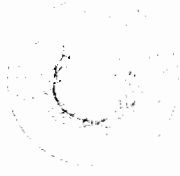


Bryan W. Shaw, Ph.D., P.E., *Chairman*  
Toby Baker, *Commissioner*  
Zak Covar, *Commissioner*  
Richard A. Hyde, P.E., *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

June 3, 2014

Mr. Kenneth A. Hoar  
Assistant Manager for Environment, Safety, Health & Quality  
U.S. Department of Energy/National Nuclear Security Administration  
Pantex Plant  
P.O. Box 30030  
Amarillo, TX 79120-0030

Re: Transmittal of Permit/Compliance Plan Renewal  
Industrial Solid Waste Registration No. 30459  
Hazardous Waste Permit No. 50284  
EPA I.D. No. TX4890110527  
Tracking No. 17100814; RN100210756/CN600125009

Dear Mr. Hoar:

Enclosed is a signed copy of the above-referenced permit/compliance plan renewal issued pursuant to the Texas Health and Safety Code, Chapter 361, in response to your application dated April 10, 2013.

This action is taken under authority delegated to the Executive Director of the Texas Commission on Environmental Quality.

Questions regarding the permit/compliance plan renewal should be directed to Ms. Jean Shaw, P.E. of the Industrial & Hazardous Waste Permits Section at (512) 239-1823. If you respond in writing, please include mail code MC 130 in the mailing address.

Sincerely,

Handwritten signature of Earl Lott in black ink.

Earl Lott, Director  
Waste Permits Division

EL/JS/sdm

Enclosure



Bryan W. Shaw, Ph.D., P.E., *Chairman*  
Toby Baker, *Commissioner*  
Zak Covar, *Commissioner*  
Richard A. Hyde, P.E., *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
*Protecting Texas by Reducing and Preventing Pollution*

June 3, 2014

Kenneth Hoar, Assistant Manager for  
Environment, Safety, Health & Quality  
U.S. Department of Energy  
National Nuclear Security Administration  
Pantex Plant  
P.O. Box 30030  
Amarillo, Texas 79120-0030

RE: U.S. Department of Energy / National Nuclear Security Administration Pantex Plant  
Permit No. 50284

This letter is your notice that the Texas Commission on Environmental Quality (TCEQ) executive director (ED) has issued final approval of the above-named application. According to 30 Texas Administrative Code (TAC) Section 50.135 the approval became effective on the date the ED signed the permit or other approval. A copy of the final approval is enclosed and cites the effective date.

You may file a **motion to overturn** with the chief clerk. A motion to overturn is a request for the commission to review the TCEQ executive director's approval of the application. Any motion must explain why the commission should review the TCEQ executive director's action. According to 30 TAC Section 50.139 an action by the ED is not affected by a motion to overturn filed under this section unless expressly ordered by the commission.

A motion to overturn must be received by the chief clerk within 23 days after the date of this letter. An original and 7 copies of a motion must be filed with the chief clerk in person or by mail. The Chief Clerk's mailing address is Office of the Chief Clerk (MC 105), TCEQ, P.O. Box 13087, Austin, Texas 78711-3087. On the same day the motion is transmitted to the chief clerk, please provide copies to Robert Martinez, Environmental Law Division Director (MC 173), and Vic McWherter, Public Interest Counsel (MC 103), both at the same TCEQ address listed above. If a motion is not acted on by the commission within 45 days after the date of this letter, then the motion shall be deemed overruled.

You may also request **judicial review** of the ED's approval. According to Texas Water Code Section 5.351 a person affected by the ED's approval must file a petition appealing the ED's approval in Travis County district court within 30 days after the effective date of the approval. Even if you request judicial review, you still must exhaust your administrative remedies, which includes filing a motion to overturn in accordance with the previous paragraphs.

Individual members of the public may seek further information by calling the TCEQ Public Education Program, toll free, at 1-800-687-4040.

Sincerely,

A handwritten signature in cursive script that reads "Bridget C. Bohac".

Bridget C. Bohac  
Chief Clerk

BCB/lg

cc: Vic McWherter, TCEQ Public Interest Counsel (MC 103)





**Texas Commission on  
Environmental Quality  
Austin, Texas**

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. 50284  
EPA ID. No. TX4890110527  
ISWR No. 30459

This permit supersedes and replaces  
Hazardous Waste Permit No. 50284  
Issued October 21, 2003

Name of Permittee: U.S. Department of Energy  
National Nuclear Security Administration  
Pantex Plant  
P.O. Box 30030  
Amarillo, TX 79120

Site Owner: U.S. Department of Energy  
P.O. Box 30030  
Amarillo, TX 79120

Classification of Site: Hazardous and Nonhazardous Class 1 industrial solid waste on-site  
storage and processing, 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 and process of wastes shall expire midnight, ten (10) years after the date of renewal permit approval. This permit was originally issued on April 25, 1991.

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.

Issued Date: May 30, 2014

  
For the Commission

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National Nuclear Security Administration  
Pantex Plant

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A - Legal Description of Facility  
B - Facility Map  
C - List of Incorporated Application Materials  
D - List of Permitted Facility Units  
E - Maps Indicating Soil and Sediment Locations  
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### **Permit/Compliance Plan Acronyms**

ACL – Alternate Concentration Limit  
ALR – Action Leakage Rate  
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  
CCC – Coastal Coordination Council  
CEMS – Continuous Emissions Monitoring System  
CFR – Code of Federal Regulations  
CMI – Corrective Measures Implementation  
CMP – Texas Coastal Management Program  
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  
ppm – Parts Per Million  
ppmv – Parts Per Million by Volume  
PQL – Practical Quantitation Limit  
Psi – Pounds Per Square Inch  
QA/QC – Quality Assurance/Quality Control  
RACR – Response Action Completion Report  
RAER – Response Action Effectiveness Report  
RAP – Response Action Plan (for Action Leakage Rate in landfills)  
RAP – Remedial Action Plan

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National Nuclear Security Administration  
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RCRA – Resource Conservation and Recovery Act

RFA – RCRA Facility Assessment

RFI – RCRA Facility Investigation

RRR – TCEQ Risk Reduction Rules

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

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”

THC – Total Hydrocarbons

TRRP – Texas Risk Reduction Program

## I. Facility Description

### A. Size and Location of Site

A permit is issued to U.S. Department of Energy/National Nuclear Security Administration, Pantex Plant (hereafter called the permittee), to operate a hazardous waste processing and storage facility located at 955 Farm to Market Road 2373, Panhandle, in Carson County, Texas, and within the drainage area of Segment No. 0224 in the North Fork of the Red River Basin (North Latitude 35°19'11", West Longitude 101°35'07"). However, due to area meteorological, topographic and geologic conditions, most surface water drains to playa lakes located on the site. The legal description of the facility submitted in Permit No. 50284 Application dated April 10, 2013, 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 April 10, 2013 and revised on May 29, 2013, November 5, 2013, and February 5, 2014, 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 Permit 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.

[II.A.]

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 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.

Open Burn/Open Detonation (OB/OD) Units – Units designed for the treatment of energetics. These units have no secondary containment. The OB/OD units are unit numbers 21, 24, 25, 26, 27, 28, 29, 30, 31, 32, and 43.

RCRA Burning Ground Area – The area encompassing RCRA units numbers: 21, 24, 25, 26, 27, 28, 29, 30, 31, 32, and 43.

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 unit, the permittee may not commence storage, processing, or disposal of solid waste; and for a facility unit being modified, the permittee may not process, store or dispose of solid waste in the modified portion of the facility unit,

Permittee: U.S. Department of Energy  
 National Nuclear Security Administration  
 Pantex Plant

[II.A.6.]

except as provided in 30 TAC Section 305.69 (relating to Solid Waste Permit Modification at the Request of the Permittee) or 30 TAC Section 335.2(d), until the following has been accomplished [30 TAC Section 305.144]:

- a. 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 unit 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:

“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. 50284 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. 50284.”

- b. A certification report has been submitted, with the certification described in Provision II.A.6.a., 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.
- c. The Executive Director has inspected the modified or newly constructed facility unit 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.

Permittee: U.S. Department of Energy  
 National Nuclear Security Administration  
 Pantex Plant

[II.A.]

\* 7. Land Disposal Restrictions

The permittee shall comply with the land disposal restrictions as found in 40 Code of Federal Regulations (CFR) Part 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.

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

The TCEQ has reviewed the permit application for consistency with the goals and policies of the Texas Coastal Management Program (CMP) in accordance with the regulations of the Coastal Coordination Council (CCC) and has determined that the permit is consistent with the applicable CMP goals and policies. [30 TAC Section 281.43(a)(1)]

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

permit No. 50284  
Permittee: U.S. Department of Energy  
National Nuclear Security Administration  
Pantex Plant

Continuation Sheet 12 of 57

[II.A.14.]

- 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 Provision II.A.14.c., 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 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).

15. Transfer of Ownership and/or Operational Control

The transfer of ownership and/or operational control of this permit is subject to the transfer requirements of 30 TAC Section 305.64 and permit modification requirements of 30 TAC Section 305.69. The new owner and/or operator seeking a transfer of ownership and/or operational control of this permit shall submit a Class 1 permit modification (with prior written approval by the Executive Director) at least 90 days prior to the scheduled transfer in accordance with 30 TAC Section 305.69(b)(2). Prior to the Executive Director issuing the permit modification transferring the permit, the new owner or operator shall provide a fully executed financial assurance mechanism satisfactory to the TCEQ Executive Director, for all existing units which have received waste and any corrective action required under this permit, in compliance with 30 TAC Chapter 37, Subchapter P. [30 TAC Section 305.64(g)]



[II.]

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.

[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 terms 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) working 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]:

[II.B.5.]

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

[II.B.]

9. Waste Minimization

The permittee shall annually certify, by March 1st for the previous calendar year, the following information [40 CFR 264.73(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 Monitoring Report

The permittee shall submit an Annual Monitoring Report as required by Section VI of this permit by April 15<sup>th</sup> of each year.

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. 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 Section 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.

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[II.C.1.]

- a. 30 TAC Chapter 305, Subchapter A: General Provisions;
- b. 30 TAC Chapter 305, Subchapter C: Application for Permit;
- c. 30 TAC Sections 305.61 - 305.69 (regarding amendments, renewals, transfers, corrections, revocation and suspension of permits);
- 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 305, Subchapter I: Hazardous Waste Incinerator Permits;
- h. 30 TAC Chapter 335, Subchapter A, Industrial Solid Waste and Municipal Hazardous Waste in General;
- i. 30 TAC Chapter 335, Subchapter B, Hazardous Waste Management General Provisions;
- j. 30 TAC Section 335.152, Standards;
- k. 30 TAC Sections 335.153 - 335.155 (regarding reporting of emergency situations and additional reports required);
- l. 30 TAC Sections 335.156 - 335.167 (regarding applicability of groundwater monitoring programs and corrective action requirements);
- m. 30 TAC Sections 335.175 - 335.176 (regarding special requirements for containers and bulk and containerized waste);
- n. 30 TAC Sections 335.177 - 335.179 (regarding general performance standard, cost estimate for closure, and financial assurance);
- o. 30 TAC Sections 335.325, 335.328 and 335.329 (regarding waste management fee assessment, fee payment, and records and reports);
- p. 30 TAC Chapter 335, Subchapter Q, Pollution Prevention: Source Reduction and Waste Minimization;
- q. 30 TAC Chapter 335, Subchapter S, Risk Reduction Standards
- r. 30 TAC Chapter 350, Texas Risk Reduction Program.  
 Issuance of this permit with incorporated rules in no way exempts the permittee from compliance with any other applicable state statute and/or Commission Rule.

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[II.C.]

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;
- 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;
- k. Subpart EE -- Hazardous Waste Munitions and Explosives Storage;
- l. 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.

[III.]

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

The permittee shall provide a twenty-four (24) hour surveillance system which continuously monitors and controls entry onto the active portion of the facility.

D. General Inspection Requirements

The permittee shall follow the inspection schedule contained in the permit application submittals identified in Section I.B. of this permit 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 Section I.B. of this permit. Copies of this plan shall be available to all employees involved in waste management at the facility.
2. 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;
  - b. Removal to an authorized industrial solid waste management facility or authorized off-site facility; or
  - c. Discharge in accordance with a wastewater discharge permit.

[III.E.]

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 Section I.B. of this permit, as required by 40 CFR 264.32.
  - 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 (Reserved)

**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 Section I.B. of this permit.

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. Nonhazardous industrial solid waste may be managed in any of the permitted units provided the total capacity of the unit is not exceeded.

Wastes authorized for storage and processing include those generated from facility sources.



[IV.B.]

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

The permittee may receive hazardous or non-hazardous waste which conforms to the waste authorized under the permit from the following off-site facilities:

- a. Wastes or waste residues and associated support material wastes generated off-site from the receipt, management, treatment, storage, packaging and/or processing of any waste generated at this facility. This includes the return of any unprocessed or untreated wastes and any additional ancillary packaging and support materials generated during the management of the original waste by a receiving facility. Wastes, including support material wastes, generated off-site from sanitization of materials derived from operations conducted at this facility.
- b. Wastes returned to this facility that are generated at off-site medical/emergency response facilities as a result of decontamination and medical treatment of personnel in response to emergency incidents that occur at this facility.
- c. Wastes generated off-site during implementation of corrective actions associated with the Corrective Action Program at this facility.
- d. Wastes resulting from response actions taken due to off-site transportation incidents involving wastes and materials shipped from this facility.
- e. Wastes that are generated off-site during the testing of Joint Test Assemblies (JTAs), or equivalent, that were produced at this facility.

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 the Atomic Energy Act of 1954 (as amended) or 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;
- c. Dioxin-containing wastes, identified by EPA as F020, F021, F022, F023, F026, and F027 wastes in 40 CFR 261.31;
- d. Garbage as defined in 30 TAC Section 330.3(56);
- e. Municipal Solid Waste as defined in 30 TAC Section 330.3(88);
- f. Special Waste from Health-Care Related Facilities subject to 25 TAC Part 1 or 30 TAC Chapter 330.

