and Bennie Paye Mahone, his vife, recorded in the Records of Deeds of Devic County, Texas, in Volume 192, pages 108 and 109.
- 27. Dood dated May 29, 1942, from Leon Missildine and Lillie Missildine, his wife, recorded in the Reservis of Deeds of Devic County, Texas, in Volume 188, page 614.
- 28. Deed deted March 6, 1942, from Leon Missildine and Lillis Missildine, his vife, recorded in the Records of Deeds of Bovic County, Texas, in Volume 190, pages 167 and 168.
- 29. Doed dated May 9, 1942, from A. L. Mitchell and Hell Mitchell, his viro, recorded in the Records of Doeds of Bovis County, Texas, in Volume 190, page 371.
- Dead dated April 16, 1942, from J. W. Mitchell and Sally Mitchell, his wife, recorded in the Records of Boods of Bovic County, Texas, in Volume 190, pages 315 and 316.
- Deed dated January 14, 1942, from Bob Phillips, a single man, recorded in the Accords of Doods of Bowle County, Texas, in Volume 183, page 577.

The State of the S

Permit No. 50178
Permittee: U.S. Department of the Army – Red River Army Depot

- 32. Deed dated January 27, 1942, from H. G. Purtle and Mollie Fay Purtle, his vife, recorded in the Records of Deeds of Bovic County, Texas, in Volume 181, pages 468 and 459.
- Deed dated April 16, 1942, from B. F. Robertson and M. E. Robertson, his vice, recorded in the Records of Deeds of Bovic County, Texas, in Volume 190, pages 310 and 311.
- 34. Deed dated Harch 3, 1942, from Jack Scott and Trudio Scott, his vife, recorded in the Records of Deeds of Bovia County, Toxas, in Volume 196, pages 135 and 136.
- Dood dated Murch 14, 1942, from Dolia Scaly, a widey, recorded in the Records of Deeds of Bowle County, Texas, in Volume 190, pages 186 and 187.
- Doed dated March 17, 1942, from Cater Smith and Louise Smith, his vife, recorded in the Records of Deeds of Bovie County, Toxas, in Volume 190, pages 201 and 202.
- Dood dated May 4, 1942, from Stanley I. Smith and Virginia J. Smith, his wife, recorded in the Records of Deeds of Bowie County, Toxas, in Volume 191, page 599.
- 38. Deed dated March 20, 1942, from W. A. Smith and Coloste H. Smith, his wife, recorded in the records of Deeds of Boute County, Toxas, in Volume 190, pages 220 and 221.
- 39. Deed dated April 2, 1982, from S. H. Smider and Hora Mae Smider, his wife, M. E. Smider and Lydie Smider, his wife Drucilla J. Smider, a vidow; Perry Buckner and Serah Buckner, his wife, recorded in the Records of Douds of Bowin County, Texas, in Volume 188, pages 350 and 361.
- 40. Dead dated April 2. 1942, from S. H. Snider and Hora Mae Snider, his wife; H. E. Snider and Lydia Snider; his wife; Drucilla J. Snider, a widow; Porry Duckner and Sarah Buckner, his wife, recorded in the Records of Deeds of Dowlo County, Texas, in Volume 188, pages 358, 359 and 360.
- 41. Doed dated August 25, 1942, from T. J. Talley and Myrtic Talkey, his wife, recorded in the Recorded Doeds of Nowlo County, Texas, in Volume 189, page 415.
- 42. Deed dated April 18, 1942, from The Tixorkana Hational Bank, Trustee under the will of R. H. Hubberd, deceased, recorded in the Records of Deeds of Devic County, Texas, in Volume . 190, page 322.

- 43. Dood dated April 18, 1942, from The Texarkana Hational Bank, Trustee under the vill of R.M. Hubbard, deceased, recorded in the Records of Doeds of Bowie County, Texas, in Volume 190, page 321.
- 44. Deed dated June 4, 1947, from V. S. Tynon and Fatty Tyson, his wife, recorded in the Records of Deads of Dovic County, Texas, in Volume 189, pages 67 and 68.
- Deed dated March 17, 1942, from John N. Walker and Amic M. Walker, his vife, recorded in the Records of Deeds of Bowie County, Texas, in Volume 190, page 199.
- 46. Dood dated Herch 26, 1942, from W. H. Webster and Jennie Webster, his vite, recorded in the Records of Deeds of Devis County, Taxas, in Volume 190, page 241.
- Dood dated March 24, 1942, from Earl S. Wood and Walle Wood, his wife, recorded in the Records of Deads of Boyle County, Texas, in Volume 188, page 308.
- 48. Dead dated April 14, 1942, from L. M. Yates and Mary F. Yates, his wife, recorded in the Records of Deeds of Bovic County, Texas, in Volume 190, pages 294 and 295,
- Deed dated December 18, 1941, from S. F. Young and Delte H. Young, his wife, recorded in the-Records of Deeds of Bovic County, Taxas, in Volume 186, page 121.

WHEREAS, title to the romeining portion of the hordinafter described tracts of land not covered by the above listed conveyances was acquired by the United States of America by seven Declarations of Taking filed in the Condemnation Proceeding entitled "United States of America v. 14,000 Acres of land, more or less, attended in Bowle County, State of Texas, Civil Action No. 53", in the United States District Court in and for the Eastern District of Texas on December 5, 1941; December 8, 1941; April 11, 1942; Hoy 15, 1942; May 25, 1942; July 4, 1942; and September 28, 1942, which sold Declarations of Taking have been recorded in the Dead Records of Bowle County, State of Texas, as follows:

- Doctoration of Taking, dated October 31, 1941, and filed December 5, 1941, judgment on which was recorded in the Records of Codds of Bovie County, Texas, in Yolume 184, pages 148 to 155, inclusive.
- Declaration of Taking, dated November 28, 1941, and filed December 8, 1941, judgment on which was recorded in the Records of Deeds of Boyle County, Texas, in Volume 183, pages 524 to 527, inclusive.
- Declaration of Taking, deted Harch 31, 1942, and filed April 11, 1942, judgment on which was re-, corded in the Records of Deeds of Boyle County, Taxes, in Volume 190, pages 299 and 300.
- Declaration of Taking, dated April 29, 1912, and filed May 15, 1942, judgmant on which was recorded in the Records of Declar Geovic County, Toxas, in Volume 192, pages 135 to 137, inclusive.
- Declaration of Taking, dated May 13, 1942, and filed May 25, 1942, Judgment on which was recorded in the Records of Deeds of Sovie County, Toxas, in Volume 188, pages 595 to 600, inclusive.
- Declaration of Taking, dated June 9, 1942, and filed July 4, 1942, Judgment on which was recorded in the Records of Doeds of Dovic County, Toxas, in Volume 184, pages 478 to 404, inclusive.
- Declaration of Taking, dated September 12, 1942, and filed September 26, 1942, Judgment on which was recorded in the Records of Deeds of Dovic County, Taxas, in Volume 189, pages 475 to 480, inclusive;

The perimeter description of the land acquired

by the United States of America in the above listed deed conveyances and Declarations of Taking is as follows:

Deing 6 cortain tract of land situated in Bovia County, Texas, and described as follows:

BEGINAING 1187 vrs. West of the southeast corner of the Robert M. Ethosop survey, said point being the most Masterly southwest corner of the near Masterly southwest corner of the area designated as the Lean Star Ordanice Finit, same being the bouthwest corner of Tract No. 465, convayed to the United States by J. D. Long, said deed being recorded in Vol. 186, page 118, of the Deed Records of Bovic County, Texas; thence Wast With the south boundary line of the said thadey Survey, passing the southwest corner thereof and continuing west with the north side of a public road known as the Texasizand-Old Reston Read, with said road in a vesterly direction along the south boundary line of the Spurgeon-Milton kand to a point where said road turns northwest along the mortheast side of the

-

Rock Mill Cometory ello; thence in a northwesterly direction with the mortheest boundary line of said public road to a point where said road turns west along the south boundary of the M. M. Alexander land; thence continuing West with said public road, with the South boundary line of the M. M. Alexander land, the D. E. Shidor land, the Abe Mahone land and Mrs. Potts land to a point where said road turns in a northwesterly direction along the mortheast wide of the Rock Creek Cametery and Church site, to a point where said road turns morth along the west boundary line of the Abe Mahone 125.4 acre tract; thance north with the west boundary line of anid Abe Mahone land to the northwest cornor thereof, some being a point in the south boundary line of the M. R. Runnels survey; thence west with the south boundary line of the H. R. Runnels survey; passing the southwest cornor thereof and continuing west with the south boundary line of the Frances Sythesurvey; to a point thereon where the said public road, above referred to, hears south; thence following the north or northwest side of said public road in a southwesterly direction to the point where it crosses and intersects enother public road years boundary line of the Prances Sythe survey; thence north with said public road in a southwest corner of said Frances Sythe survey, along the east boundary line of the Prances Sythe survey along the said public road passing the southwest corner of said Frances Sythe survey, along the said public road, passing the most westerly northwest corner of said Frances Sythe survey and continuing in a northerly direction with the west boundary line of the Nina M. Herris land to the most southerly southwest corner of the B. F. Roberts- son land; thence north and to a point where said west boundary turns west along the north womacry in a northerly direction with the west boundary line of the John Ball survey; thence orth believed the south boundary line of the John Ball survey to the northwest corner of the J. F. Malker gin land, the Beral

T. & P. Incilway Company right of vay through the W. F. Thompson curvey, the M.E.P. & P. Railvay Company, Section 37 survey, the J. Paxton survey, the Jonathan Collum survey and the Chas. Collom survey to a point where the south boundary line of said right of vay crosses and intersects the east boundary line of said Chas. Collow curvey, which point is also the most northerly morthwest corner of the Lone Star Ordnance Plant area as herefored cosingnated and located; thence in a southerly direction with the west boundary line of the aforementioned Lone Star Ordnance Plant area to the place of beginning, containing 14,000 acrds, more or less;

WHEREAS, the United States of America desires to acquire constitutional jurisdiction over the land above described, and has made application to the Ocvernor of the State of Taxas in writing to that affect, through its Secretary of War, accompanied with proper evidence of such acquisition duly authenticated and recorded, containing or having annaxed thereto an accurate description of said land by meters and bounds as hereinbefore set forth.

NOW, THEREFORE, I, Coke R. Stevenson, Governor of the State of Texas, in the mame and on behalf of the State of Texas, do heroby code to the United States of America exclusive jurisdiction over the said described land, to hold, possess, and exercise said jurisdiction over the same as long as the same remains the property of the United States of America; provided, however, that this cession of jurisdiction is made and granted upon the express condition that the State of Texas shall rotein concurrent jurisdiction with the United States of America over every portion of the land so coded, so far, that all process, civil and criminal, issuing under the authority of the State of Texas or any of the courts or judicial officers thereof, may be executed by the proper officers of the State of Texas upon any porson amenable to the name within the limits of the land over which jurisdiction is so ceded, to like manner and with like effect as if no such cossion had taken place.

This Dood of Cossion is made pursuant to Articles 5242, 5247 and 5248 of the Revised Civil Statutes of Texas, 1925, and in accordance therevith the United States of America shall be secure in its possession and enjoyment of all said lands, and said lands and all improvements thereon shall be exempt from any texation under the authority of the State of Texas, so long as the same are held, evaned, used, and occupied by the United States of America for any of the purposes expressed in the foregoing statutes and not otherwise.

IN TESTIMONY WHEREOP, I have hereunto signed my name as Governor of the State of Texas and have caused the Great Sent of the State of Texas to be hereunto affixed at the City of Austin, in the State of Texas, on the Adday of May . A. D. 1944.

Governor of the State of

ATTEST:

Secretary of State of the State of Texas.

STATE OF TEXAS, | COUNTY OF TRAVIS. |

BEFORE ME, the undersigned authority, a Rotery Public in end for the County of Travia, State of Texas, on this day personally appeared Coke R. Stevanson, Governor of the State of Texas, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed, and in the capacity therein stated.

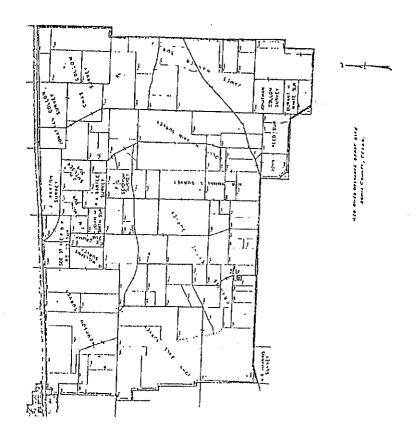
metor ... ravia Gaunty,

Toxas.

APPROVED AS TO FORME

Orover Sellers ATTORNEY GENERAL OF TEXAS

Thos. B. Duggan, Jr.



WAR DEPARTMENT TELEVISIONED TO SECURE OF 1944

1914 AUS 11 BI 9 = 12

Henorable Coke R: Stavencon, Governor of Texas, Austin, Texas.

Dear Governor Stevenson:

The Mar Department administrates receipt of a deed dated May 27, 1944, executed by you on behalf of the State of Texat, coding exclusive jurisdiction to the United States over 14,000 weres of land, were or less, in Equit County, Texas, used in connection with the Red River Ordnance Depot.

Pursuant to the provisions of sention 556, Revised Statutes, as assended by the set of lebruary 1, 1240 (54 Stat. 19), and by the act of Deboter 9, 1340 (54 Stat. 1908; 49 M. S. C. 255), notice is hereby given but its build States necepts exclusive jurisdiction ever the land deposited in the deed of cossion.

Poturn of the emplicate copy of this letter, with your indorsement thereon designating time of receipt of this acceptance by your office, would be appreciated.

Sincercly yours,

Thong L Stronger

Storethry of Mar.

approve by France Guy. 3, 19 LL

(E () 4; 1

7 31 38 750-77

14 min

į

ř

> WAR DEPARTMENT WASHINGTON, D. C.

ges 25 1944

Monorable Coke R. Stevenson, Covernor of Texas, Austin, Years.

RECEIVEDI

Bear Governor Stevenson:

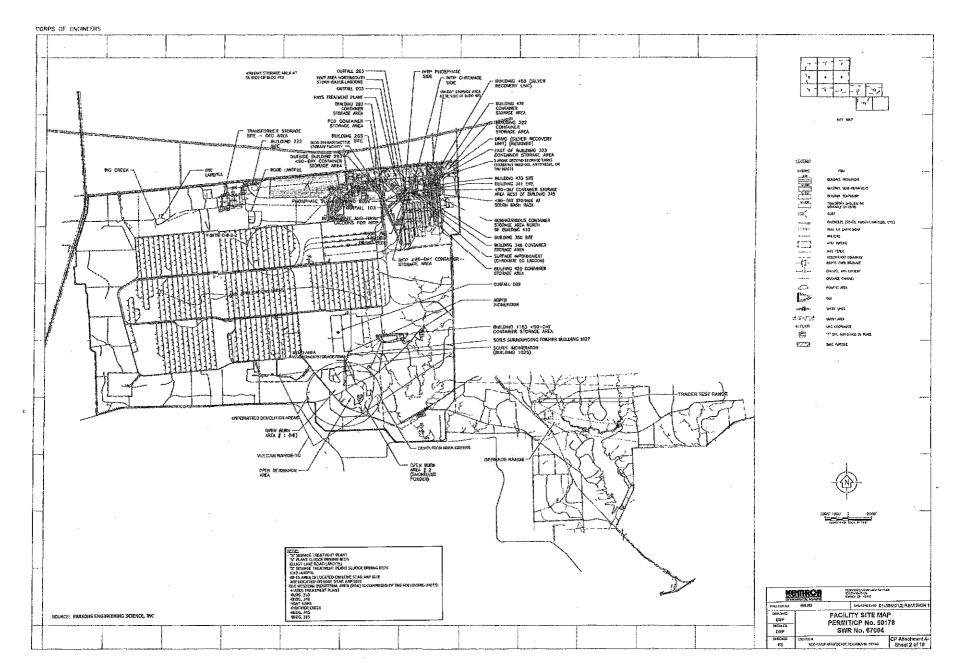
Your kindness in indersing and retarring the copy of my letter accepting exclusive jurisdiction over certain loads in bode County, Toxas, comprising the site of the Mad Aiver Ordnance Depot, is appreciated.

The original latter of acceptance approved by you has also been received by the ear repartment. Since it is believed that you intended that this paper should be retained as a record of the acceptance of jurisdiction, and that it was induced that by two stacks to this Espartment, the tetter is returned for the files of your office.

Shiceraly yours,

1 Incl. Original ltr. of accept, debed July 29, 19hb.





List of Incorporated Application Materials

The following is a list of Part A and Part B Industrial & Hazardous Waste Application elements which are incorporated into all Industrial & Hazardous Waste permits by reference as per Provision I.B.

TCEQ Part A Application Form

- I. General Information
- II. Facility Background Information
- III. Wastes and Waste Management

TCEQ Part B Application Form

I. General Information

- A. Facility Name
- B. Facility Contact
- C. Operator
- D. Application Type and Facility Status
- E. Facility Siting Summary
- F. Wastewater and Stormwater Disposition
- G. Information Required to Provide Notice
- H. TCEQ Core Data Form Requirements
- I. Signature on Application

II. Facility Siting Criteria

- A. Requirements for Storage or Processing Facilities, Land Treatment Facilities, Waste Piles, Storage Surface Impoundments, and Landfills
- B. Additional Requirements for Land Treatment Facilities
- C. Additional Requirements for Waste Piles
- D. Additional Requirements for Storage Surface Impoundments
- E. Additional Requirements for Landfills (and Surface Impoundments Closed as Landfills with Wastes in Place)
- F. Flooding
- G. Additional Information Requirements

III. Facility Management

- A. Compliance History and Applicant Experience
- B. Personnel Training Plan
- C. Security
- D. Inspection Schedule
- E. Contingency Plan
- F Emergency Response Plan

Table III.D. - Inspection Schedule

Table III.E.1. - Arrangements with Local Authorities

Table III.E.2. - Emergency Coordinators

Attachment C Rev. 01/10/2011

Table III.E.3. - Emergency Equipment

IV. Wastes And Waste Analysis

- A. Waste Management Information
- B. Wastes Managed In Permitted Units
- C. Sampling and Analytical Methods
- D. Waste Analysis Plan

Table IV.A. - Waste Management Information

Table IV.B. - Wastes Managed in Permitted Units

Table IV.C. - Sampling and Analytical Methods

V. **Engineering Reports**

- A. General Engineering Reports
- B. Container Storage Areas
- C. Tanks and Tank Systems
- D. Surface Impoundments
- E. Waste Piles
- F. Land Treatment Units
- G. Landfills
- H. Incinerators
- I. Boilers and Industrial Furnaces
- J. Drip Pads
- K. Miscellaneous Units
- L. Containment Buildings