[IV.B.4]

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 Section IV.A. of this permit, 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

1. The permittee is authorized to operate the facility units listed in "Attachment D" for storage and processing 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

[V.A.3.]

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 Section I.B. At a minimum, the containment system must meet the requirements of 40 CFR 264.175.

A minimum of 24 inches of aisle space shall be maintained between double rows of 55 gallon drums or between all other storage containers. Storage containers shall be stacked no more than three high or to a height that would cause instability of the stack.

- C. Tanks and Tank Systems (Reserved)
- D. Surface Impoundments (Reserved)
- E. Waste Piles (Reserved)
- F. Land Treatment Units (Reserved)
- G. Landfills (Reserved)
- H. Incinerators (Reserved)
- I. Boilers/Industrial Furnaces (Reserved).
- J. Drip Pads (Reserved)
- K. Miscellaneous Units

1. Miscellaneous units and their approved waste types are shown in Table V.K -

[V.K.]

Miscellaneous Units. The permittee is authorized to operate the miscellaneous units for processing subject to the limitations contained herein.

2. The units processing hazardous waste shall be managed in accordance with 40 CFR 264.601, Environmental performance standards; 40 CFR 264.602, Monitoring, analysis, inspection, response, reporting, and corrective action; as applicable 40 CFR 264.603, Post-closure care; and 40 CFR 265.382, Open burning, waste explosives.
3. The permittee shall construct and maintain the containment systems for the miscellaneous units in accordance with the drawings and details included in the Part B Application in Section V.K. At a minimum, the containment system must meet the requirements of 40 CFR 264.601.
4. No hazardous wastes, except those with the potential to detonate as described in 40 CFR §265.382, may be processed in the OB/OD units. Materials to be thermally treated consist of high explosives which include insensitive high explosives, plastic bounded explosives, explosive components, pyrotechnic materials, and devices and other materials contaminated with high explosives. Materials that may also be treated are explosives contaminated by or encased in materials such as foams, plastic, and metals.
5. The following wastes may not be processed in the OB/OD units.
  - a. The dioxin-containing wastes specified in 40 CFR 261.31 as EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, F027, and F028;
  - b. Polychlorinated biphenyls (PCBs) in concentration subject to the EPA regulation under its Subpart D regulations issued pursuant to the Toxic Substance Control Act (TSCA).
6. As soon as possible after a batch is processed, and when the unit may be safely approached, the Permittee shall collect all waste fragments which have been ejected during the OB/OD event. Said waste fragments shall be deposited in an authorized waste management unit.
7. The permittee shall operate the units in compliance with all requirements relating to air quality in the Resource Conservation and Recovery Act (RCRA) and the rules promulgated thereunder and in 30 TAC 335, Subchapter F (relating to Permitting Standards for Owners and Operators of Hazardous Waste Storage, Processing, and Disposal Facilities), promulgated by the TCEQ pursuant to the Solid Waste Disposal Act, Chapter 361 of the Texas Health and Safety Code, (Vernon 1990).

L. Containment Buildings (Reserved)

## VI. Monitoring

A. Soil/Sediment Monitoring Program

[VI.A.]

The permittee shall design and maintain a soil and sediment monitoring program to monitor area soil and sediment throughout the active life of the facility and any applicable post-closure care period. Soil and sediment monitoring at the facility shall at a minimum consist of sample collection, sample analysis, sample results evaluation, and reporting of sample results for soil and sediment in the area of the Burning Ground. The Soil and Sediment Monitoring Program shall yield soil and sediment samples from an interval of zero to two inches below the surface that represent the quality of soil and sediment in the area surrounding the RCRA Burning Ground Area.

1. Identification of Soil and Sediment Monitoring Program Area

The program is specific to the RCRA Burning Ground Area as provided in Provision VI.A.3 and as authorized by Provision V.K for which soil and sediment monitoring requirements apply pursuant to 30 TAC 335.152(a)(16).

2. Capabilities of the Soil and Sediment Monitoring Program

The program shall yield soil and sediment samples from an interval of zero to two inches below the surface that represent the quality of soil and sediment at the required sampling locations. This program shall be capable of detecting a release from the permitted units at the Burning Ground to the soil and sediment.

3. Soil and Sediment Monitoring Program

a. The permittee is required to implement a program subject to the limitations contained herein. The program shall, at a minimum, consist of three categories of locations, Upland Disturbed Soil, Landfill Covers, and Sediment, which will be used to establish soil quality for the RCRA Burning Ground Area. The permittee shall collect 25 randomly selected samples from the three locations as follows:

(1) Upland Disturbed Soil: 25 randomly selected samples per grid shown on Attachment E – Map Indicating Soil and Sediment Monitoring Locations.

(2) Landfill Covers: 25 randomly selected samples per grid shown on Attachment E – Map Indicating Soil and Sediment Monitoring Locations.

(3) Sediment: 25 randomly selected samples from the playa lake sediment areas shown on Attachment E – Map Indicating Soil and Sediment Monitoring Locations.

The permittee will be allowed to combine the 25 randomly selected samples from the same grid/playa lake location into a single composite sample to be tested provided that the samples from each grid/playa lake location are maintained as a separate set from the other grids/playa lake locations, and that the samples are distributed fairly evenly across the grid/playa lake location.

b. The permittee shall determine soil and sediment quality from an interval zero to two inches below the surface throughout the active life of the facility and any

[VI.A.3.c.]

applicable post-closure care period in accordance with the parameter list and sampling schedule specified in Provisions VI.B.2 and VI.C.2, respectively.

- c. The design and operation of the authorized components of the Monitoring Program must be in accordance with this permit.

## B. Monitoring Program: Operation

### 1. Area Monitored by the Monitoring Program

The Monitoring Program shall be designed to monitor the soil and sediment in the RCRA Burning Ground Area and in the area surrounding the RCRA Burning Ground Area. The soil, as referenced in this section, refers to the native soil in the area of the Burning Ground and landfill covers. The sediment, as referenced in this section, refers to the sediment which lines Playa 3.

### 2. Monitoring Parameters and Compliance

- a. The permittee shall monitor soil and sediment in the Burning Ground Area as identified in Provision VI.A.3 and as shown on Attachment E. The composite samples will be evaluated based on the parameters listed in Table VI.D.2.b – Soil and Sediment Monitoring Parameters. Sampling and analysis for the Monitoring Parameters of Table VI.D.2.b shall be conducted in accordance with the current version of analytical methods listed in the United States Environmental Protection Agency publication SW-846 Test Methods for Evaluating Solid Waste, Third Edition, November 1986, (U.S.EPA SW-846) and as listed in the July 8, 1987, edition of the Federal Register and later editions.
- b. Background soil and sediment quality for a monitoring parameter or constituent shall be based on a sequence of at least three sampling events, taken during three consecutive calendar quarters to assure, to the greatest extent technically feasible, that an independent sample is obtained. Each sampling event shall be conducted per grid/playa lake location in each of the three Categories of Location identified in Provision VI.A.3. Each sampling event will consist of a minimum of 30 randomly selected subsamples per grid/playa lake location. The permittee may be allowed to combine the 30 randomly selected samples from the same grid/playa lake location into a single composite soil sample to be tested, provided that the samples from each grid/playa lake location are maintained as a separate set from the other grid/playa lake locations, and that the samples are distributed fairly evenly across the grid/playa lake location. The term background that is used for this monitoring program applies only to this monitoring program and does not affect any previously established background levels with regards to Compliance Plan No. CP-50284. The permittee shall determine the concentrations of the monitoring parameters listed in Table VI.D.2.b for each composite sample.
- c. Compliance with the Monitoring Parameters listed in Table VI.D.2.b is defined by the results of the data evaluation of Provision VI.C.4, wherein the monitoring data for each grid/playa lake location does not exhibit evidence of contamination

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[VI.B.2.c.]

over background values.

If any composite sample location from a grid/playa lake location is determined to be noncompliant with Table VI.D.2.b at any time during the Monitoring Program, the permittee shall respond and report according to Provision VI.D.1.

3. Post-Closure Care Period (Reserved)
4. Waste Management of Recovered Environmental Media

Recovered environmental media from a monitoring location shall be managed in accordance with applicable requirements of 30 TAC 335.

C. Sampling and Analysis

1. Sampling and Analysis

The permittee shall follow the methods set out in TCEQ's Surface Water Quality Monitoring Procedures Manual (August 2012, RG-415), EPA's Preparation of Soil Sampling Protocols: Sampling Techniques and Strategies (July 1992) or an alternate method approved in writing by the Executive Director to collect and preserve samples. The collected samples shall be managed (i.e., Chain of Custody and handling procedure), analyzed, and statistically evaluated (i.e., Quality Assurance/Quality Control [QA/QC]) in accordance with the current edition of U.S. EPA Publication SW-846, Test Methods for Evaluating Solid Waste and American Society for Testing and Materials (ASTM) Standard Test Methods or other equivalent methods accepted by the Executive Director.

- a. All environmental media analyses required by this permit shall be performed using a QA/QC program where all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. All QA/QC program details shall be put in writing and assignments made to qualified personnel. At a minimum, laboratory methods shall conform to the QA/QC program details described in the current edition of U.S. EPA Publication SW-846, Test Methods for Evaluating Solid Waste and American Society for Testing and Materials (ASTM) Standard Test Methods or other equivalent methods accepted by the Executive Director.
- b. Environmental Media analyses required by this permit shall utilize laboratory methods which are capable of measuring concentrations equal to or less than established background values. Explosives shall be analyzed by the latest version of SW-846 Method 8330A, SW-864 Method 8321B, or other equivalent methods accepted by the Executive Director. Metals shall be analyzed by the latest version of SW-846 Method 6010/6020 (mercury may be analyzed by the latest version of SW-846 Method 7471B or 7470A whichever is appropriate) or other equivalent methods accepted by the Executive Director.

2. Sampling and Analysis Frequencies and Parameters

[VI.C.2.a.]

- a. Frequencies of sampling shall be monthly, quarterly, semiannually or yearly, depending on the sampling objective. These periods of time are defined below:
  - (1) "Month" shall be a calendar month;
  - (2) "Quarter" shall be based on divisions of the calendar year (i.e., January through March, April through June, July through September, and October through December);
  - (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", "Year" or "Calendar year" shall be based on divisions of the calendar (i.e. January through December). [Note: Background soil and sediment values have previously been established (Calendar Year 2006)]
- b. The grid/playa lake sampling locations shall be sampled and the composite samples analyzed according to the schedule listed in Table VI.D.2.b.

3. Statistical Procedures for Data Evaluation

- a. For each composite sample from the grid/playa lake locations sampled during each sampling event, the permittee shall determine whether there is evidence of a Statistically Significant Increase (SSI) in the concentrations of each Monitoring Parameter of Table VI.D.2.b., when compared to the background quality data. In determining whether or not an SSI has occurred for a Monitoring Parameter of Table VI.D.2.b., the permittee shall establish if the background values have been exceeded by utilizing the statistical procedures and data evaluation described in Attachment F - Burning Ground Monitoring Statistical Procedure for Data Evaluation.

4. Data Evaluation

- a. Data evaluations shall be completed within a time frame necessary to include all data required by Provision VI.F of this Section unless QA/QC procedures show that data is unacceptable and re-analysis or re-sampling must be performed. In such cases, the executive director will be notified as soon as it becomes apparent that the time limit to conduct data evaluation cannot be met.
- b. Data evaluation shall determine whether there is evidence of an SSI for Monitoring Parameters listed in Table VI.D.2.b each time environmental media quality is determined at on-site sampling locations.

D. Response Requirements for SSI

1. If the permittee has determined an SSI over background values for any of the Monitoring Parameters identified in Table VI.D.2.b., in accordance with statistical procedures authorized by Provision VI.C.3 and specified by the permittee, the permittee shall perform the following actions:



[VI.D.1.]

- a. Notify the Executive Director in writing, within seven (7) days. The notification must indicate which soil and sediment monitoring parameter of Table VI.D.2.b-Soil and Sediment Monitoring Parameters has exhibited an SSI.
  - b. The permittee may resample for the monitoring parameter that exhibited a concentration above background in the initial sample analysis. If the result of the resampling does not confirm a concentration above background, then the first sample result will not be considered an SSI. Re-sampling should be conducted within 30 days of the validation and verification of the initial sampling. Data evaluation, which includes validation, verification and compliance with objectives of the program, shall be performed within ninety (90) days of sample collection.
  - c. Upon determination of an SSI for a monitored parameter, the permittee shall evaluate the cause for the SSI and report the results to the Executive Director in the next report required by this Section. The permittee may demonstrate a source other than the RCRA-permitted unit caused the increase or that the increase resulted from error in sampling, analysis, or evaluation. If the SSI is determined not to be the result of operation of the active RCRA-permitted units, no additional sampling pursuant to this section is required. The report shall include the information required by Provision VI.F. The cause analysis will determine any changes in operation that are necessary or if a permit amendment or modification are necessary.
  - d. If the permittee or the Executive Director determines that active engagement of the units caused one or more SSIs requiring action under Provision VI.D.2, submit to the Executive Director, a plan to make changes in operation or an application for a permit or compliance plan amendment or modification to make any appropriate changes at the facility. The applications shall be submitted in accordance with Provision II.A.1.
  - e. Continue to monitor in accordance with the Monitoring Program at the facility.
2. If the confirmed results indicate that the SSI is above levels identified in Provision VI.F.2, the results shall form the basis for any corrective action in accordance with Section XI.

E. Revised Monitoring Program

If the permittee or the Executive Director determines that the Monitoring Program no longer satisfies the requirements of 30 TAC 335.152(a)(16), the permittee must, within ninety (90) days of either the permittee's determination or Executive Director's notification, submit a permit amendment or modification request to make any appropriate changes to the Monitoring Program which will satisfy the regulations.

[VI.F.]

F. Monitoring Reporting Requirements

The Annual Monitoring Report shall be due to the TCEQ on April 15<sup>th</sup> of the following year (i.e. a report for the monitoring conducted in the year 2013 is due on April 15, 2014, etc.)