Table V.B. - Container Storage Areas

Table V.C. - Tanks and Tank Systems

Table V.D.1. - Surface Impoundments

Table V.D.6. - Surface Impoundment Liner System

Table V.E.1. - Waste Piles

Table V.E.3. - Waste Pile Liner System

Table V.F.1. - Land Treatment Units
Table V.F.2. - Land Treatment Unit Capacity

Table V.F.3. - Land Treatment Principal Hazardous Constituents

Table V.G.1. - Landfills

Table V.G.3. - Landfill Liner System

Table V.G.4. - Landfill Leachate Collection System

Table V.H.1. - Incinerators

Table V.H.2. - Incinerator Permit Conditions, Monitoring, and Automatic Waste Feed **Cutoff Systems**

Table V.H.3. - Maximum Constituent Feed Rates

Table V.H.4. - Maximum Allowable Emission Rates

Table V.H.5. - Incinerator Permit Conditions, Monitoring, And Automatic Waste Feed Cutoff Systems - Short-term Operation

Table V.H.8. - Principal Organic Hazardous Constituents

Table V.I.1. - Boilers and Industrial Furnaces

Table V.I.2. - Boiler and Industrial Furnace Permit Conditions, Monitoring, and Automatic Waste Feed Cutoff Systems

Table V.I.3. - Maximum Constituent Feed Rates

Table V.I.4. - Maximum Allowable Emission Rates

Table V.I.5. - Boiler and Industrial Furnace Permit Conditions, Monitoring, and Automatic Waste Feed Cutoff Systems - Short-term Operation

Table V.I.8. - Principal Organic Hazardous Constituents

Table V.J.1. - Drip Pads

Table V.J.2. - Drip Pad Synthetic Liner System

Table V.K. - Miscellaneous Units

Table V.L. - Containment Buildings

VI. Geology Report

- A. Geology and Topography
- B. Facility Groundwater
- C. Exemption from Groundwater Monitoring for an Entire Facility
- D. Unsaturated Zone Monitoring

Table VI.A.1. - Major Geologic Formations

Table VI.A.4. - Waste Management Area Subsurface Conditions

Table VI.B.3.b. - Unit Groundwater Detection Monitoring System

Table VI.B.3.c. - Groundwater Sample Analysis

VII. Closure And Post-Closure Plans

- A. Closure
- B. Closure Cost Estimate
- C. Post-closure
- D. Post-closure Cost Estimate
- E. Closure and Post-Closure Cost Summary

Table VII.A. - Unit Closure

Table TABLE VII.B. - Unit Closure Cost Estimate

Table VII.C.5. - Land-based Units Closed under Interim Status

Table VII.D. - Unit Post-Closure Cost Estimate

Table VII.E.1. - Permitted Unit Closure Cost Summary

Table VII.E.2. - Permitted Unit Post-Closure Cost Summary

VIII. Financial Assurance

- A. Financial Assurance Information Requirements for all Applicants
- B. Applicant Financial Disclosure Statements
- C. Applicants Requesting Facility Expansion, Capacity Expansion, or New Construction

Table VIII.C. - Estimated Capital Costs

IX. Releases From Solid Waste Units And Corrective Action

- A. Preliminary Review Checklists
- B. Appendices to Preliminary Review
- C. Preliminary Review Submittal Format

X. Air Emission Standards

Attachment C Rev. 01/10/2011

- A. Process Vents
- B. Equipment Leaks
- C. Tanks, Surface Impoundments, and Containers
- D. Optional TCEQ Office of Air Quality Information

Table X.A. - Process Vents

Table X.B. - Equipment Leaks

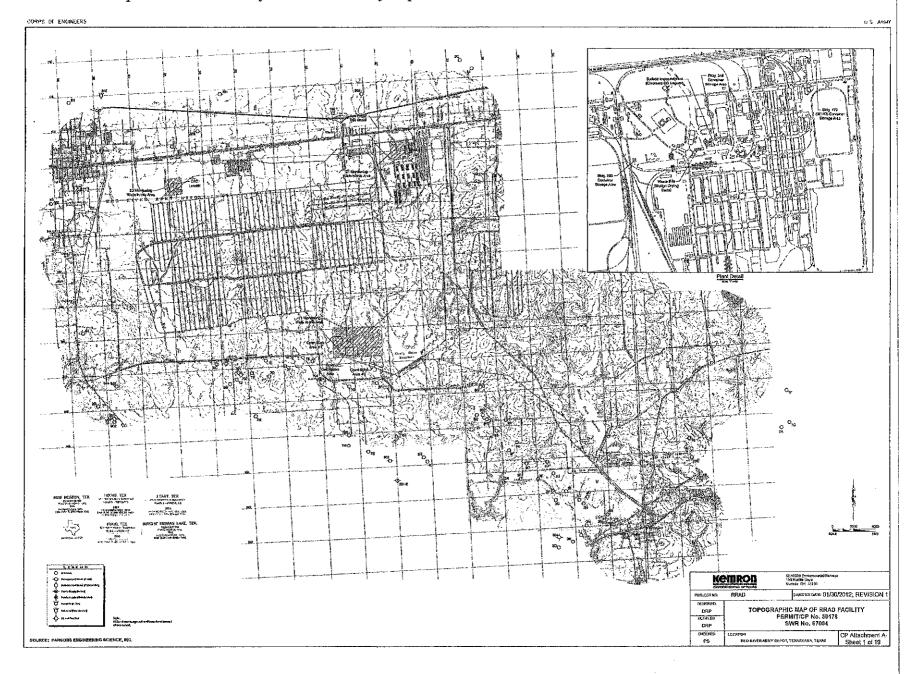
XI. Compliance Plan

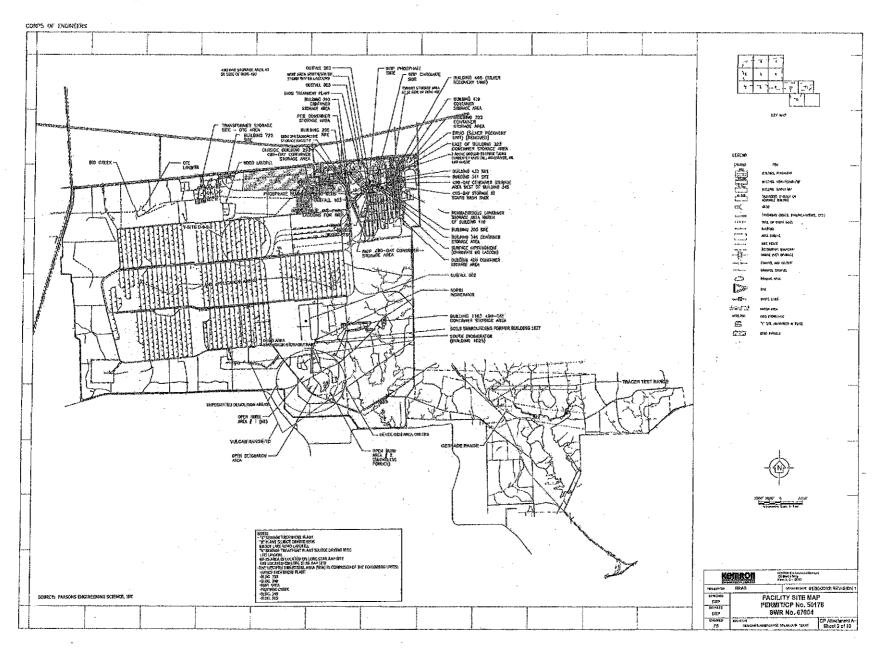
- A. Site Specific Information
- B. Groundwater Protection Standard
- C. Compliance Monitoring Program
- D. Corrective Action Program
- E. Cost Estimates for Financial Assurance
- Table XI.A.1. Facility History for Waste Management Units
- Table XI.E.1. Corrective Action Program Cost Estimate
- Table XI.E.2. Groundwater Monitoring Cost Estimate
- Table XI.E.3. Financial Assurance Summary
- CP Table I Waste Management Units and Areas Subject to Groundwater Corrective
 Action and Compliance Monitoring
- CP Table II Solid Waste Management Units and Areas of Concern for which Corrective Action applies pursuant to 30 TAC 335.167
- CP T Table III Corrective Action Program Table of Detected Hazardous and Solid Waste Constituents and the Groundwater Protection Standard
- CP Table IIIA Corrective Action Program Table of Indicator Parameters and the Groundwater Protection Standard
- CP Table IV Compliance Monitoring Program Table of Hazardous and Solid Waste Constituents and Practical Quantitation Limits or Method Quantitation Limits for Compliance Monitoring
- CP Table IVA Compliance Monitoring Program Table of Detected Hazardous Constituents and the Groundwater Protection Standard for Compliance Monitoring
- CP Table V Designation of Wells by Function
- CP Table VI Compliance Period for RCRA-Regulated Units
- CP Table VIII Compliance Schedule
- Attachment A Alternate Concentration Limits
- Attachment B Well Design and Construction Specifications
- Attachment C Sampling and Analysis Plan
- XII. Confidential Material

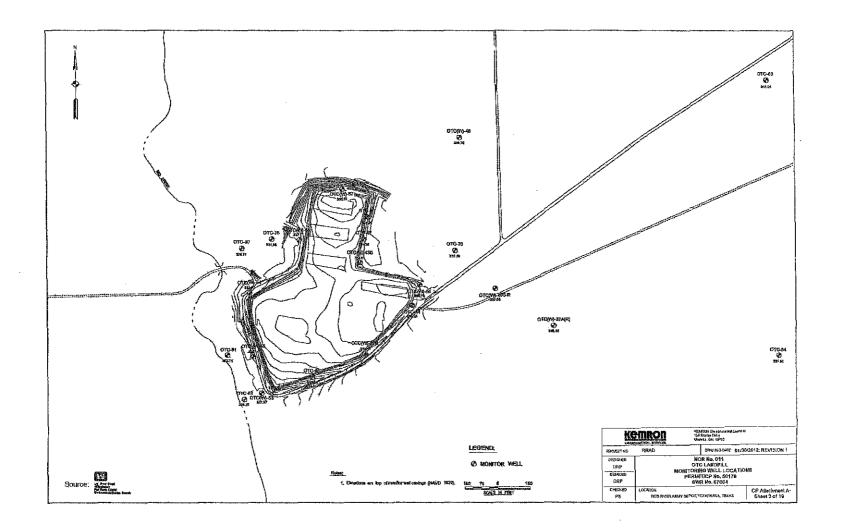
Permit No. 50178 Sheet 1 of 1
Permittee: U.S. Department of the Army – Red River Army Depot Attachment D

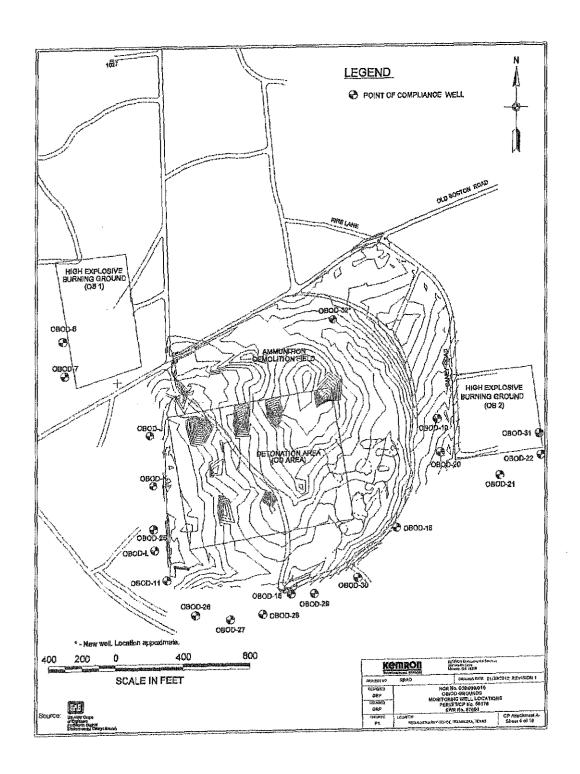
Authorized Facility Units

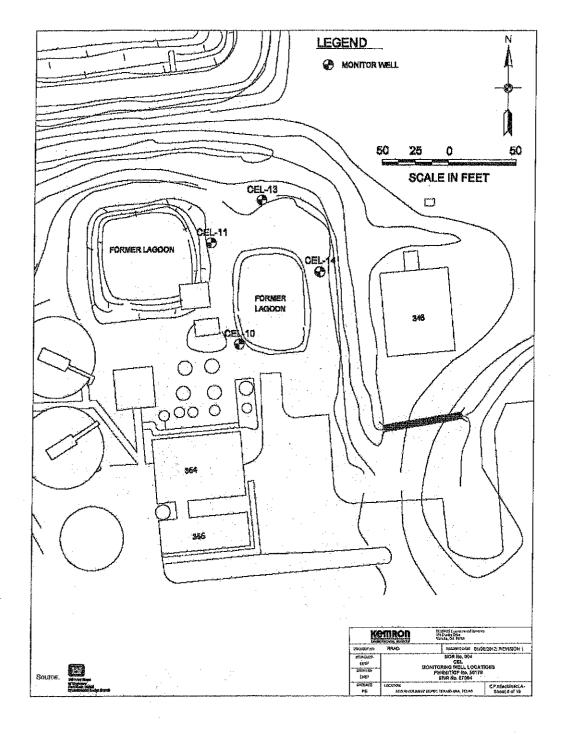
TCEQ Permit Unit No.	Unit Name	Unit Description	Capacity	
1	Building 293	Container storage area, enclosed, identified as Building 293.	420 – 55 gallon drums, 23,100 gallons total	
2	Building 346	Container storage area, enclosed, identified as Building 346.	270 – 55 gallon drums, 14,850 gallons total	
3	Building 479	Container storage area, enclosed, identified as the DRMO Building.	736 – 55 gallon drums, 40,480 gallons total	
4	Not Applicable	Not Used	Not Applicable	
5	Sludge Drying Bed	Waste Pile, maximum surface area of 0.056 acres, dimensions of 56.2 feet in length and 44.5 feet in width. Closed. Closure Certification accepted by TCEQ on April 28, 2005.	21,000 gallons	
6	Incinerator	Rotary kiln, identified as APE 1236 Deactivation Furnace. Closed. No longer authorized for trial burn or processing of waste.	Not Applicable	
7	Open Burning Area No. 1	Open burning area, sixteen rocket burning tubes and four burning pans with trays, maximum surface area of 6.44 acres, dimensions of approximately 400 feet in length by 700 feet in width. Inactive. To be closed. No additional wastes to be processed in this unit.	600 tons per year	
8	Open Burning Area No. 2	Open burning area, smokeless powder nine burning pans and containment trays, maximum surface area of 5.74 acres, dimensions of approximately 500 feet in length by 500 feet in width. Burn area for Spartan Stage 1 rocket motors will be comprised of two earthen berms 9 feet in height, surrounding structure of Hercules blocks (48x48x32) stacked 3 high to create a 3-sided structure 8 feet in height. Inactive. To be closed. No additional wastes to be processed in this unit.	750 tons per year	
9	Open Detonation Area	Open detonation area, maximum surface area of 18.36 acres, dimensions of approximately 1000 feet in length by 800 feet in width. Inactive. To be closed. No additional wastes to be processed in this unit.	1,500 tons per year	
10	Chromate Equalization Lagoon	Surface impoundment, closed, authorized for post-closure care activities only. No additional waste may be managed in this unit.	109,000 gallons	
11	OTC Landfill	Landfill, closed, identified as Ordnance Training Center (OTC) Landfill, Burial Sites Nos. 1-4, authorized for post-closure care activities only. No additional waste may be managed in this unit.	3,750,000 pounds	