If the permittee will not be able to have the report ready by the deadline due to additional data or information needed because of a possible SSI, the permittee shall notify the Executive Director in writing as soon as possible but before the deadline and give the reason for the delay and when the report will be ready. If the Executive Director determines an extension is needed, the Executive Director may grant an extension for the report.

The monitoring reports shall include the following information determined since the previously submitted report:

1. A statement whether an SSI has occurred over background values at any location during the previous reporting period and the status of any SSI events.
2. SSI parameter concentrations will be compared to risk based standards established by the Pantex Corrective Action Program pursuant to Section XI for soil and sediment. This comparison will provide a determination whether corrective measures at the Burning Ground, in addition to those ongoing or planned under the Pantex Corrective Action Program, are necessary.
3. The permittee shall include the results of all monitoring, testing, and analytical work obtained or prepared pursuant to the requirements of this section. The summary shall include a sample monitoring analyses (i.e. numeric results of sample analyses), and as applicable, statistical calculations, graphs and drawings.
4. A map which at a minimum will include all sampling locations, a scale, and the permitted Burning Ground units.
5. Recommendation for any changes.
6. Any other items requested by the Executive Director.

G. Recordkeeping Requirements

1. The permittee shall enter all monitoring, testing, analytical, statistical test computation data in evaluating monitoring data, and inspection data obtained or prepared pursuant to the requirements of this permit, including graphs and drawings, in the operating record at the facility.
2. The operating record at the facility shall be made available for review by the staff of the Commission upon request.

## 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. of this permit.

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.
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

- a. 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.
  - b. 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

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[VII.A.5.]

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. and as applicable 30 TAC Section 350.32 (Texas Risk Reduction Program (TRRP) Remedy Standard A) and 30 TAC Section 350.33 (TRRP, Remedy Standard B) and 30 TAC Section 350.95 (Response Action Completion Report (RACR)), or 30 TAC 335, Subchapter S. After May 1, 2005, 30 TAC 335, Subchapter S may not be used except for the remaining closure activities associated with Permit Unit No. 1, 11-7N Pad. Documentation supporting the licensed Professional Engineer's certification shall be furnished to the Executive Director upon request.
7. 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 Parts 264 and 265 are no longer conducted at the facility unless subject to the provisions in 40 CFR 262.34.
8. 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.
9. 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.
10. All hard-surfaced areas within the hazardous waste management unit areas shall be decontaminated and the wash water and/or waste generated treated and/or disposed of at an authorized off-site facility.
11. Verification of decontamination shall be performed by analyzing wash water, swipe samples, and as necessary, soil samples for the hazardous constituents which have

[VII.A.11.]

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.

12. Unless it can be demonstrated that soil contamination has not occurred or unless soils are already part of a SWMU listed in Section XI., 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.
13. Applicable confirmation 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.
14. Decontamination shall be deemed complete when no visible evidence of contamination is observed and when the results from verification sampling and analyses indicate applicable confirmation samples concentrations are below the applicable critical 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 or 30 TAC 335, Subchapter S as applicable.

B. Financial Assurance for Closure (Reserved)

C. Storage Unit Closure Requirements

The permittee shall close the storage unit(s) identified as TCEQ Permit Unit Nos. 03, 12, 53, 55, and 56 in accordance with the approved Closure Plans, 40 CFR Part 264, Subpart G, 40 CFR 264.178 (container storage) and the Texas Risk Reduction Program of 30 TAC Chapter 350.

D. Miscellaneous Unit Closure Requirements

The permittee shall close the miscellaneous units identified as TCEQ Permit Unit Nos. 21, 24-32, 43, and 57 in accordance with the approved Closure Plans, 40 CFR Part 264, Subpart G, 40 CFR 264.601 and 264.603 (miscellaneous units), the Texas Risk Reduction Program of 30 TAC Chapter 350, and the following requirement.

Upon Closure of the OB/OD units, any and all contamination in the soil and groundwater will be managed according to the requirements in Section XI.

E. Surface Impoundment Closure Requirements (Reserved)

F. Landfill Closure and Certification Requirements (Reserved)

G. Containment Buildings Closure Requirements (Reserved)

**VIII. Liability Requirements**

- A. Sudden and Nonsudden Accidental Occurrences (Reserved)
- B. Incapacity of Owners or Operators, Guarantors, or Financial Institutions (Reserved)

**IX. Corrective Action for Solid Waste Management Units**

- A. Notification of Release from Solid Waste Management Unit (Reserved)
- B. Corrective Action Obligations (Reserved)
- C. Units Requiring Investigation (Reserved)
- D. Variance from Investigation (Reserved)
- E. RCRA Facility Investigation (RFI)/Affected Property Assessment (APA) (Reserved)
- F. Remedy Selection (Reserved)
- G. Compliance Plan

The permittee shall follow Permit Section XI, Compliance Plan, developed in accordance with 30 TAC Sections 335.156 - 335.167. Any and all revisions to the Compliance Plan shall become provisions and conditions of this permit upon the date of approval by the Commission.

**X. Air Emission Standards**

- 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 Safety 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.
  - 2. 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 Provision 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 Provision X.B. and X.C., the permittee must immediately comply with these requirements.

[X.]

B. Process Vents

The permittee must comply with the requirements of 30 TAC Section 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 Section 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 groundwater typically encountered approximately 200-300 feet below grade and is a discontinuous saturated interval ranging from 1 foot to 80 feet referred to as the perched aquifer. The ground water flow direction is generally to the southeast; however the flow direction is to the southwest on the western side of the plant's operational area. The perched aquifer accumulates on top of a fine grained zone which is up to 140 feet thick. The Ogallala aquifer is typically encountered approximately 340 to 500 feet below grade. Groundwater flow is generally toward the north/northeast.

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 (Reserved) 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.

[XI.A.]

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, Chapter 335, Subchapter S, and/or Chapter 350 for releases from the SWMUs.
  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, Chapter 335, Subchapter S, and/or 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 confirmation of such a discovery. Within ninety (90) days of discovering a SWMU or AOC, the permittee shall complete the following: Submit a 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 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 TCEQ unless otherwise specified. This Compliance Plan was developed based on the Compliance Plan Application dated October 21, 2003 and as revised dated September 16, 2010, which contained a Sampling and Analysis Plan, and the permit renewal application dated April 10, 2013.
- 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 (Reserved) for units listed in CP Table I, Item B are specified below in Provision XI.B.11.

Corrective Action Systems:

1. Groundwater monitoring system may at a minimum consist of the following categories of wells listed in CP Table V, to monitor groundwater quality. An



[XI.B.1.]

- 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).
  - 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

[XI.B.3.]

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 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) and (8) / 40 CFR Part 264 Subparts I and J.

The collection and conveyance system shall consist of the following components.

- a. A groundwater CAS.
  - 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.
  6. Groundwater containment system to inhibit contaminated groundwater above CP Table III GWPS from migrating beyond the influence of the CAS.
  7. ReInjection of fresh or recovered groundwater, after treatment, into the contaminated aquifer in accordance with 30 TAC Sections 331.9 and 331.10.
  8. The following handling methods are authorized for recovered groundwater having concentrations of hazardous constituents exceeding the GWPS:
    - a. 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, ion exchange, chemical precipitation, advanced oxidation, biological treatment, and carbon adsorption. The air stripper shall be maintained in compliance with applicable air quality regulations.
    - c. Disposal at permitted deep injection well facility.

[XI.B.8.]

- 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.
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 Provision XI.C.1. and the specifications of this Compliance Plan.
  - a. If groundwater recovery wells are utilized in the Corrective Action System, the flow rate at each recovery well shall be set and recorded. These flow rate data shall be used to calculate a monthly and 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 monthly 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.
  - c. The permittee shall notify the Executive Director of any scheduled or non-scheduled 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 fifteen (15) 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 made available upon request. The operation efficiency of the Corrective Action Systems shall be reported in accordance with CP Table VII.

Compliance Monitoring Systems: (Reserved)

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.
  - a. Background well(s) that is unaffected by the operation of the facility.

[XI.B.11.]

- b. POC wells to demonstrate compliance with the GWPS.
- c. 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 Provision XI.A.7., concerning the design, construction, and operation of the authorized components of the Corrective Action and Groundwater Monitoring Programs (Reserved) and/or groundwater Compliance Monitoring Program, are approved subject to the terms established by this Compliance Plan. All plans must comply with this Compliance 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 sixty (60) 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 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 (Reserved) and the Groundwater Protection Standard

[XI.D.]

Corrective Action and Compliance Monitoring Objectives (Reserved) for Units Specified in CP Table I

1. The GWPS defines the concentration limits of hazardous constituents, with respect to groundwater quality restoration in the Uppermost Aquifer and any lower interconnected aquifers, 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 (Reserved) 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.)
3. For Corrective Action, the hazardous constituents detected in groundwater and determined to be risk drivers are specified in CP Table IIIA. For Compliance Monitoring (Reserved), 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 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.
4. The GWPS are specified in CP Tables III and 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 and IIIA may change based on the review of the risk-based cleanup values during the EPA's 5-Year Review, as specified in Table VII. 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 Chapter 305 Subchapter D.
5. Compliance Period for each unit is specified in CP Table VI (Reserved).
6. The GWPS Achieved for the Corrective Action Program.
  - a. 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

- [XI.D.6.a.] 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.
  - c. 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 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.
  - e. 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.
  - f. 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 (Reserved)

- 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

[XI.D.7.]

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:

- a. 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
- 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 Provision XI.E.1. 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 Permit 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;

[XI.E.1.]

- 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
- e. The permittee is required to actively remove NAPLs from the Uppermost Aquifer and any interconnected aquifers wherever found, to the extent technically practicable.

F. Groundwater Monitoring Program Requirements

The permittee shall install, operate and maintain the Groundwater Monitoring System to evaluate wells near sources of contamination to ensure no new contamination is found over time, 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 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 submitted 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). The site-specific background values of the naturally-occurring hazardous constituents specified in CP Tables III and IIIA are based on the approved background values established in the report entitled Risk Reduction Rule Guidance to the Pantex RFI, dated April 2002. If further background values have been established, the permittee shall submit a plan and report documenting development of backgrounds for review and approval by the Executive Director. Those backgrounds shall then be incorporated into the Permit after submittal of a modification or amendment, in accordance with Provision XI.J.4.

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



[XI.F.2.a.]

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 GWPS values in Table CP 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);
    - (3) "Semiannual" shall be based on divisions of the calendar year (i.e., January through June and 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 during the first complete quarter after issuance of this Compliance Plan. Thereafter, samples shall be collected on the frequency specified in the SAP referenced in Provision XI.F.2. Data evaluations shall be completed within ninety (90) days after the end of sampling period 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 ninety (90) 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.

[XI.F.3.c.(1)]

- (a) Each Background, POC, POE, and APOE well listed in CP Table V; and each AMP if applicable, CAO, and CAS well depicted in Attachment A shall be sampled and analyzed in accordance with the approved Sampling and Analysis Plan referenced in Provision XI.F.2 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 semiannually 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 Provision XI.D.6.a., then the permittee may apply to modify or amend the Compliance Plan according to Provisions XI.D.6.b., XI.D.6.d., XI.D.6.e., or XI.D.6.f.
  - (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.
- (2) Compliance Monitoring (Reserved) for units specified in CP Table I, Item B.
- (a) If data evaluation is performed in accordance with Provision XI.F.4.a., one sample from each well of CP Table V shall be taken and analyzed semiannually for the constituents of CP Table IVA. If data evaluation is performed in accordance with Provision XI.F.4.b., a sequence of at least four independent samples from each well of CP Table V shall be taken and analyzed semiannually 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 during the first quarter of each year. 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 0.1 ft and shall be performed during each sampling event effective

[XI.F.3.d.1.]

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 micropurging techniques are utilized during sample collection.
- (3) Field observations including descriptions of appearance (clarity, color, etc.) shall be recorded semiannually 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; 2) the groundwater production rate of the dedicated pump decreases by 25% from the initial production rate when the pump was installed; or 3) at least every five (5) years for monitoring and recovery wells. 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 unless the repairs are complex. In such cases, the Executive Director will be notified as soon as it becomes apparent that the 90-day time limit will not be met. Complex repairs shall be conducted based upon a schedule approved by the Executive Director.

#### 4. Data Evaluation Procedures

Data evaluation in accordance with this provision shall be performed for all Corrective Action and Compliance Monitoring (Reserved) wells within ninety (90) days after the end of sampling period unless QA/QC procedures show that data are unacceptable and reanalysis or resampling must be performed. When evaluating the monitoring results of each well, pursuant to Permit 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,

[XI.F.4.a.]

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 (Reserved): 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 (Reserved), 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
  - (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 Provisions XI.F.4.a. or XI.F.4.b., 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.

[XI.]

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 Sections 335.166 or 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, in accordance with an approved schedule specified in the approved Pantex Plant Ogallala and Perched Groundwater Contingency Plan dated April 2009 (Contingency Plan), or most recent approved version, 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 Provision XI.D.4., 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.
2. Compliance Monitoring for units specified in CP Table I, Item B (Reserved)
  - 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

[XI.G.2.a.]

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
  - (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

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[XI.G.2.b(2)]

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 (Reserved) 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 AOCs 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 AOCs, the permittee may continue to complete the corrective action requirements under 30 TAC Chapter 335, Subchapters A and S, 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:

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- 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 Provision XI.A.5., and for any new SWMUs and/or AOC discovered after the issuance of this Compliance Plan in accordance with Provision XI.A.6.

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 Provision XI.H.2. in lieu of performing the investigation required in Provisions XI.H.1. and XI.H.4., 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 Provision XI.H.4. 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 Provisions XI.H.1. and XI.H.4. shall be performed for the SWMU and/or AOC.

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

Within one hundred twenty (120) days from the date of approval of the RFA Report of Provision XI.A.5., 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 Provision XI.H.1. 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 documented to the satisfaction of the Executive Director. The permittee shall propose or conduct ICMs, as necessary, to protect human health and the environment.



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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 Provision XI.H.4. 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 Provision XI.H.7.). 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 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

[XI.H.6.]

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

a. 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.

[XI.H.]

8. Interim Corrective Measures (ICM)

- a. 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.
- b. 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.
- c. 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 Provision XI.H.6., 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.