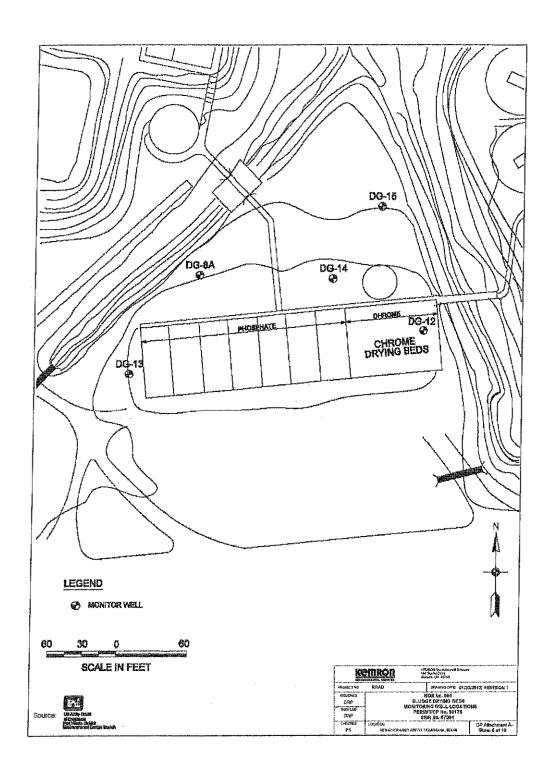


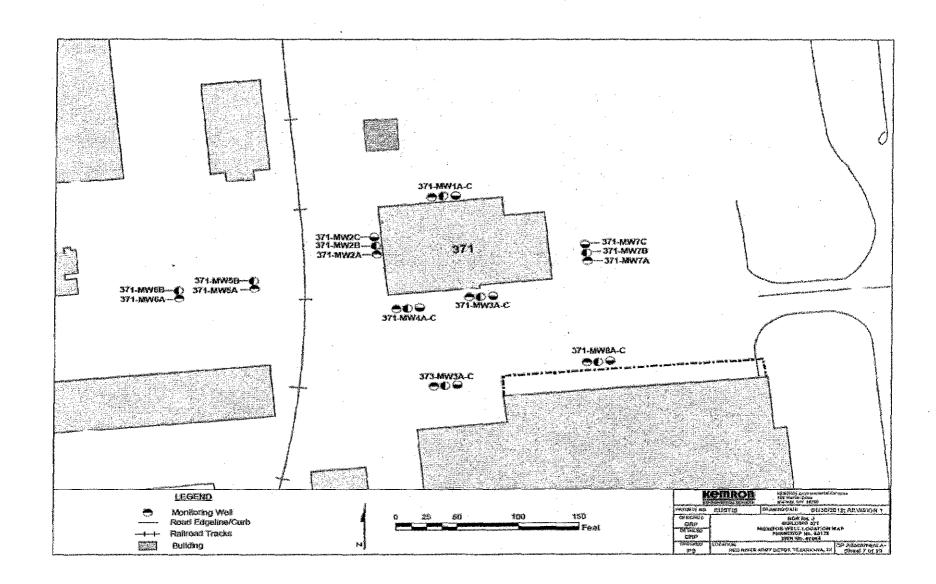


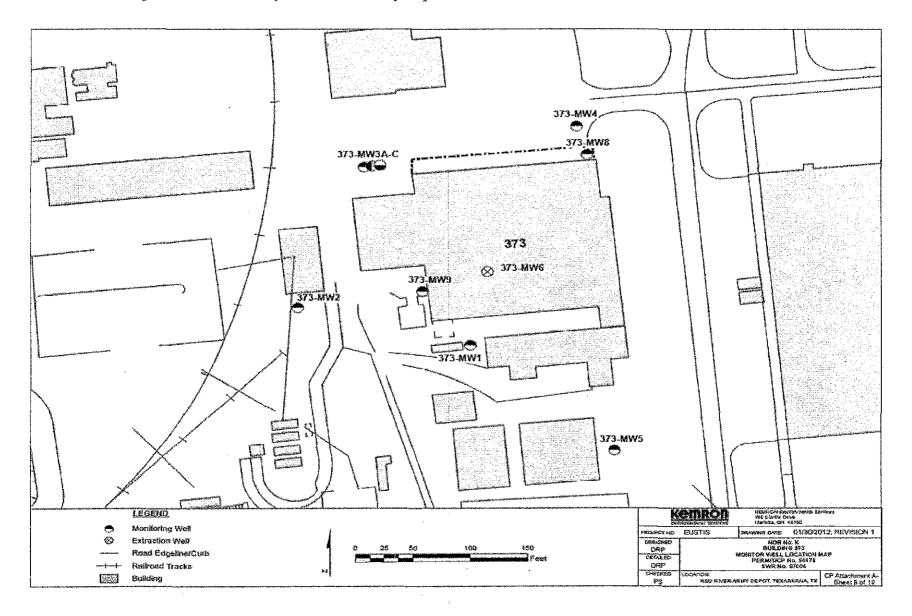


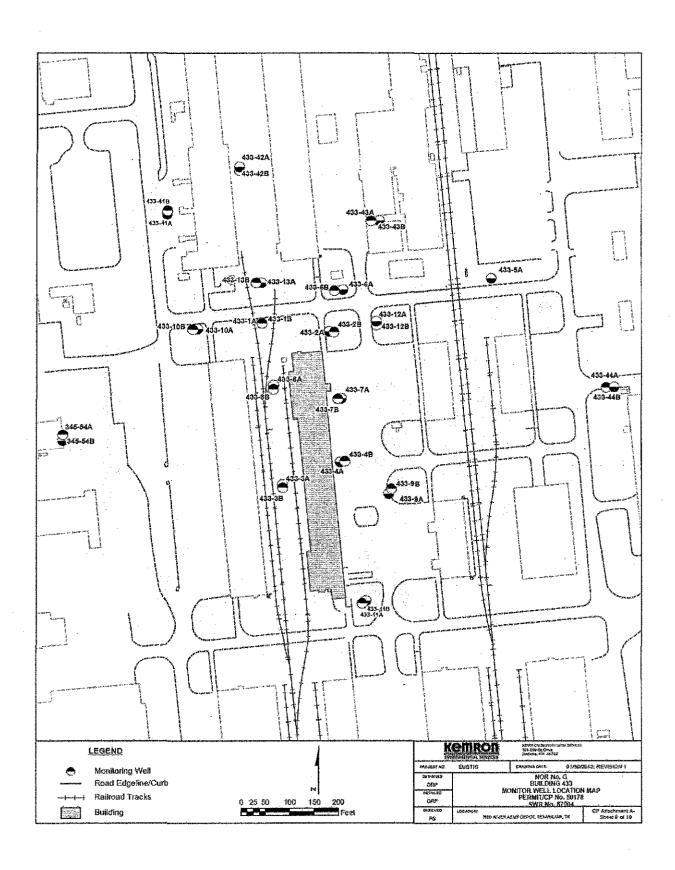


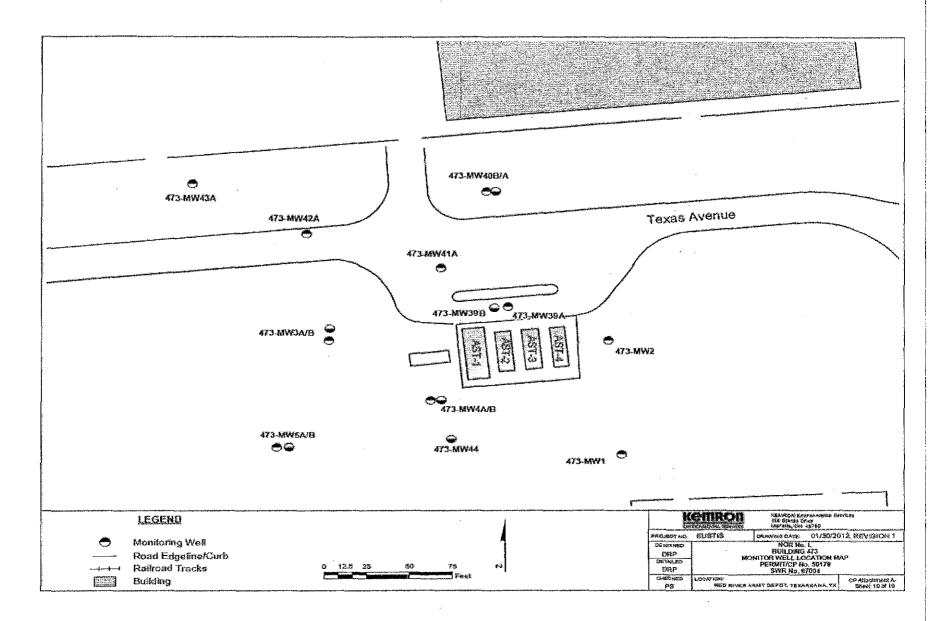
Permit No. 50178 — Continuation Sheet 6 of 19
Permittee: U.S. Department of the Army – Red River Army Depot CP Attachment A