I. Financial Assurance (Reserved)

J. 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.

[XI.J.]

2. Notification Requirements

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:

- a. 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 1 Office in Amarillo, 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.

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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.

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 or at the earliest possible time thereafter contingent on the circumstances. 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**

<b>Facility Unit(s) and Basic Elements</b>	<b>Possible Error, Malfunction, or Deterioration</b>	<b>Frequency of Inspection</b>
Permit Unit No. 3 Building 4-50	Attached Permitted Storage Facility inspection checklist, or equivalent forms, will be used to meet inspection requirements.	Weekly
Permit Unit No. 53 Building 4-72	Attached Permitted Storage Facility inspection checklist, or equivalent forms, will be used to meet inspection requirements.	Weekly
Permit Unit No. 12 Building 16-16	Attached Permitted Storage Facility inspection checklist, or equivalent forms, will be used to meet inspection requirements.	Weekly
Permit Unit No. 55 Building T9-121	Attached Permitted Storage Facility inspection checklist, or equivalent forms, will be used to meet inspection requirements.	Weekly
Permit Unit No. 56 Building T9-122	Attached Permitted Storage Facility inspection checklist, or equivalent forms, will be used to meet inspection requirements.	Weekly
Permit Unit No. 57 Building 16-18	Attached Permitted Treatment and Processing Facility inspection checklist, or equivalent forms, will be used to meet inspection requirements.	Weekly
Permitted Units No. 21,24-32, & 43 Burning Ground	Attached Burning Ground Area inspection checklist, or equivalent forms, will be used to meet inspection requirements.	Weekly
General Plan Equipment	Attached Emergency Equipment inspection checklist, or equivalent forms, will be used to meet inspection requirements.	Monthly

**Table III.E.2. - Emergency Coordinators**

Name	Office Phone Number
Primary	
On-Duty Pantex Plant Shift Superintendent <sup>1</sup>	(806) 477-5000
Alternate	
Alternate On-Duty Pantex Plant Shift Superintendent <sup>2</sup>	(806) 477-5000

Notes:

<sup>1</sup>This position is manned 24 hours per day, seven-days per week. The individual in this position has the authority and responsibility to receive notifications of all hazardous material releases, including releases of hazardous waste. For releases of hazardous materials that are categorized as an emergency, this individual commands the subsequent emergency response operations to address the release.

<sup>2</sup>This position is manned 24 hours per day, seven-days per week. The individual in this position has the training and authority to become the On-Duty Plant Shift Superintendent in the event that the designed individual is not able to perform that duty. In the event that the On-Duty Plant Shift Superintendent or the alternate becomes incapacitated for any reason, another qualified individual will be called-out to provide a backup to the position.



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**Table III.E.3. - Emergency Equipment**

Equipment	Location	Physical Description	Capabilities
Absorbent Pillows	Permitted Unit No. 03 Building 4-50	Multi-use – minimum of 10	Contaminant control
Absorbent Pads	Permitted Unit No. 03 Building 4-50	Multi-use – minimum of 10	Contaminant control
Absorbent towels (paper), box or roll	Permitted Unit No. 03 Building 4-50	Generic – minimum of 1	Contaminant control/decontamination
Safety Glasses	Permitted Unit No. 03 Building 4-50	Plastic – minimum of 4	Personal protection
Disposable Bags	Permitted Unit No. 03 Building 4-50	Plastic – minimum of 10	Contaminant control
Tape	Permitted Unit No. 03 Building 4-50	Roll (e.g. duct tape, plastic tape, etc.) minimum of 1	Contaminant control
Broom	Permitted Unit No. 03 Building 4-50	Minimum of 1	Contaminant control/decontamination
Shovel	Permitted Unit No. 03 Building 4-50	Minimum of 1	Contaminant control
Protective suit coveralls	Permitted Unit No. 03 Building 4-50	Tyvek or equivalent – minimum of 4	Personal protection
Protective booties	Permitted Unit No. 03 Building 4-50	Tyvek or equivalent – minimum of 8 (pair)	Personal protection
Protective gloves	Permitted Unit No. 03 Building 4-50	Various composition (rubber or cloth or nitrile, etc. – minimum of 8 (pair)	Personal protection
Decontamination sprayer (e.g. sprayer, spray bottle, etc.)	Permitted Unit No. 03 Building 4-50	Plastic or steel – minimum of 1	Contaminant control/decontamination

**Table III.E.3. - Emergency Equipment (Continued)**

Equipment	Location	Physical Description	Capabilities
Telephone	Permitted Unit No. 03 Building 4-50	1	Communication
Fire Extinguisher	Permitted Unit No. 03 Building 4-50	1	Extinguish localized fire
Absorbent Pillows	Permitted Unit No. 53 Building 4-72	Multi-use – minimum of 10	Contaminant control
Absorbent Pads	Permitted Unit No. 53 Building 4-72	Multi-use – minimum of 10	Contaminant control
Absorbent towels (paper), box or roll	Permitted Unit No. 53 Building 4-72	Generic – minimum of 1	Contaminant control/decontamination
Safety Glasses	Permitted Unit No. 53 Building 4-72	Plastic – minimum of 4	Personal protection
Disposable Bags	Permitted Unit No. 53 Building 4-72	Plastic – minimum of 10	Contaminant control
Tape (roll) (e.g. duct tape, etc.)	Permitted Unit No. 53 Building 4-72	Roll (e.g. duct tape, plastic tape, etc.) minimum of 1	Contaminant control
Broom	Permitted Unit No. 53 Building 4-72	Minimum of 1	Contaminant control/decontamination
Shovel	Permitted Unit No. 53 Building 4-72	Minimum of 1	Contaminant control
Protective suit coveralls	Permitted Unit No. 53 Building 4-72	Tyvek or equivalent – minimum of 4	Personal protection
Protective booties	Permitted Unit No. 53 Building 4-72	Tyvek or equivalent minimum of 8 (pair)	Personal protection
Protective gloves	Permitted Unit No. 53 Building 4-72	Various composition (rubber or cloth or nitrile, etc. – minimum of 8 (pair)	Personal protection

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**Table III.E.3. - Emergency Equipment (Continued)**

Equipment	Location	Physical Description	Capabilities
Decontamination sprayer (e.g. sprayer, spray bottle, etc.)	Permitted Unit No. 53 Building 4-72	Plastic or steel – minimum of 1	Contaminant control/decontamination
Telephone	Permitted Unit No. 53 Building 4-72	1	Communication
Fire Extinguisher	Permitted Unit No. 53 Building 4-72	1	Extinguish localized fire
Absorbent Pillows	Permitted Unit No. 12 Building 16-16 <sup>1</sup>	Multi-use – minimum of 10	Contaminant control
Absorbent Pads	Permitted Unit No. 12 Building 16-16 <sup>1</sup>	Multi-use – minimum of 10	Contaminant control
Absorbent towels (paper), box or roll	Permitted Unit No. 12 Building 16-16 <sup>1</sup>	Generic – minimum of 1	Contaminant control/decontamination
Safety Glasses	Permitted Unit No. 12 Building 16-16 <sup>1</sup>	Plastic – minimum of 4	Personal protection
Disposable Bags	Permitted Unit No. 12 Building 16-16 <sup>1</sup>	Plastic – minimum of 10	Contaminant control
Tape (roll) (e.g. duct tape, etc.)	Permitted Unit No. 12 Building 16-16 <sup>1</sup>	Roll (e.g. duct tape, plastic tape, etc.) – minimum of 1	Contaminant control
Broom	Permitted Unit No. 12 Building 16-16 <sup>1</sup>	Minimum of 1	Contaminant control/decontamination
Shovel	Permitted Unit No. 12 Building 16-16 <sup>1</sup>	Minimum of 1	Contaminant control
Protective suit coveralls	Permitted Unit No. 12 Building 16-16 <sup>1</sup>	Tyvek or equivalent – minimum of 4	Personal protection
Protective booties	Permitted Unit No. 12 Building 16-16 <sup>1</sup>	Tyvek or equivalent – minimum of 8 (pair)	Personal protection

**Table III.E.3. - Emergency Equipment (Continued)**

Equipment	Location	Physical Description	Capabilities
Protective gloves	Permitted Unit No. 12 Building 16-16 <sup>1</sup>	Various composition (rubber or cloth or nitrile, etc. – minimum of 8 (pair)	Personal protection
Decontamination sprayer (e.g. sprayer, spray bottle, etc.)	Permitted Unit No. 12 Building 16-16 <sup>1</sup>	Plastic or steel – minimum of 1	Contaminant control/decontamination
Telephone	Permitted Unit No. 12 Building 16-16 <sup>1</sup>	1	Communication
Fire Extinguisher	Permitted Unit No. 12 Building 16-16 <sup>1</sup>	1	Extinguish localized fire
Dry Pipe Sprinkler System	Permitted Unit No. 12 Building 16-16 <sup>1</sup>	1	Extinguish localized fire
Absorbent Pillows	Permitted Unit No. 57 Building 16-18	Multi-use – minimum of 10	Contaminant control
Absorbent Pads	Permitted Unit No. 57 Building 16-18	Multi-use – minimum of 10	Contaminant control
Absorbent towels (paper), box or roll	Permitted Unit No. 57 Building 16-18	Generic – minimum of 1	Contaminant control/decontamination
Safety Glasses	Permitted Unit No. 57 Building 16-18	Plastic – minimum of 4	Personal protection
Disposable Bags	Permitted Unit No. 57 Building 16-18	Plastic – minimum of 10	Contaminant control
Tape (roll) (e.g. duct tape, etc.)	Permitted Unit No. 57 Building 16-18	Roll (e.g. duct tape, plastic tape, etc.) – minimum of 1	Contaminant control
Broom	Permitted Unit No. 57 Building 16-18	Minimum of 1	Contaminant control/decontamination

**Table III.E.3. - Emergency Equipment (Continued)**

Equipment	Location	Physical Description	Capabilities
Shovel	Permitted Unit No. 57 Building 16-18	Minimum of 1	Contaminant control
Protective suit coveralls	Permitted Unit No. 57 Building 16-18	Tyvek or equivalent minimum of 4	Personal protection
Protective booties	Permitted Unit No. 57 Building 16-18	Tyvek or equivalent minimum of 8 (pair)	Personal protection
Protective gloves	Permitted Unit No. 57 Building 16-18	Various composition (rubber or cloth or nitrile, etc. – minimum of 8 (pair)	Personal protection
Decontamination sprayer (e.g. sprayer, spray bottle, etc.)	Permitted Unit No. 57 Building 16-18	Plastic or steel minimum of 1	Contaminant control/decontamination
Telephone	Permitted Unit No. 57 Building 16-18	1	Communication
Fire Extinguisher	Permitted Unit No. 57 Building 16-18	1	Extinguish localized fire
Wet Pipe Sprinkler System	Permitted Unit No. 57 Building 16-18	1	Extinguish localized fire
Shovel	Permitted Unit No. 21, 24, 25, 26, 27, 28, 29, 30, 31, 32 and 43 (Burning Ground Units)	1	Contaminant control
Plastic Sheeting	Permitted Unit No. 21, 24, 25, 26, 27, 28, 29, 30, 31, 32 and 43 (Burning Ground Units)	Visquene or similar minimum of 1 roll	Contaminant control

**Table III.E.3. - Emergency Equipment (Continued)**

Equipment	Location	Physical Description	Capabilities
Protective Gloves	Permitted Unit No. 21, 24, 25, 26, 27, 28, 29, 30, 31, 32 and 43 (Burning Ground Units)	Various composition (rubber or cloth or nitrile, etc. – minimum of 8 (pair)	Personal protection
Protective Booties	Permitted Unit No. 21, 24, 25, 26, 27, 28, 29, 30, 31, 32 and 43 (Burning Ground Units)	Tyvek or equivalent minimum of 8 (pair)	Personal protection
Telephone	Permitted Unit No. 21, 24, 25, 26, 27, 28, 29, 30, 31, 32 and 43 (Burning Ground Units)	1	Communication
Fire extinguisher	Permitted Unit No. 21, 24, 25, 26, 27, 28, 29, 30, 31, 32 and 43 (Burning Ground Units)	1	Extinguish localized fire
Decontamination Pool	General Plant Equipment, Buildings 12-130 or 16-8	Minimum of 1	Operational Support
Drum Lifter	General Plant Equipment, Buildings 12-130 or 16-8	Minimum of 1	Operational Support
Drum Transfer Pump	General Plant Equipment, Buildings 12-130 or 16-8	Minimum of 1	Operational Support
Drum Repair Kit	General Plant Equipment, Buildings 12-130 or 16-8	Minimum of 1	Spill Containment/Remediation
Floodlight	General Plant Equipment, Buildings 12-130 or 16-8	Minimum of 1	Operational Support
Generator	General Plant Equipment, Buildings 12-130 or 16-8	Power generator minimum of 1	Operational Support

**Table III.E.3. - Emergency Equipment (Continued)**

Equipment	Location	Physical Description	Capabilities
Mercury Spill Kit	General Plant Equipment, Buildings 12-130 or 16-8	Minimum of 1	Spill containment/remediation
Over-pack Containers	General Plant Equipment, Buildings 12-130 or 16-8	95 gallon or 110 gallon, polyethylene or equivalent, Minimum of 1	Spill containment/remediation
Tarp, Decontamination	General Plant Equipment, Buildings 12-130 or 16-8	Minimum of 1	Operational support
Various Containers	General Plant Equipment, Buildings 12-130 or 16-8 or 16- 33	Various sizes and numbers of metal or plastic type	Spill containment/remediation
Air Hose	General Plant Equipment, Buildings 12-130 or 16-8	Minimum of 1	Spill containment/remediation
Discharge Hose	General Plant Equipment, Buildings 12-130 or 16-8	Minimum of 1	Spill containment/remediation
Pump	General Plant Equipment, Buildings 12-130 or 16-8	Pneumatic drum vacuum with connectors, hoses and tools, Minimum of 1	Spill containment/remediation
Suction Hose	General Plant Equipment, Buildings 12-130 or 16-8	Minimum of 1	Spill containment/remediation
Trash Pump	General Plant Equipment, Buildings 12-130 or 16-8	Minimum of 1	Spill containment/remediation
Gas and Vapor Detector	General Plant Equipment, Building 12-118 or 12-130	Minimum of 1	Detects O <sub>2</sub> , H <sub>2</sub> S, CO and lower explosive limit

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**Table III.E.3. - Emergency Equipment (Continued)**

Equipment	Location	Physical Description	Capabilities
Mercury Detector	General Plant Equipment, Building 12-118 or 12-130	Minimum of 1	Detects mercury vapors
Photo-ionization Detector	General Plant Equipment, Building 12-118 or 12-130	Minimum of 1	Detects organic vapors

1. Because of close proximity of the permitted units, the emergency equipment designated for permitted unit 12, Building 16-16, also serves as the emergency equipment for permitted units 55 and 56, Buildings 9-121 and 9-122. The dry pipe sprinkler system is specific to Building 16-16 and not Buildings 9-121 or 9-122.



**Table IV.B. - Wastes Managed In Permitted Units**

No.	Waste	EPA Hazardous Waste Numbers	TCEQ Waste Form Codes and Classification Codes
1	Inorganic Solids - Waste consists of miscellaneous discards containing or contaminated with RCRA constituents (e.g., metals, fluorescent tubes, flash lamps, unclassified weapon components, sanitized weapon components and glass).	D003 thru D011 F001 thru F006, P001 thru P205, U001 thru U411	319 H
2	Reactive Organic Solids - Waste consists of explosives and material contaminated with explosives	D001, D003, D005 thru D011 D018, D026, D030, D035, D040, F001, F002, F003, F004, F005, K044, K045	405 H
3	Not Used		
4	Reactive Organics - Waste consists of organic reactive sludge and other wet explosives generated from explosives manufacturing operations.	D003, K044, K045	605 H
5	Not Used		
6	Explosive Contaminated Waste - Waste consists of explosives and explosive contaminated, primarily inorganic, materials (e.g., drums, equipment, shipping boxes, metals, soil).	D003 thru D011	319 H
7	Dry Ash, Slag or Thermal Residue - Waste consists of residue from the flashing and burning of high explosives and high explosive contaminated materials.	D004 thru D043, F001 thru F005	304 H
8	Not Used		
9	Acidic Aqueous Solutions - Waste consists of acidic solutions contaminated with RCRA constituents.	D001, D002, D004 thru D043, F001 thru F005	105 H

**Table IV.B. - Wastes Managed In Permitted Units (Continued)**

No.	Waste	EPA Hazardous Waste Numbers	TCEQ Waste Form Codes and Classification Codes
10	Solvent/Water Solutions - Waste consists of concentrated solvent-water solutions.	D001, D003 thru D043, F001 thru F006	201 H
11	Not Used		
11	Not Used		
12	Not Used		
13	Lab Packs - Waste consists of off-specification products, unused products, out of date products, small containers of spill residues, and used chemicals in small containers.	D001 thru D043, F001 thru F005, K044 thru K045, P001 thru P205, U001 thru U411	001 H 002 H
14	Not Used		
15	Not Used		
16	Solvents - Waste consists of halogenated and non-halogenated solvents.	D001 thru D043, F001 thru F005, P001 thru P205, U001 thru U411	204 H
17	Not Used		
18	Not Used		

**Table IV.B. - Wastes Managed In Permitted Units (Continued)**

No.	Waste	EPA Hazardous Waste Numbers	TCEQ Waste Form Codes and Classification Codes
19	Caustic Aqueous Solutions - Waste consists of caustic solutions contaminated with RCRA constituents.	D001, D002, D004 thru D043, F001 thru F006	106 H
20	Aqueous Waste - Waste consists of wastewater, decontamination water, and other aqueous solutions generated from plant activities.	D004 thru D043, F001 thru F006, P001 thru P205, U001 thru U411	101 H 102 H
21	Soil - Waste consists of contaminated soil generated from remediation and investigation activities, spill clean-up activities, environmental monitoring, maintenance, and construction.	D004 thru D043, F001 thru F006, P001 thru P205, U001 thru U411	301 H
22	Metal Scale, Filings or Scrap - Waste consists of metal scale, filings or scrap containing or contaminated with RCRA metals.	D004 thru D011	307 H
23	Not Used		
24	Paint Thinner, Petroleum Distillates, Paint Residues	D001, D004 thru D043, F001 thru F005	211 H
25	Not Used		
26	Organic Paint, Ink, Lacquer or Varnish - Waste consists of paint residues and thinners containing or contaminated with heavy metals and volatile organics.	D001, D004 thru D043, F001 thru F005	209 H
27	Not Used		

**Table IV.B. - Wastes Managed In Permitted Units (Continued)**

No.	Waste	EPA Hazardous Waste Numbers	TCEQ Waste Form Codes and Classification Codes
28	Not Used		
29	Not Used		
30	Batteries, Battery Parts, Casings and/or Cores - Waste consists of batteries used in various plant operations.	D002, D003, D006, D008, D009, D011	309 H
31	Organic Solids - Waste consists of organic solids with some inorganic constituents (e.g., Kimwipes®, clothing, spill clean-up materials, filter paper, rags, shop towels, gaskets, film, and plastics). Solids are contaminated with RCRA metals and/or solvents.	D001, D004 thru D043, F001 thru F006, P001 thru P205, U001 thru U411	407 H
32	Not Used		
33	Liquid Mercury Waste	D009, U151	117 H
34	Not Used		
35	Not Used		
36	Not Used		
37	Not Used		
38	Organic Gases - Waste consists of compressed gas cylinders containing organic gases.	D001, D003-D043, P001 thru P205, U001 thru U411	801 H

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**Table IV.B. - Wastes Managed In Permitted Units (Continued)**

No.	Waste	EPA Hazardous Waste Numbers	TCEQ Waste Form Codes and Classification Codes
39	Waste Oil - Waste consists of oil contaminated with RCRA constituents.	D001, D004 thru D043, F001 thru F005	206 H
40	Not Used		
41	Solid Filters or Sorbents - Waste consists of filters, Sorbent materials, oil filters etc. containing or contaminated with RCRA constituents.	D001, D004 thru D043, F001 thru F005, P001 thru P205, U001 thru U411	310 H
42	Not Used		
43	Not Used		
44	Organic Liquids - Waste consists of organic liquid waste generated when product shelf-life expires or the product is no longer needed; and for consolidation of miscellaneous bulk solvents.	D001 thru D043, F001 thru F005, P001 thru P205, U001 thru U411	219 H
45	Not Used		
46	Not Used		
47	Not Used		
48	Not Used		
49	Not Used		

**Table IV.B. - Wastes Managed In Permitted Units (Continued)**

No.	Waste	EPA Hazardous Waste Numbers	TCEQ Waste Form Codes and Classification Codes
50	Inorganic Metal Salts and Chemicals - Waste consists of inorganic excess, discarded out-of-date, off-specification, used/depleted chemicals or products.	D001, D003 thru D011 P001 thru P205, U001 thru U411	316 H 319 H
51	Inorganic Sludge - Composed primarily of soil and water.	D002	519 H

<sup>1</sup> For each waste listed in Table IV.A, a parallel radioactive hazardous "Mixed" waste may exist.

**Table IV.C. - Sampling and Analytical Methods**

Waste No. <sup>1</sup>	Sampling Location	Sampling Method	Frequency	Parameter	Test Method	Desired Accuracy Level
1. 319 H	Point of Generation or Container	Manual Collection Methods, Trier or Auger	See WAP, Section 5.0	See Table IV.B, Column 3	1 and/or 13	≥90% Confidence Interval
2. 405 H	Point of Generation or Container	Manual Collection Methods or Trier	See WAP, Section 5.0	See Table IV.B, Column 3	1, 2, 3, 4, 8, and/or 13	≥90% Confidence Interval
3		Not Used				
4. 605 H	Point of Generation or Container	Manual Collection Methods or Trier	See WAP, Section 5.0	See Table IV.B, Column 3	1, 2, 3, 4, 8, and/or 13	≥90% Confidence Interval
5		Not Used				
6. 319 H	Point of Generation or Container	Manual Collection Methods	See WAP, Section 5.0	See Table IV.B, Column 3	1, 2, 3, 4, and/or 13	≥90% Confidence Interval
7. 304 H	Point of Generation or Container	Manual Collection Methods, Trier or Auger	See WAP, Section 5.0	See Table IV.B, Column 3	1, 2, 4, 6, and/or 13	≥90% Confidence Interval
8		Not Used				
9. 105 H	Point of Generation or Container	Manual Collection Methods, Coliwasa or Peristaltic Pump	See WAP, Section 5.0	See Table IV.B, Column 3	1, 2, 5 and/or 8	≥90% Confidence Interval

**Table IV.C. - Sampling and Analytical Methods (Continued)**

Waste No. <sup>1</sup>	Sampling Location	Sampling Method	Frequency	Parameter	Test Method	Desired Accuracy Level
10. 201 H	Point of Generation or Container	Manual Collection Methods, Coliwasa or Peristaltic Pump	See WAP, Section 5.0	See Table IV.B, Column 3	1, 2, 3, 4 and/or 8	≥90% Confidence Interval
11		Not Used				
12		Not Used				
13. 001 H, 002 H	Point of Generation or Container	N/A	See WAP, Section 5.0	See Table IV.B, Column 3	Process Knowledge	≥90% Confidence Interval
14		Not Used				
15		Not Used				
16. 204 H	Point of Generation or Container	N/A	See WAP, Section 5.0	See Table IV.B, Column 3	1, 2, 3, 4 and/or 8	≥90% Confidence Interval
17		Not Used				
18		Not Used				
19. 106 H	Point of Generation or Container	Manual Collection Methods, Coliwasa or Peristaltic Pump	See WAP, Section 5.0	See Table IV.B, Column 3	1, 2, 8 and/or 8	≥90% Confidence Interval



**Table IV.C. - Sampling and Analytical Methods (Continued)**

Waste No. <sup>1</sup>	Sampling Location	Sampling Method	Frequency	Parameter	Test Method	Desired Accuracy Level
20. 101 H, 102 H	Point of Generation or Container	Manual Collection Methods, Coliwasa or Peristaltic Pump	See WAP, Section 5.0	See Table IV.B, Column 3	1, 2, 5, 8 and/or 13	≥90% Confidence Interval
21. 301 H	Point of Generation or Container	Manual Collection Methods, Trier or Auger	See WAP, Section 5.0	See Table IV.B, Column 3	1, 2, 3, 4, 7, 10, 11 and/or 13	≥90% Confidence Interval
22. 307 H	Point of Generation or Container	Manual Collection Methods, Trier or Auger	See WAP, Section 5.0	See Table IV.B, Column 3	1, and/or 13	≥90% Confidence Interval
23		Not Used				
24. 211 H	Point of Generation or Container	Manual Collection Methods, Coliwasa or Peristaltic Pump	See WAP, Section 5.0	See Table IV.B, Column 3	1, 2, 3, 8 and/or 13	≥90% Confidence Interval
25		Not Used				
26. 209 H	Point of Generation or Container	Manual Collection Methods, Coliwasa or Peristaltic Pump	See WAP, Section 5.0	See Table IV.B, Column 3	1, 2, 3, 8 and/or 13	≥90% Confidence Interval
27		Not Used				

**Table IV.C. - Sampling and Analytical Methods (Continued)**

Waste No. <sup>1</sup>	Sampling Location	Sampling Method	Frequency	Parameter	Test Method	Desired Accuracy Level
28		Not Used				
29		Not Used				
30. 309 H	Point of Generation or Container	Manual Collection Methods	See WAP, Section 5.0	See Table IV.B, Column 3	1, and/or 13	≥90% Confidence Interval
31. 407 H	Point of Generation or Container	Manual Collection Methods, Trier or Auger	See WAP, Section 5.0	See Table IV.B, Column 3	1, 2, 3, 8, and/or 13	≥90% Confidence Interval
32		Not Used				
33. 117 H	Point of Generation or Container	N/A	See WAP, Section 5.0	See Table IV.B, Column 3	Process Knowledge	≥90% Confidence Interval
34		Not Used				
35		Not Used				
36		Not Used				
37		Not Used				

**Table IV.C. - Sampling and Analytical Methods (Continued)**

Waste No. <sup>1</sup>	Sampling Location	Sampling Method	Frequency	Parameter	Test Method	Desired Accuracy Level
38. 801 H	Point of Generation or Container	N/A	See WAP, Section 5.0	See Table IV.B, Column 3	Process Knowledge	≥90% Confidence Interval
39. 206 H	Point of Generation or Container	Manual Collection Methods, Coliwasa or Peristaltic Pump	See WAP, Section 5.0	See Table IV.B, Column 3	1, 2, 3, 8, and/or 10	≥90% Confidence Interval
40		Not Used				
41. 310 H	Point of Generation or Container	Manual Collection Methods or Trier	See WAP, Section 5.0	See Table IV.B, Column 3	1, 2, 3 and 13	≥90% Confidence Interval
42		Not Used				
43		Not Used				
44. 219 H	Point of Generation or Container	Manual Collection Methods, Coliwasa or Peristaltic Pump	See WAP, Section 5.0	See Table IV.B, Column 3	1, 2, 3, 4, and/or 8	≥90% Confidence Interval
45		Not Used				
46		Not Used				
47		Not Used				
48		Not Used				

**Table IV.C. - Sampling and Analytical Methods (Continued)**

Waste No. <sup>1</sup>	Sampling Location	Sampling Method	Frequency	Parameter	Test Method	Desired Accuracy Level
49		Not Used				
50. 316 H, 319 H	Point of Generation or Container	Manual Collection Methods, Trier or Auger	See WAP, Section 5.0	See Table IV.B, Column 3	1 and/or 13	≥90% Confidence Interval
51. 519 H	Point of Generation or Container	Manual Collection Methods, Coliwasa or Trier	See WAP, Section 5.0	See Table IV.B, Column 3	1, 5, and/or 13	≥90% Confidence Interval

<sup>1</sup> From Table IV.B, first and fourth columns. For each waste listed in Table IV.A, a parallel radioactive hazardous "Mixed" waste may exist.