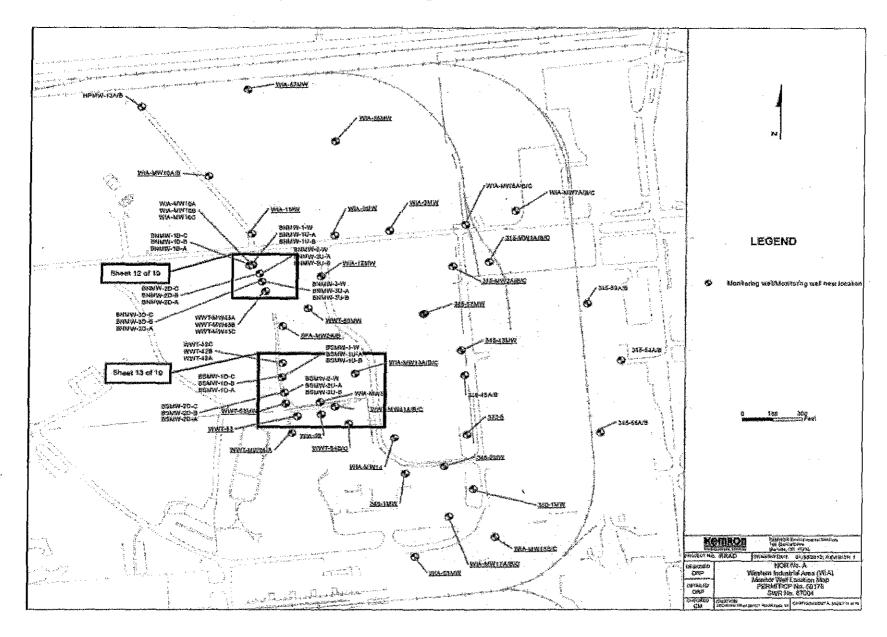




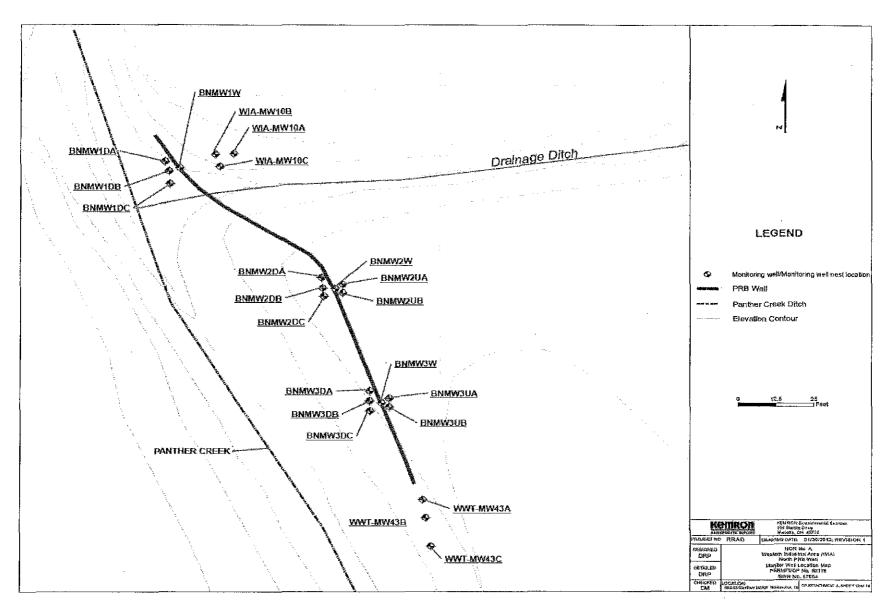


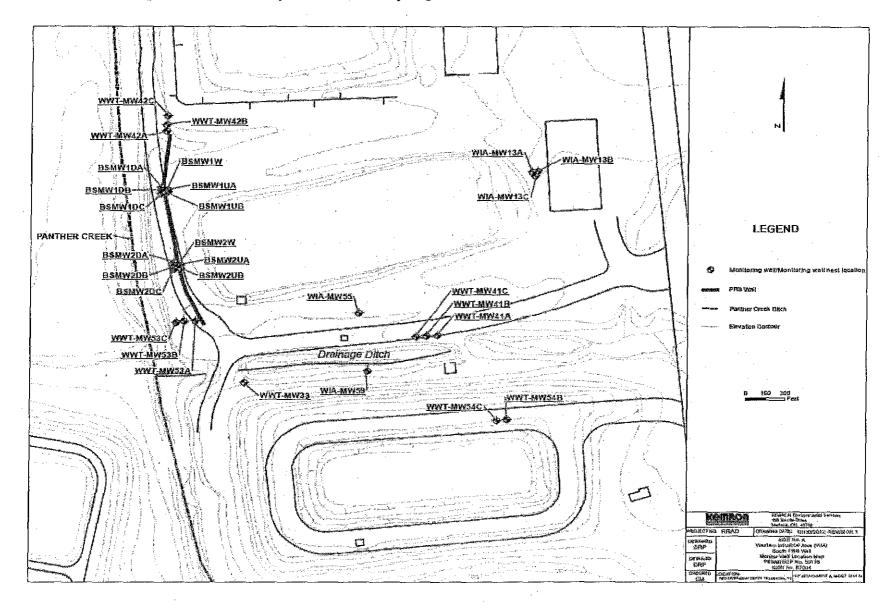




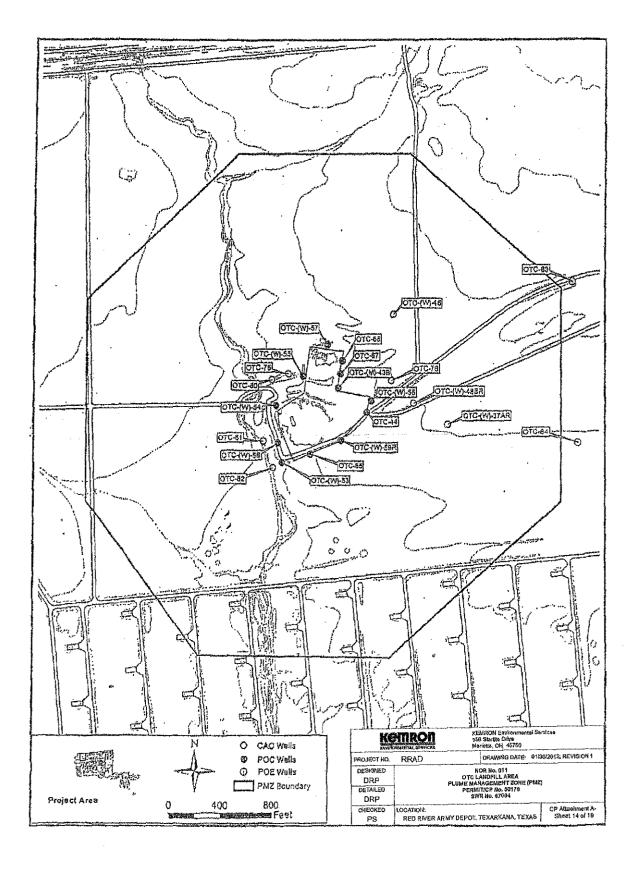


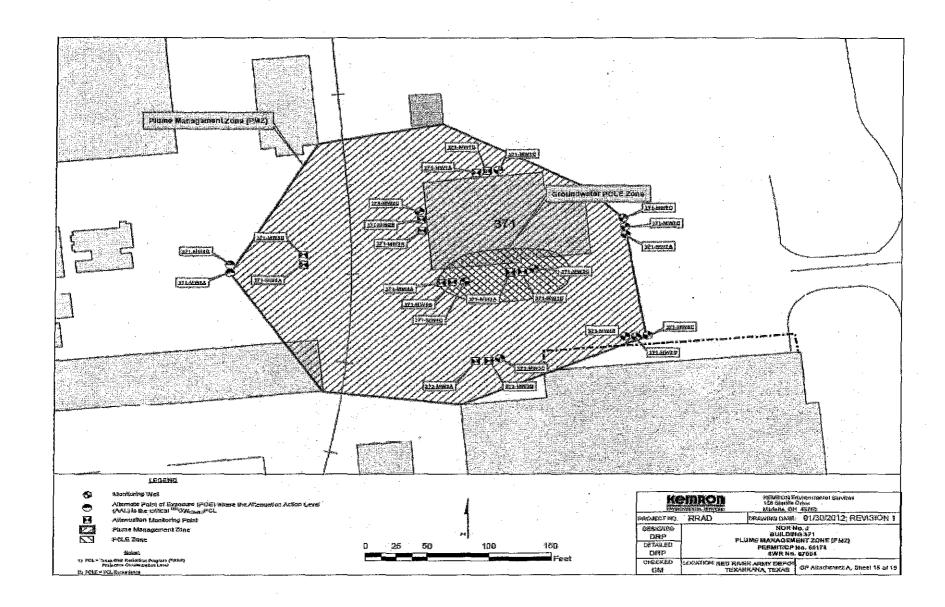
Permit No. 50178 Continuation Sheet 12 of 19
Permittee: U.S. Department of the Army – Red River Army Depot CP Attachment A