**Table V.B. - Container Storage Areas**

Permit Unit No.	Container Storage Area	N.O.R. No.	Rated Capacity	Dimensions	Containment Volume (including rainfall for unenclosed areas)	Unit will manage Ignitable, <sup>1</sup> Reactive, <sup>1</sup> or Incompatible <sup>2</sup> Waste (state all that apply)
03	Igloo 4-50	14	25,134 gallons	40' by 27'	116.4 gallons <sup>3</sup>	Ignitable, Reactive, or Incompatible Waste
12	Building 16-16	17	1,369 cu yds. (435 cu yds. Free liquids)	133' by 113'	17,650 gallons total (3,530 gallons for each sump, 5 sumps)	Ignitable, Reactive, or Incompatible Waste
53	Igloo 4-72	71	16,500 gallons	40' by 27'	116.4 gallons <sup>3</sup>	Ignitable, Reactive, or Incompatible Waste
55	Building T9-121	153	4,400 gallons	42' by 13'	1,975 gallons	Ignitable, Reactive, or Incompatible Waste
56	Building T9-122	154	4,400 gallons	42' by 13'	1,975 gallons	Ignitable, Reactive, or Incompatible Waste

- <sup>1</sup> Containers managing ignitable or reactive waste must be located at least 15 meters (50 feet) from the facility's property line.
- <sup>2</sup> Incompatible 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.
- <sup>3</sup> Based on a 4.3 ft. by 4.3 ft. by 10 in. secondary containment pan which will hold four 55-gallon drums. This portable secondary containment pan, or equivalent type, which is capable of containing the volume of the largest container or 10% of all containers stored in each secondary containment pans, whichever is greater, will be utilized. All storage facilities are within an enclosed building.

**Table V.K. - Miscellaneous Units**

Permit Unit No.	Miscellaneous Unit	N.O.R . No.	Storage, Processing, and/or Disposal	Waste Nos. <sup>1</sup>	Rated Capacity	Dimensions	Unit will manage Ignitable, Reactive, or Incompatible Waste (state all that apply)
57	Building 16-18 HWTPF	017	Processing	1, 9, 19, 20, 22, 31, 41, 48	800 cubic yards	166 ft. x 80 ft.	Ignitable, Reactive, And Incompatible
21	Burn Pan No. 1	040	Processing	2, 4, 6	1500 pounds	12 ft. x 10 ft.	Ignitable And Reactive
24	High Explosive Burning Tray No. 1	043	Processing	2, 4, 6	1500 pounds	20 ft. x 6 ft.	Ignitable And Reactive
25	High Explosive Burning Tray No. 2	044	Processing	2, 4, 6	1500 pounds	20 ft. x 6 ft.	Ignitable And Reactive
26	High Explosive Burning Tray No. 3	045	Processing	2, 4, 6	1500 pounds	20 ft. x 6 ft.	Ignitable And Reactive
27	High Explosive Burning Tray No. 4	046	Processing	2, 4, 6	1500 pounds	20 ft. x 6 ft.	Ignitable And Reactive
28	High Explosive Burning Tray No. 5	047	Processing	2, 4, 6	1500 pounds	20 ft. x 6 ft.	Ignitable And Reactive

**Table V.K. - Miscellaneous Units (Continued)**

Permit Unit No.	Miscellaneous Unit	N.O.R. No.	Storage, Processing, and/or Disposal	Waste Nos. <sup>1</sup>	Rated Capacity	Dimensions	Unit will manage Ignitable, Reactive, or Incompatible Waste (state all that apply)
29	High Explosive Burning Tray No. 6	048	Processing	2, 4, 6	1500 pounds	20 ft. x 6 ft.	Ignitable And Reactive
30	Burn Pan No. 7	049	Processing	2, 4, 6	1500 pounds	12 ft. x 10 ft.	Ignitable And Reactive
31	High Explosive Burning Tray No. 8	050	Processing	2, 4, 6	1500 pounds	16 ft. x 4 ft.	Ignitable And Reactive
32	High Explosive Burning Tray No. 9	051	Processing	2, 4, 6	1500 pounds	20 ft. x 6 ft.	Ignitable And Reactive
43	Flash Chamber	079	Processing	2, 4, 6	200 cubic yards	20 ft. x 12 ft.	Ignitable And Reactive

<sup>1</sup> From Table IV.B, first column.

<sup>2</sup> If YES, describe in the engineering report the procedures used to ensure compliance with 40 CFR 264.17.

<sup>3</sup> Repackaging, sorting, and sampling may occur on any waste stream; therefore, reactive waste may be managed in this unit. The hazardous waste numbers listed are the waste streams that may undergo the permitted treatment and processing.

<sup>4</sup> Capacity for 16-18 is the volume that could be in-process based on secondary containment allowances.

<sup>5</sup> Capacities for Burning Ground units are based on throughput per burn event.

**TABLE VI.D.2.b SOIL AND SEDIMENT MONITORING PARAMETERS**

Unit/Waste Management Area: Pantex Plant - RCRA Burning Ground Area

Parameter	Sampling Frequency	Method Detection Limit	Comparison Value <sup>1</sup>
Octahydro-1,3,5,7-tetranitro- 1,3,5,7-tetreaazozine (HMX)	Annual	1 mg/kg	Background <sup>2</sup>
Pentaerythritol tetranitrate (PETN)	Annual	5 mg/kg	Background <sup>2</sup>
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	Annual	1 mg/kg	Background <sup>2</sup>
Triaminonitrobenzene (TATB)	Annual	3 mg/kg	Background <sup>2</sup>
Trinitrotoluene (TNT)	Annual	10 mg/kg	Background <sup>2</sup>
2,4,-dinitrotoluene (2,4-DNT)	Annual	0.5 mg/kg	Background <sup>2</sup>
2,6,-dinitrotoluene (2,6-DNT)	Annual	0.5 mg/kg	Background <sup>2</sup>
1,3,5,-trinitorbenzene (TNB135)	Annual	10 mg/kg	Background <sup>2</sup>
Boron (B)	Annual	50 mg/kg	Background <sup>2</sup>
Cadmium (Cd)	Annual	1 mg/kg	Background <sup>2</sup>
Chromium (Cr)	Annual	5 mg/kg	Background <sup>2</sup>
Cobalt (Co)	Annual	5 mg/kg	Background <sup>2</sup>
Copper (Cu)	Annual	5 mg/kg	Background <sup>2</sup>
Lead (Pb)	Annual	2 mg/kg	Background <sup>2</sup>
Mercury (Hg)	Annual	0.2 mg/kg	Background <sup>2</sup>
Nickel (Ni)	Annual	5 mg/kg	Background <sup>2</sup>
Silver (Ag)	Annual	1 mg/kg	Background <sup>2</sup>
Zinc (Zn)	Annual	5 mg/kg	Background <sup>2</sup>

<sup>1</sup> The concentration limit is the basis for determining whether a release has occurred from the waste management unit/area.

<sup>2</sup> Background values are established separately for each grid/playa lake sampling location.



Permittee: U.S. Department of Energy/NNSA- Pantex Plant

**CP Table I: Waste Management Units and Areas Subject to Groundwater Corrective Action and Compliance Monitoring**A. Corrective Action<sup>1</sup> (30 TAC Section 335.166)

Unit Name	Notice of Registration (NOR) Number, if applicable	Date Program Requirement and Remedy Standard Completed <sup>4</sup>
1. N/A		

B. Compliance Monitoring<sup>1</sup> (30 TAC Section 335.165)

Unit Name	Notice of Registration (NOR) Number, if applicable	Date Program Requirement and Remedy Standard Completed <sup>4</sup>
1. N/A		

C. Corrective Action<sup>2</sup> (30 TAC Section 335.167)

	Unit Number	Unit Name	Notice of Registration (NOR) Number, if applicable	Date Program Requirement and Remedy Standard Completed <sup>4</sup>
1	AOC 11	Fire Training Area Burn Pits	-	
2	AOC 3b	Zone 11 Former Boiler House Areas	-	
3	SVS 6	Unnumbered Zone 7 Landfills	-	
4	SVS 7a&b	Magazine Demolition Debris Landfills (Zones 4 & 5)	-	
5	SWMU 10	Pantex Lake	-	
6	SWMU 136	Subsurface Leaching Bed (Bldg 12-59)	-	
7	SWMU 4	Drainage Ditch (Bldg 11-50)	-	
8	SWMU 5-12b	Perimeter Drainage Ditch from Zone 12 to SWMU 5-15	-	
9	SWMU 5-15 a&b	Drainage Ditch to Playa 4	-	
10	SWMU 58	Landfill 7	-	
11	SWMU 64	Landfill 13	-	
12	SWMU 66	Landfill 15	-	
13	SWMU 7	Playa 2	012	
14	SWMU 9	Playa 4	-	
15	Unassigned	Former 11-15 Pond	-	
16	AOC 8a	Pad 11-12 Solvent Leaks	-	
17	AOC 8b	Pad 11-13 Solvent Leaks	-	
18	SVS 2	Parallel Depressions Bldg 11-26	-	
19	SVS 5	Landfill East of Pad 11-13	-	
20	SWMU 147	Bldg 11-13 TNT Settling Pit	-	
21	SWMU 149	Bldg 11-26 TNT Settling Pit	-	

	<b>Unit Number</b>	<b>Unit Name</b>	<b>Notice of Registration (NOR) Number, if applicable</b>	<b>Date Program Requirement and Remedy Standard Completed<sup>4</sup></b>
22	SWMU 150	Bldg 11-12 TNT Settling Pit	-	
23	SWMU 60	Landfill 9	-	
24	SWMU 61	Landfill 10	-	
25	AOC 1	Transformer Leak (Bldg 11-14A)	-	
26	AOC 8c	Bldg 11-17 Solvent Leaks	-	
27	SWMU 117	High Explosives Settling Tank	010	
28	SWMU 118	Equalization Basin	016	
29	SWMU 119a	High Explosives Filters	010	
30	SWMU 12	Drainage Ditch Near Former 11-14 Pond	013	
31	SWMU 120a	Carbon Filters	010	
32	SWMU 148	Bldg 11-17 TNT Settling Pits	-	
33	SWMU 3	Drainage Ditch (Bldg 11-44)	-	
34	SWMU 86	11-14 Solvent Storage Shed	-	
35	AOC 7a	Bldg 11-36 Sulfuric Acid Spills	-	
36	AOC 8d	Pad 11-22 Solvent Leaks	-	
37	AOC 8e	Bldg 11-36 Solvent Leaks	089	
38	SWMU 113	Overflows from Bldg 11-36 Collection System/Sump	-	
39	SWMU 5-08	Drainage Ditch (Bldg 11-36)	-	
40	Unassigned	Former Leaching Bed North of Bldg 11-50 and West of Bldg 11-36	-	
41	SWMU 13	Former Solar Evaporation Pond (Bldg 11-51)	-	
42	SWMU 5-09a	Drainage Ditch (Bldg 11-17)	-	
43	SWMU 5-09b	Drainage Ditch (Bldg 11-20)	-	
44	SWMU 5-11	Zone 11 Main Perimeter Ditch	-	
45	SWMU 87	Bldg 11-20 Solvent Storage Shed	-	
46	Unassigned SWMU	Evaporation Pit South of Bay 11/West of Bay 6 (Bldg 11-20)	-	
47	Unassigned SWMU	Evaporation Pit East of Bay 3 (Bldg 11-20)	-	
48	AOC 7c	Bldg 12-64 Sulfuric Acid Spills	-	
49	SWMU 103	Former Battery Storage Area, (Bldg 12-81)	-	
50	SWMU 135	Leaching Bed (Bldg 12-44E)	-	
51	SWMU 5-06a	Drainage Ditch (Bldg 12-44E)	-	
52	SWMU 5-06b	Drainage Ditch (Bldg 12-81)	-	
53	SWMU 56	Landfill 5	-	
54	SWMU 57	Landfill 6	-	
55	SWMU 68a	Original Landfill	-	
56	AOC 10a	Bldg 12-43A Pesticide Rinse Area	-	
57	AOC 13a	Former Cooling Tower in Zone 12 (Pad)	-	

	<b>Unit Number</b>	<b>Unit Name</b>	<b>Notice of Registration (NOR) Number, if applicable</b>	<b>Date Program Requirement and Remedy Standard Completed<sup>4</sup></b>
58	AOC 13b	Former Cooling Tower in Zone 12 (Piping/Soil)	-	
59	SWMU 1	Drainage Ditch (Bldg 12-17)	-	
60	SWMU 119b	High Explosives Filters	009	
61	SWMU 120b	Carbon Filters	009	
62	SWMU 121	High Explosives Settling Tank	009	
63	SWMU 122a	Equalization Basin	015	
64	SWMU 122b	Bldg 12-24N & Bldg 12-43 Upland Soil	-	
65	SWMU 123	Concrete Sump & Waste water Treatment Unit	-	
66	SWMU 2	Drainage Ditch (Bldg 12-43)	-	
67	SWMU 5-04a	Bldg 12-19 Drainage Ditches	-	
68	SWMU 5-04b	Bldg 12-73 Drainage Ditches	-	
69	SWMU 5-05	Drainage Ditch (Bldgs 12-21 & 12-24)	-	
70	SWMU 5-07	Bldg 12-41 Drainage Ditch	-	
71	SWMU 5-12a	Zone 12 Main Perimeter Ditch	-	
72	SWMU 54	Landfill 3	-	
73	SWMU 55	Landfill 4	-	
74	AOC 10b	Bldg 12-51 Pesticide Rinse Area	-	
75	AOC 12	Paint Shop/ Solvent Pit (Bldg 12-5D)	-	
76	AOC 5	Electrical Equipment Bone Yard Near Bldg 12-5	-	
77	SWMU 5-02a	Drainage Ditch (Bldg 12-51)	-	
78	SWMU 5-02b	Drainage Ditch (Bldg 12-67)	-	
79	SWMU 5-02c	Drainage Ditch (Bldg 12-110)	-	
80	Unassigned SWMU	SWMU Capacitor Bank Rupture	-	
81	AOC 15	DDT Release (Bldg 12-35)	-	
82	SWMU 5-01a	Drainage Ditch(es) (Bldg 12-5)	-	
83	SWMU 5-01b	Drainage Ditch(es) (Bldg 12-5B)	-	
84	Unassigned	Concrete Sump (near Bldg 12-5B)	-	
85	SWMU 5-13a,b,c	Drainage Ditches to Playa 1	-	
86	SWMU 6	Playa 1	001	
87	SWMU 68b	Landfill 1	-	
88	SWMU 68c	Landfill 2	-	
89	SWMU 82	Nuclear Weapon Accident Residue Storage	-	
90	AOC 14	Battery Storage Area (Bldg 12-18)	-	
91	AOC 3a	Former Boiler House Areas	-	
92	SVS 3 (SWMU 67)	Carbon Black Burial Area near Bldg 10-7	-	
93	SVS 8	Abandoned Zone 10 Landfill	-	

	<b>Unit Number</b>	<b>Unit Name</b>	<b>Notice of Registration (NOR) Number, if applicable</b>	<b>Date Program Requirement and Remedy Standard Completed<sup>4</sup></b>
94	SWMU 143a	Former Waste Drum Storage Areas (Bldg 10-9)	-	
95	SWMU 143b	Former Waste Drum Storage Areas (Bldg 10-7)	-	
96	SWMU 144	Zone 10 TNT Settling Pit (Bldg 10-13)	-	
97	SWMU 145	Zone 10 TNT Settling Pit (Bldg 10-17)	-	
98	SWMU 146	Zone 10 TNT Settling Pit (Bldg 10-26)	-	
99	SWMU 68d	Sanitary Landfill	002	
100	SWMU 84	Scrap, Salvage, and Storage Yard (Bldg 10-9)	-	
101	Unassigned AOC	Zone 10 Landfills West and Southwest of SWMU 84 Scrap and Salvage Yard	-	
102	Unassigned SWMU	Zone 10 Berms	-	
103	SWMU 14	Explosive Burn Pad 1	004	
104	SWMU 15	Explosive Burn Pad 2	004	
105	SWMU 16	Explosive Burn Pad 3	004	
106	SWMU 17	Explosive Burn Pad 4	004	
107	SWMU 18	Explosive Burn Pad 5	004	
108	SWMU 19	Explosive Burn Pad 6	004	
109	SWMU 20	Explosive Burn Pad 7	004	
110	SWMU 21	Explosive Burn Pad 7A	004	
111	SWMU 22	Explosive Burn Pad 8	004	
112	SWMU 23	Explosive Burn Pad 9	004	
113	SWMU 24	Explosive Burn Pad 10	004	
114	SWMU 25	Explosive Burn Pad 11 (Including Wash Rack)	004	
115	SWMU 26	Explosive Burn Pad 12	004	
116	SWMU 27	Explosive Burn Pad 13	004	
117	SWMU 37	Burning Ground Landfill 1	006	
118	SWMU 38	Burning Ground Landfill 2	006	
119	SWMU 39	Burning Ground Landfill 3	006	
120	SWMU 40	Burning Ground Landfill 4	006	
121	SWMU 41	Burning Ground Landfill 5	006	
122	SWMU 42	Burning Ground Landfill 6	006	
123	SWMU 43	Burning Ground Landfill 7	006	
124	SWMU 44	Burning Ground Landfill 8	006	
125	SWMU 45	Explosive Burn Cage	039	3/4/1997
126	SWMU 46	Explosive Burn Cage	039	3/4/1997
127	SWMU 47	Chemical Burn / Evaporation Pits	-	
128	SWMU 48	Burning Ground Solvent Evap. Pans	-	

	<b>Unit Number</b>	<b>Unit Name</b>	<b>Notice of Registration (NOR) Number, if applicable</b>	<b>Date Program Requirement and Remedy Standard Completed<sup>4</sup></b>
129	SWMU 49	Burning Ground Solvent Evap. Pans	-	
130	SWMU 50	Burning Ground Solvent Evap. Pans	-	
131	SWMU 51	Burning Ground Solvent Evap. Pans	-	
132	SWMU 52	Burn Racks and Flashing Pits	004, 052, 053, 054	
133	SWMU 8	Playa 3	019	
134	Unassigned	Demonstration Facilities	-	

D. Alternative Corrective Action<sup>3</sup> (30 TAC Section 335.151)

<b>Unit Name</b>	<b>Notice of Registration (NOR) Number, if applicable</b>	<b>Date Program Requirement and Remedy Standard Completed<sup>4</sup></b>
1. N/A		

**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.

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

	<b>Unit Number</b>	<b>Unit Name</b>	<b>NOR Number, if applicable</b>	<b>Date Program Requirement and Remedy Standard Completed <sup>1</sup></b>
1	AOC 11	Fire Training Area Burn Pits	-	
2	AOC 2	Main Electrical Substation (4-28)	-	9 /22/1993
3	AOC 3b	Zone 11 Former Boiler House Areas	-	
4	AOC 4	Asbestos Installation (Plant-wide)	-	6 /27/2003
5	AOC 6b	Gasoline Leak at Bldg 16-1	-	8 /24/1999
6	AOC 7b	Bldg 12-4 Sulfuric Acid Spill	-	6 /3 /2005
7	AOC 9	Site-Wide, Underground Storage Tanks	-	6 /27/2003
8	Permitted Unit 53	Igloo 4-72 Storage	-	
9	Permitted Unit 1	Container Storage 11-7N Pad	-	3 /28/2005
10	Permitted Unit 10	Container Storage Area (Conex WM7)	-	9/5/2000
11	Permitted Unit 11	Container Storage Area (Conex WM8)	-	9 /5 /2000
12	Permitted Unit 36	Bldgs 11-9 Tank	-	2 /23/1999
13	Permitted Unit 37	Bldg 11-9 Tank	-	2 /23/1999
14	Permitted Unit 38	Bldg 11-15a Tank	-	2 /23/1999
15	Permitted Unit 39	Bldg 11-15a Tank	-	2 /23/1999
16	Permitted Unit 40	Bldg 11-9 Container Storage Area	-	4 /22/1998
17	Permitted Unit 46	Container Storage Area (Conex WM1-A)	-	4 /22/1998
18	Permitted Unit 47	Container Storage Area (Conex WM1-B)	-	4 /22/1998
19	Permitted Unit 48	Container Storage Area (Conex WM3-A)	-	4 /22/1998
20	Permitted Unit 49	Container Storage Area (Conex WM5-A)	-	4 /22/1998
21	Permitted Unit 50	Container Storage Area (Conex WM5-B)	-	4 /22/1998
22	Permitted Unit 52	Igloo 4-46 Storage	-	4 /22/1998
23	Permitted Unit 54	Igloo 4-74 Storage	-	4 /22/1998
24	Permitted Unit 8	Container Storage Area (Conex WM5)	-	9 /5 /2000
25	Permitted Unit 9	Container Storage Area (Conex WM6)	-	9 /1 /2000
26	SVS 4	Old Pistol Range	-	
27	SVS 6	Unnumbered Zone 7 Landfills	-	
28	SVS 7a&b	Magazine Demolition Debris Landfills (Zones 4 & 5)	-	

	<b>Unit Number</b>	<b>Unit Name</b>	<b>NOR Number, if applicable</b>	<b>Date Program Requirement and Remedy Standard Completed <sup>1</sup></b>
29	SWMU 10	Pantex Lake	-	
30	SWMU 101	Waste Accumulation Area, Bldg 12-59	-	6 /27/2003
31	SWMU 106	Waste Accumulation Site at Bldg 16-1	-	12/22/2005
32	SWMU 107	Bldg 16-5, Flammable Liquid Storage	-	6 /27/2003
33	SWMU 11	Surface Impoundment in Zone 5 (Bldg FS-16)	-	12/22/2005
34	SWMU 124	Bldg 11-50 Waste Water Treatment System	-	9/19/2001
35	SWMU 127	Miscellaneous Non-hazardous Waste Dumpsters	-	9 /19/2001
36	SWMU 128	Portable HE Waste water Tanks	-	9 /19/2001
37	SWMU 132	Vacuum Guzzlers	-	9 /19/2001
38	SWMU 133	UST #30, Waste Oil Tank at Bldg 16-1	-	8 /18/1999
39	SWMU 134	Bldg 11-29 Silver Recovery	-	9 /19/2001
40	SWMU 136	Subsurface Leaching Bed (Bldg 12-59)	-	
41	SWMU 139	Photo Processing Leaching Bed (Bldg FS-10)	-	12/22/2005
42	SWMU 140	Old Sewage Treatment Plant/Sludge Beds	-	12/22/2005
43	SWMU 142	Miscellaneous Hood and Filter Systems, 24 Bldgs	-	9 /19/2001
44	SWMU 4	Drainage Ditch (Bldg 11-50)	-	
45	SWMU 5-10	Drainage Ditches near the Old Sewage Treatment Plant	-	12/22/2005
46	SWMU 5-12b	Perimeter Drainage Ditch from Zone 12 to SWMU 5-15	-	
47	SWMU 5-14	Drainage Ditch from Zone 11 to Playa 2	-	12/22/2005
48	SWMU 5-15 a&b	Drainage Ditch to Playa 4	-	
49	SWMU 53	Temporary High Explosives Burning Ground	-	12/22/2005
50	SWMU 58	Landfill 7	-	
51	SWMU 62	Landfill 11	-	7 /29/2004
52	SWMU 63	Landfill 12	-	12/22/2005
53	SWMU 64	Landfill 13	-	
54	SWMU 65	Landfill 14 (Duplicate of SVS 6)	-	6 /27/2003
55	SWMU 66	Landfill 15	-	
56	SWMU 69	Firing Site 4	-	
57	SWMU 7	Playa 2	012	
58	SWMU 70	Firing Site 5	-	8 /4 /1999
59	SWMU 71	Firing Site 6	-	11/1 /2000
60	SWMU 72	Firing Site 10	-	
61	SWMU 73	Firing Site 15	-	11/1 /2000
62	SWMU 74	Firing Site 21	-	
63	SWMU 75	Firing Site 22	-	
64	SWMU 76	Firing Site 18	-	9 /19/2001
65	SWMU 77	Firing Site 23, Filter/Exhaust System	-	9/19/2001
66	SWMU 78	Firing Site 24, Concrete Sump	-	
67	SWMU 79a	11-7A (Unit 41) Container	003, 037, 038	3/25/2005

	<b>Unit Number</b>	<b>Unit Name</b>	<b>NOR Number, if applicable</b>	<b>Date Program Requirement and Remedy Standard Completed <sup>1</sup></b>
68	SWMU 79b	11-7B Pad (Unit 42) Container	003, 037, 038	3 /25/2005
69	SWMU 81	Mixed Waste Storage, Magazine 4-19	-	10/29/1993
70	SWMU 83	Bldg 4-8, Container Storage Bldg, Asbestos Staging Area	-	9 /19/2001
71	SWMU 9	Playa 4	-	
72	SWMU 98	Bldg 12-38 Solvent Storage	-	6 /27/2003
73	Unassigned	Unlined Landfill/Landfill 18 North of Firing Site 10	-	7 /29/2004
74	Unassigned	Dumpster Area near FS-11	-	12/22/2005
75	Unassigned	Former 11-15 Pond	-	
76	Unassigned AOC	Bldg 12-1 Laundry Sump	-	6 /3 /2005
77	Unassigned SWMU	FS-22 Container Gun Barrel	-	8 /3 /1999
78	AOC 8a	Pad 11-12 Solvent Leaks	-	
79	AOC 8b	Pad 11-13 Solvent Leaks	-	
80	SVS 2	Parallel Depressions Bldg 11-26	-	
81	SVS 5	Landfill East of Pad 11-13	-	
82	SWMU 147	Bldg 11-13 TNT Settling Pit	-	
83	SWMU 149	Bldg 11-26 TNT Settling Pit	-	
84	SWMU 150	Bldg 11-12 TNT Settling Pit	-	
85	SWMU 59	Landfill East of Pad 11-13 (Duplicate of SVS 5)	-	6 /27/2003
86	SWMU 60	Landfill 9	-	
87	SWMU 61	Landfill 10	-	
88	AOC 1	Transformer Leak (Bldg 11-14A)	-	
89	AOC 8c	Bldg 11-17 Solvent Leaks	-	
90	SWMU 117	High Explosives Settling Tank (Bldg 11-44)	010	3/18/1994
91	SWMU 118	Equalization Basin (Bldg 11-44)	016	8/26/2002
92	SWMU 119a	High Explosives Filters (Bldg 11-44)	010	3/18/1994
93	SWMU 12	Drainage Ditch Near Former 11-14 Pond	013	
94	SWMU 120a	Carbon Filters (Bldg 11-44)	010	3/18/1994
95	SWMU 129a	HE Contaminated Sludge Containers, Bldg 11-44	-	9 /19/2001
96	SWMU 148	Bldg 11-17 TNT Settling Pits	-	
97	SWMU 3	Drainage Ditch (Bldg 11-44)	-	
98	SWMU 86	11-14 Solvent Storage Shed	-	
99	Unassigned SWMU	11-14 Hypalon Pond and Waste water Line	-	2 /21/1995
100	AOC 7a	Bldg 11-36 Sulfuric Acid Spills	-	
101	AOC 8d	Pad 11-22 Solvent Leaks	-	
102	AOC 8e	Bldg 11-36 Solvent Leaks	089	
103	SWMU 111	Bldg 11-36 Solvent Tanks	-	9 /19/2001
104	SWMU 112	Bldg 11-36 Solvent Tanks	-	9 /19/2001
105	SWMU 113	Overflows from Bldg 11-36 Collection System/Sump	-	
106	SWMU 114	Bldg 11-36 Scrubber System	-	9 /19/2001
107	SWMU 115	Bldg 11-36 Carbon Filter	-	9 /19/2001