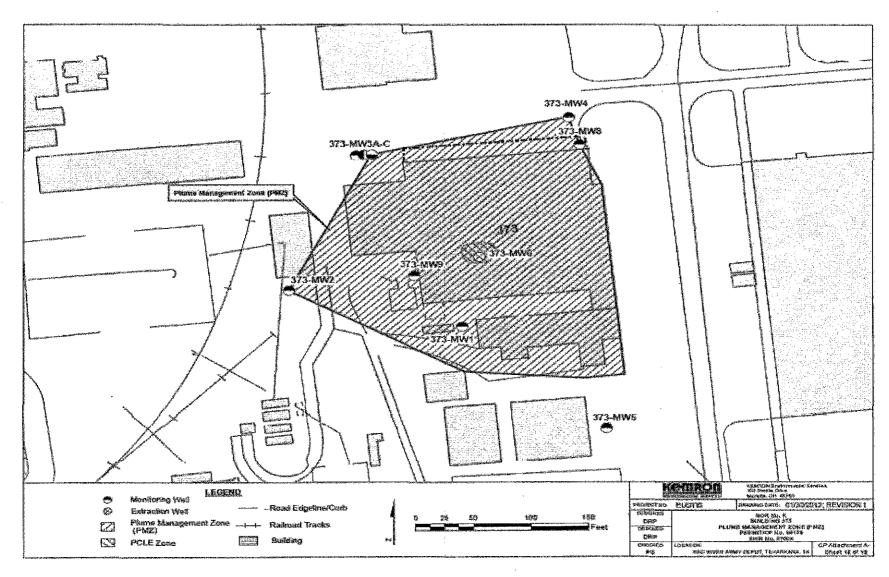


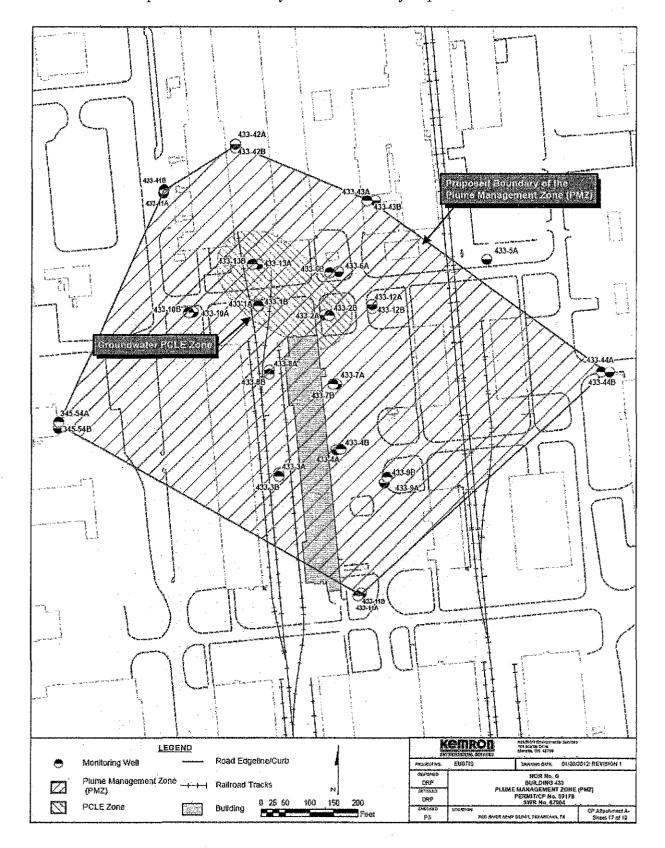


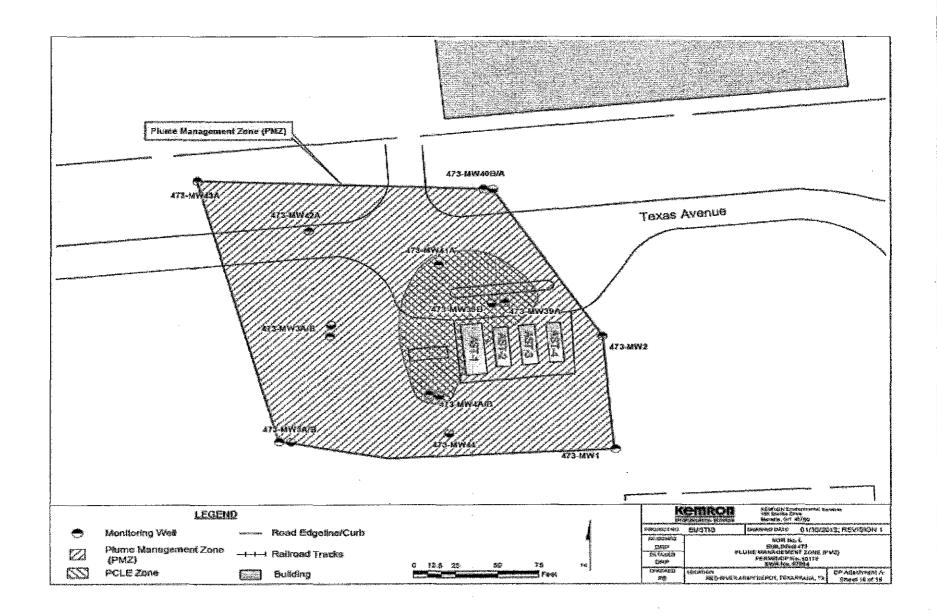
-Permit-No. 50178 Continuation Sheet 14 of 19
-Permittee: U.S. Department of the Army – Red River Army Depot CP Attachment A

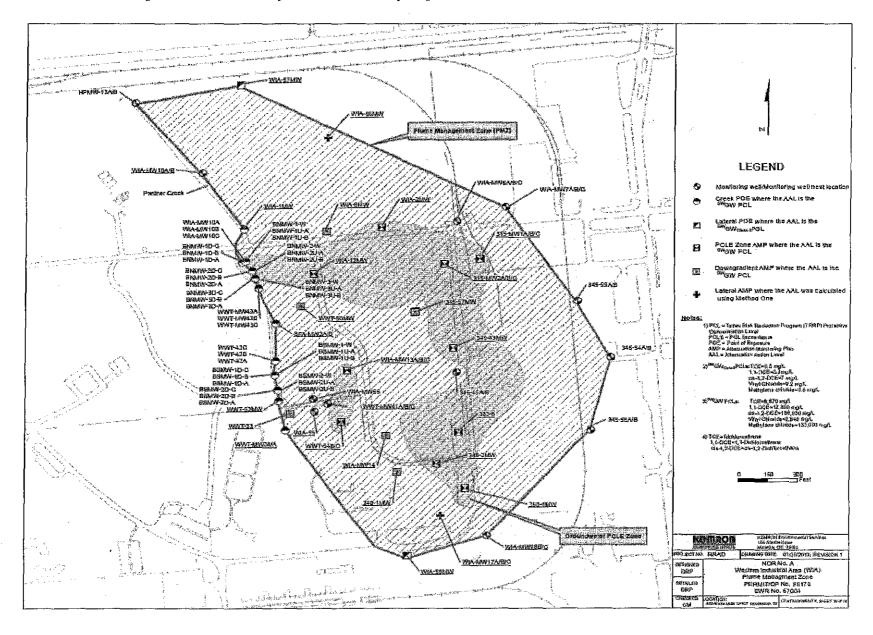










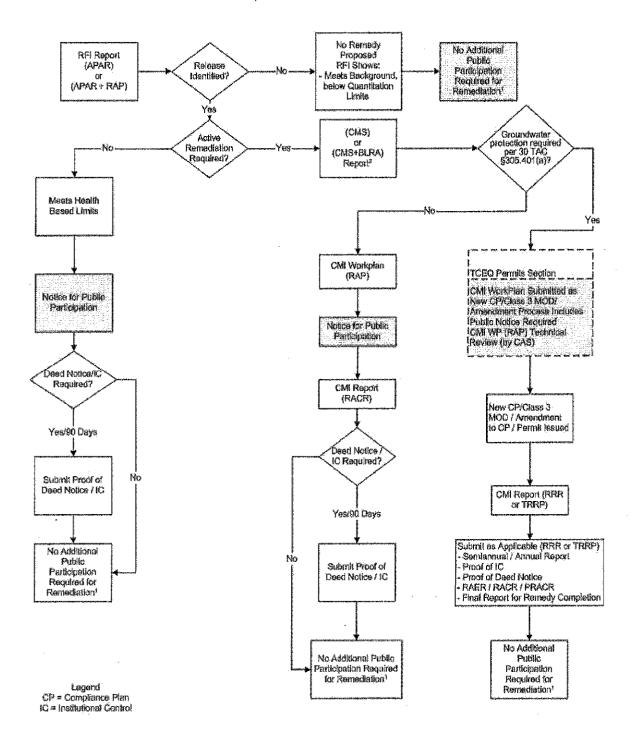


Permittee: U.S. Department of the Army – Red River Army Depot

CP Attachment B, Sheet 1 of 1

Public Participation in HSWA Corrective Action

6/22/2005



¹ To incorporate a Status Change to RFI unit(s) in the Permit or CP Requires Modification and Public Notice through the Permits Section 2 As Required by Rule, Permit, or CP

CP Attachment C: Well Design, Construction, Installation, Certification, Plugging and Abandonment Procedures and Specifications

- 1. The Permittee shall use well drilling methods that minimize potential adverse effects on the quality of water samples withdrawn from the well, and that minimize or eliminate the introduction of foreign fluids into the borehole.
- 2. All wells constructed to meet the terms of this Compliance Plan shall be constructed such that the wells can be routinely sampled with a pump, bailer, or alternate sampling device. Piping associated with recovery wells should be fitted with sample ports or an acceptable alternative sampling method to facilitate sampling of the recovered groundwater on a well by well basis.
- 3. Above the saturated zone the well casing may be two (2)-inch diameter or larger schedule 40 or 80 polyvinyl chloride (PVC) rigid pipe or stainless steel or polytetrafluoroethylene (PTFE or "teflon") or an approved alternate material. The PVC casing must bear the National Sanitation Foundation logo for potable water applications (NSF-pw). Solvent cementing compounds shall not be used to bond joints and all connections shall be flush-threaded. In and below the saturated zone, the well casing shall be stainless steel or PTFE.

The Permittee may use PVC or fiberglass reinforced resin as an alternate well casing material in and below the saturated zone provided that it yields samples for groundwater quality analysis that are unaffected by the well casing material.

- 4. The Permittee shall replace any well that has deteriorated due to incompatibility of the casing material with the groundwater contaminants or due to any other factors. Replacement of the damaged well shall be completed within ninety (90) days of the date of the inspection that identified the deterioration.
- 5. Well casings and screens shall be steam cleaned prior to installation to remove all oils, greases, and waxes. Well casings and screens made of fluorocarbon resins shall be cleaned by detergent washing.
- 6. For wells constructed after the date of issuance of this Compliance Plan, the screen length shall not exceed ten (10) feet within a given transmissive zone unless otherwise approved by the Executive Director. Screen lengths exceeding ten (10) feet may be installed in groundwater recovery or injection wells to optimize the groundwater remediation process in accordance with standard engineering practice.
- 7. The Permittee shall design and construct the intake portion of a well so as to allow sufficient water flow into the well for sampling purposes and minimize the passage of formation materials into the well during pumping. The intake portion of a well shall consist of commercially manufactured stainless steel or PTFE screen or approved alternate material. The annular space between the screen and the borehole shall be filled with clean siliceous granular material (i.e., filter pack) that has a proper size gradation to provide mechanical retention of the formation sand and silt. The well screen slot size shall be compatible with the filter pack size as determined by sieve analysis data. The filter pack should extend no more than three (3) feet above the well screen. A silt trap, no greater than one (1) foot in length, may be added to the bottom of the well screen to collect any silt that may enter the well. The bottom of the well casing shall be capped with PTFE or stainless steel or approved alternate material.

Groundwater recovery and injection wells shall be designed in accordance with standard

engineering practice to ensure adequate well production and accommodate ancillary equipment. Silt traps exceeding one (1) foot may be utilized to accommodate ancillary equipment. Well heads shall be fitted with mechanical wellseals, or equivalent, to prevent entry of surface water or debris.

8. A minimum of two (2) feet of pellet or granular bentonite shall immediately overlie the filter pack in the annular space between the well casing and borehole. Where the saturated zone extends above the filter pack, pellet or granular bentonite shall be used to seal the annulus. The bentonite shall be allowed to settle and hydrate for a sufficient amount of time prior to placement of grout in the annular space. Above the minimum two (2)-foot thick bentonite seal, the annular space shall be sealed with a cement/bentonite grout mixture. The grout shall be placed in the annular space by means of a tremie pipe or pressure grouting methods equivalent to tremie grouting standards.

The cement/bentonite grout mixture or TCEQ approved alternative grout mixture shall fill the annular space to within two (2) feet of the surface. A suitable amount of time shall be allowed for settling to occur. The annular space shall be sealed with concrete, blending into a cement apron at the surface that extends at least two (2) feet from the outer edge of the monitor well for above-ground completions. Alternative annular-space seal material may be proposed with justification and must be approved by the Executive Director prior to installation.

In cases where flush-to-ground completions are unavoidable, a protective structure such as a utility vault or meter box should be installed around the well casing and the concrete pad design should prevent infiltration of water into the vault. In addition, the Permittee must ensure that 1) the well/cap juncture is watertight; 2) the bond between the cement surface seal and the protective structure is watertight; and 3) the protective structure with a steel lid or manhole cover has a rubber seal or gasket.

- 9. Water added as a drilling fluid to a well shall contain no bacteriological or chemical constituents that could interfere with the formation or with the chemical constituents being monitored. For groundwater recovery and injection wells, drilling fluids containing freshwater and treatment agents may be utilized in accordance with standard engineering practice to facilitate proper well installation. In these cases, the water and agents added should be chemically analyzed to evaluate their potential impact on in-situ water quality and to assess the potential for formation damage. All such additives shall be removed to the extent practicable during well development.
- 10. Upon completion of installation of a well, the well must be developed to remove any fluids used during well drilling and to remove fines from the formation to provide a particulate-free discharge to the extent achievable by accepted completion methods and by commercially available well screens. Development shall be accomplished by reversing flow direction, surging the well or by air lift procedures. No fluids other than formation water shall be added during development of a well unless the aquifer to be screened is a low-yielding water-bearing aquifer. In these cases, the water to be added should be chemically analyzed to evaluate its potential impact on in-situ water quality, and to assess the potential for formation damage.

For recovery and injection wells, well development methods may be utilized in accordance with standard engineering practice to remove fines and maximize well efficiency and specific capacity. Addition of freshwater and treatment agents may be utilized during well development or re-development to remove drilling fluids, inorganic

scale or bacterial slime. In these cases, the water and agents added should be chemically analyzed to evaluate their potential impact on in-situ water quality and to assess the potential for formation damage. All such additives shall be removed to the extent practicable during well development.

- 11. Each well shall be secured and/or designed to maintain the integrity of the well borehole and groundwater.
- 12. The Permittee shall protect the above-ground portion of the well by bumper guards and/or metal outer casing protection when wells are located in traffic areas or outside the secured plant area.
- 13. The attached Table Of Well Construction Details is to be completed or updated for each well installed and kept on site. Items in the table that require a yes or no answer indicate diagrams plans, or procedures that shall be kept on site and made available to inspection. The completed table and other records shall include all of the following information:
 - name/number of well (well designation);
 - intended use of the well(sampling, recovery, etc.);
 - date/time of construction;
 - drilling method and drilling fluid used;
 - well location (+ 0.5 ft.);
 - bore hole diameter and well casing diameter;
 - well depth (+ 0.1 ft.);
 - drilling and lithologic logs;
 - depth to first saturated zone;
 - casing materials;
 - screen materials and design;
 - casing and screen joint type;
 - screen slot size/length;
 - filter pack material/size:
 - filter pack volume (how many bags, buckets, etc.);
 - filter pack placement method;
 - sealant materials;
 - sealant volume (how many bags, buckets, etc.);
 - sealant placement method;
 - surface seal design/construction;
 - well development procedure;
 - type of protective well cap;
 - ground surface elevation (+ 0.01 ft. MSL);
 - top of casing elevation (+ 0.01 ft. MSL); and,
 - detailed drawing of well (include dimensions).
- 14. The Permittee shall clearly mark and maintain the well number on each well at the site.
- 15. The Permittee shall measure and keep a record of the elevation of the top of each well casing in feet above mean sea level to the nearest 0.01 foot and permanently mark the measuring point on the well. The Permittee shall compare old and new elevations from previously surveyed wells and determine a frequency of surveying not to exceed five (5) year intervals.
- 16. A well's screened interval shall be appropriately designed and installed to meet the well's specific objective (i.e., either DNAPL, LNAPL, both, or other objective of the well). All

wells designed to detect, monitor, or recover DNAPL must be drilled to intercept the bottom confining layer of the aquifer. The screened interval to detect DNAPL should extend from the top of the lower confining layer to above the portion of the aquifer saturated with DNAPL. The screened interval for all wells designed to detect, monitor, or recover LNAPL must extend high enough into the vadose zone to provide for fluctuations in the seasonal water table. In addition, the sandpacks for the recovery or monitoring well's screened interval shall be coarser than surrounding media to ensure the movement of NAPL to the well.

Certification, Plugging and Abandonment Procedures

- 17. Prior to installation of a Point of Compliance (POC), FOA Boundary of Compliance (FBOC), Point of Exposure (POE), Alternate Point of Exposure (APOE) or Background replacement well listed in CP Table V, the Permittee shall submit to the Executive Director for approval, the replacement well specifications and an explanation of why the well is being replaced. For any such well to be considered as a replacement well and not as a new well, the well shall have no substantive design changes from the well being replaced as determined by the Executive Director. The well shall be drilled within fifteen (15) feet of the well being replaced unless an alternate location is authorized by the Executive Director. The Permittee shall submit a replacement well certification to the Executive Director in accordance with CP Table VII and CP Attachment C, Provision 19.
- 18. Plugging and abandonment of a Corrective Action System Background, POC, FBOC, POE, and/or APOE wells in <u>Provision XI.B.1</u> shall be subject to the Compliance Plan modification provisions in 30 TAC §305 Subchapter D. Plugging and abandonment of Corrective Action Observation, Corrective Action System and/or Attenuation Monitoring Point wells in <u>Provision XI.B.2</u>, shall commence upon written approval of the Executive Director. The well shall be plugged and abandoned in accordance with requirements of this Attachment C. The Permittee shall certify proper plugging and abandonment in accordance with CP Table VII and CP Attachment C, <u>Provision 19</u>.
- 19. The Permittee shall complete construction or plugging and abandonment of each well in accordance with the requirements of this Compliance Plan and 16 TAC Chapter 76 and shall certify such proper construction or plugging and abandonment in the first report submitted pursuant to CP Table VII following installation or plugging and abandonment. Copies of the State of Texas Plugging Report filed with the Texas Department of Licensing and Regulation and completion logs for each newly installed or replaced well shall be included with the report. The certification shall be prepared by a qualified geologist or geotechnical engineer. Each well certification shall be accompanied by a certification report, including an accurate log of the soil boring, which thoroughly describes and depicts the location, elevations, material specifications, construction details, and soil conditions encountered in the boring for the well. A copy of the certification and certification report shall be kept on-site, and a second copy shall be submitted to the Executive Director. Required certification shall be in the following format, edited as appropriate, and shall specify the Compliance Plan Number as indicated:

"This is to certify that installation (or plugging and abandonment) of the following facility components authorized or required by TCEQ Compliance Plan No. (Insert CP number) has been completed, and that construction (or plugging) of said components has been performed in accordance with and in compliance with the design and construction specifications of this Compliance Plan No. (Insert CP number):" (Add description of facility components with reference to applicable Compliance Plan

Permit No. 50178 Continuation Sheet 5 of 7
Permittee: U.S. Department of the Army – Red River Army Depot CP Attachment C

provisions).

- 20. Wells may be replaced at any time the Permittee or Executive Director determines that the well integrity or materials of construction or well placement no longer enable the well to yield samples representative of groundwater quality.
- 21. The Permittee shall plug soil test borings and wells removed from service after issuance of the Compliance Plan with a cement/bentonite grout mixture so as to prevent the preferential migration of fluids in the area of the borehole. Certification of each plugging shall be reported in accordance with <u>Provision 19</u> of CP Attachment C of this Compliance Plan. The plugging of wells shall be in accordance with 16 TAC Chapter 76 dealing with Well Drilling, Completion, Capping and Plugging.

Table Of Well Construction Details

Well number				
Hole diameter (in)				
Well diameter (in)				
Total borehole depth (ft)				
Constructed well depth (ft)				
Well location available (Y/N)	-			
Intended Use of Well (sampling, recovery, etc.)				
Drilling & lithologic logs available (Y/N)				
Drill method		· · · · · · · · · · · · · · · · · · ·		
Date drilled	<u>.</u>			
Casing L.D.(in)	· · · · · · · · · · · · · · · · · · ·			
Casing type/materials	<u> </u>			
How joined		· .		
Stick-up length	·			
Top of easing (+0.01 MSL)				 -
Ground surface elevation (+0.01 MSL)				
Capped/lockable				
Surface pad size(ft)				
Detailed drawing of well (include dimensions) Y/N				
Depth to surface seal(ft)				
Surface seal design & construction available (Y/N)				
Well development procedure available (Y/N)				
Annulus fill			,	
Depth to annulus seal(ft)				

Continuation Sheet 7 of 7 CP Attachment C

Depth to gravel pack(ft)			
Depth to 1st saturated zone			
Length of gravel pack(ft)			
Size-gravel pack			
Filter pack volume (how many bags, buckets, etc.)			
Filter pack placement method			
Depth to screen(ft)			
Sealant materials			
Sealant volume (how many bags, buckets, etc.)		·	
Sealant placement method			
Screen slot size/length(in)			
Screen type			
Screen length(ft)			
Blank length(ft)			
Dev. method			
Well coordinates (lat & long)	. —	4	