	<b>Unit Number</b>	<b>Unit Name</b>	<b>NOR Number, if applicable</b>	<b>Date Program Requirement and Remedy Standard Completed <sup>1</sup></b>
108	SWMU 116	Bldg 11-36 Sludge Filters	-	9 /19/2001
109	SWMU 130	Portable Waste Solvent Tanks, Building 11-36	-	5 /3 /1999
110	SWMU 5-08	Drainage Ditch (Bldg 11-36)	-	
111	Unassigned	Former Leaching Bed North of Bldg 11-50 and West of Bldg 11-36	-	
112	SWMU 13	Former Solar Evaporation Pond (Bldg 11-51)	-	
113	SWMU 5-09a	Drainage Ditch (Bldg 11-17)	-	
114	SWMU 5-09b	Drainage Ditch (Bldg 11-20)	-	
115	SWMU 5-11	Zone 11 Main Perimeter Ditch	-	
116	SWMU 87	Bldg 11-20 Solvent Storage Shed	-	
117	SWMU 88	11-41 Compressor Bldg Waste Accumulation	-	6 /27/2003
118	Unassigned SWMU	Evaporation Pit South of Bay 11/West of Bay 6 (Bldg 11-20)	-	
119	Unassigned SWMU	Evaporation Pit East of Bay 3 (Bldg 11-20)	-	
120	AOC 7c	Bldg 12-64 Sulfuric Acid Spills	-	
121	SWMU 100	Waste Accumulation Area, (Bldg 12-42)	-	6 /27/2003
122	SWMU 103	Former Battery Storage Area, (Bldg 12-81)	-	
123	SWMU 104	Waste Accumulation Area, (Bldg 12-82)	-	6 /27/2003
124	SWMU 105	Waste Accumulation Area, (Bldg 12-84)	-	6 /27/2003
125	SWMU 135	Leaching Bed (Bldg 12-44E)	-	
126	SWMU 5-06a	Drainage Ditch (Bldg 12-44E)	-	
127	SWMU 5-06b	Drainage Ditch (Bldg 12-81)	-	
128	SWMU 56	Landfill 5	-	
129	SWMU 57	Landfill 6	-	
130	SWMU 68a	Original Landfill	-	
131	Unassigned	UST #39 North of Bldg 12-84A	-	8 /18/1999
132	Unassigned	UST #38 Bldg 12-98	-	8 /18/1999
133	Unassigned	UST #9 Bldg 12-17E	-	8 /18/1999
134	AOC 10a	Bldg 12-43A Pesticide Rinse Area	-	
135	AOC 13a	Former Cooling Tower in Zone 12 (Pad)	-	
136	AOC 13b	Former Cooling Tower in Zone 12 (Piping/Soil)	-	
137	SWMU 1	Drainage Ditch (Bldg 12-17)	-	
138	SWMU 119b	High Explosives Filters (Bldg 12-43)	009	3/18/994
139	SWMU 120b	Carbon Filters (Bldg 12-43)	009	3/18/994
140	SWMU 121	High Explosives Settling Tank (Bldg 12-43)	009	3/18/994
141	SWMU 122a	Equalization Basin (Bldg 12-43)	015	8/26/2002
142	SWMU 122b	Bldg 12-24N & Bldg 12-43 Upland Soil	-	
143	SWMU 123	Concrete Sump (Bldg 12-43)	-	

	<b>Unit Number</b>	<b>Unit Name</b>	<b>NOR Number, if applicable</b>	<b>Date Program Requirement and Remedy Standard Completed <sup>1</sup></b>
144	SWMU 125	Bldg 12-43 HE Contaminated Charcoal Boxes	-	9 /19/2001
145	SWMU 126	Miscellaneous HE Contaminated Waste Dumpsters	-	9 /19/2001
146	SWMU 129b	HE Contaminated Sludge Containers Bldg 12-43	-	9 /19/2001
147	SWMU 137	Bldg 12-41, Paint Shop Waste water Tank	-	6 /27/2003
148	SWMU 2	Drainage Ditch (Bldg 12-43)	-	
149	SWMU 5-04a	Bldg 12-19 Drainage Ditches	-	
150	SWMU 5-04b	Bldg 12-73 Drainage Ditches	-	
151	SWMU 5-05	Drainage Ditch (Bldgs 12-21 & 12-24)	-	
152	SWMU 5-07	Bldg 12-41 Drainage Ditch	-	
153	SWMU 5-12a	Zone 12 Main Perimeter Ditch	-	
154	SWMU 54	Landfill 3	-	
155	SWMU 55	Landfill 4	-	
156	SWMU 96	Waste Accumulation Area, Bldg 12-21	-	6 /27/2003
157	SWMU 97	Waste Accumulation Area, Bldg 12-34	-	5 /3 /1999
158	SWMU 99	Waste Accumulation Area, Bldg 12-41	-	6 /27/2003
159	SWMU 102	Bldg 12-68 Batch Master, Northeast Corner	-	6 /27/2003
160	SWMU 108	Bldg 12-68 Batch Master	-	5 /29/1997
161	SWMU 109	Concrete Sump (Bldg 12-68)	-	6 /3 /2005
162	SWMU 110	Bldg 12-68 Electroplating Waste Retention Basin (Moat)	-	6 /3 /2005
163	SWMU 141	Classified Waste Incinerator	-	9 /19/2001
164	SWMU 5-03a	Drainage Ditches (Bldg12-68)	-	6 /3 /2005
165	SWMU 5-03b	Drainage Ditches (Bldg 12-18)	-	6 /3 /2005
166	SWMU 5-03c	Drainage Ditches (Bldg 12-9)	-	6 /3 /2005
167	SWMU 5-03d	Drainage Ditch (Bldg 12-10)	-	6 /3 /2005
168	SWMU 85	MOCA Waste Accumulation Area, Bldg 12-16	-	9 /19/2001
169	SWMU 90	Waste Accumulation Area, Bldg 12-9	-	6 /27/2003
170	SWMU 91	Waste Accumulation Area, Bldg 12-9 Solvent Storage Shed	-	6 /27/2003
171	SWMU 92	Waste Accumulation Area, Bldg 12-9 (outside)	-	6 /27/2003
172	SWMU 94	Waste Accumulation Area, Bldg 12-R-13 (outside)	-	6 /27/2003
173	SWMU 95	Waste Accumulation Area, Bldg 12-18 (outside)	-	6 /27/2003
174	AOC 10b	Bldg 12-51 Pesticide Rinse Area	-	
175	AOC 12	Paint Shop/ Solvent Pit (Bldg 12-5D)	-	
176	AOC 5	Electrical Equipment Bone Yard Near Bldg 12-5	-	

	<b>Unit Number</b>	<b>Unit Name</b>	<b>NOR Number, if applicable</b>	<b>Date Program Requirement and Remedy Standard Completed <sup>1</sup></b>
177	SWMU 138	Zone 12 Paint Shop Sandblaster Collection Cone	-	9 /19/2001
178	SWMU 5-02a	Drainage Ditch (Bldg 12-51)	-	
179	SWMU 5-02b	Drainage Ditch (Bldg 12-67)	-	
180	SWMU 5-02c	Drainage Ditch (Bldg 12-110)	-	
181	SWMU 93	Waste Accumulation Area, Bldg 12-111 Paint Shop	-	6 /27/2003
182	Unassigned SWMU	SWMU Capacitor Bank Rupture	-	
183	AOC 15	DDT Release (Bldg 12-35)	-	
184	AOC 6a	Gasoline Leaks at Bldgs 12-35	-	8 /24/1999
185	SWMU 131	Portable Waste Oil Storage Tanks (Bldg 12-35)	-	9 /19/2001
186	SWMU 5-01a	Drainage Ditch(es) (Bldg 12-5)	-	
187	SWMU 5-01b	Drainage Ditch(es) (Bldg 12-5B)	-	
188	SWMU 89	Waste Accumulation Area, Bldg 12-2 North Hall	-	6 /27/2003
189	Unassigned	UST #7 Bldg 12-5B	-	8 /18/1999
190	Unassigned	Concrete Sump (near Bldg 12-5B)	-	
191	SVS 1	Denuded Area near Playa 1	-	12/22/2005
192	SWMU 5-13a,b,c	Drainage Ditches to Playa 1	-	
193	SWMU 6	Playa 1	001	
194	SWMU 68b	Landfill 1	-	
195	SWMU 68c	Landfill 2	-	
196	SWMU 80	Container Storage Area Conex 3 (Permitted Unit 6) in Zone 4	-	9 /5 /2000
197	SWMU 80	Container Storage Area Conex 1 (Permitted Unit 4) in Zone 4	-	9 /1 /2000
198	SWMU 80	Container Storage Area Conex 2 (Permitted Unit 5) in Zone 4	-	9 /1 /2000
199	SWMU 80	Container Storage Area Conex 4 (Permitted Unit 7) in Zone 4	-	9 /5 /2000
200	SWMU 82	Nuclear Weapon Accident Residue Storage	-	
201	AOC 14	Battery Storage Area (Bldg 12-18)	-	
202	AOC 3a	Former Boiler House Areas	-	
203	SVS 3 (SWMU 67)	Carbon Black Burial Area near Bldg 10-7	-	
204	SVS 8	Abandoned Zone 10 Landfill	-	
205	SWMU 143a	Former Waste Drum Storage Areas (Bldg 10-9)	-	
206	SWMU 143b	Former Waste Drum Storage Areas (Bldg 10-7)	-	
207	SWMU 144	Zone 10 TNT Settling Pit (Bldg 10-13)	-	
208	SWMU 145	Zone 10 TNT Settling Pit (Bldg 10-17)	-	
209	SWMU 146	Zone 10 TNT Settling Pit (Bldg 10-26)	-	

	<b>Unit Number</b>	<b>Unit Name</b>	<b>NOR Number, if applicable</b>	<b>Date Program Requirement and Remedy Standard Completed <sup>1</sup></b>
210	SWMU 68d	Sanitary Landfill	002	
211	SWMU 84	Scrap, Salvage, and Storage Yard (Bldg 10-9)	-	
212	Unassigned AOC	Zone 10 Landfills West and Southwest of SWMU 84 Scrap and Salvage Yard	-	
213	Unassigned SWMU	Zone 10 Berms	-	
214	SWMU 14	Explosive Burn Pad 1	004	
215	SWMU 15	Explosive Burn Pad 2	004	
216	SWMU 16	Explosive Burn Pad 3	004	
217	SWMU 17	Explosive Burn Pad 4	004	
218	SWMU 18	Explosive Burn Pad 5	004	
219	SWMU 19	Explosive Burn Pad 6	004	
220	SWMU 20	Explosive Burn Pad 7	004	
221	SWMU 21	Explosive Burn Pad 7A	004	
222	SWMU 22	Explosive Burn Pad 8	004	
223	SWMU 23	Explosive Burn Pad 9	004	
224	SWMU 24	Explosive Burn Pad 10	004	
225	SWMU 25	Explosive Burn Pad 11 (Including Wash Rack)	004	
226	SWMU 26	Explosive Burn Pad 12	004	
227	SWMU 27	Explosive Burn Pad 13	004	
228	SWMU 28	Active Burn Tray <sup>1</sup>		
229	SWMU 29	Active Burn Tray <sup>1</sup>		
230	SWMU 30	Active Burn Tray <sup>1</sup>		
231	SWMU 31	Active Burn Tray <sup>1</sup>		
232	SWMU 32	Active Burn Tray <sup>1</sup>		
233	SWMU 33	Active Burn Tray <sup>1</sup>		
234	SWMU 34	Active Burn Pan <sup>1</sup>		
235	SWMU 35	Active Burn Tray <sup>1</sup>		
236	SWMU 36	Active Burn Tray <sup>1</sup>		
237	SWMU 37	Burning Ground Landfill 1	006	
238	SWMU 38	Burning Ground Landfill 2	006	
239	SWMU 39	Burning Ground Landfill 3	006	
240	SWMU 40	Burning Ground Landfill 4	006	
241	SWMU 41	Burning Ground Landfill 5	006	
242	SWMU 42	Burning Ground Landfill 6	006	
243	SWMU 43	Burning Ground Landfill 7	006	
244	SWMU 44	Burning Ground Landfill 8	006	
245	SWMU 45	Explosive Burn Cage	039	3/4/1997
246	SWMU 46	Explosive Burn Cage	039	3/4/1997
247	SWMU 47	Chemical Burn / Evaporation Pits	-	
248	SWMU 48	Burning Ground Solvent Evap. Pans	-	
249	SWMU 49	Burning Ground Solvent Evap. Pans	-	
250	SWMU 50	Burning Ground Solvent Evap. Pans	-	
251	SWMU 51	Burning Ground Solvent Evap. Pans	-	
252	SWMU 52	Burn Racks and Flashing Pits	004, 052, 053, 054	3/4/1997
253	SWMU 8	Playa 3	019	
254	Unassigned	Demonstration Facilities	-	

**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.

**CP Table III: Corrective Action Program  
 Uncertainty Management Monitoring**

**Table of Constituents of Concern Monitored Every Five Years and the  
 Groundwater Protection Standard**

<b>Hazardous Constituents</b>	<b>Groundwater Protection Standards (mg/L) or (pCi/L<sup>2</sup> as indicated)</b>	<b>Basis</b>
Antimony	0.015	BKG
Arsenic	0.012	BKG
Barium	2	MCL
Beryllium	0.004	MCL
Boron	7.3	GW-Res <sub>NC</sub>
Cadmium	0.005	MCL
Chromium	0.1	MCL
Chromium, Hexavalent	0.1	MCL
Cobalt	2.19	MSC
Copper	1.3	MCL
Lead	0.015	MSC
Mercury	0.003	BKG
Nickel	0.73	MSC
Selenium	0.05	MSC
Silver	0.1825	MSC
Thallium	0.0339	BKG
Tin	21.9	MSC
Vanadium	0.2555	MSC
Zinc	10.95	MSC
1,1,1,2-Tetrachloroethane	0.0328	MSC
1,1,1-Trichloroethane	0.2	MCL
1,1,2,2-Tetrachloroethane	0.005	PQL
1,1,2-Trichloroethane	0.005	MCL
1,1-Dichloroethane	3.65	MSC
1,1-Dichloroethene	0.007	MCL
1,2,3-Trichloropropane	0.01	PQL
1,2-Dichlorobenzene	0.6	MCL
1,2-Dichloroethane	0.005	MCL
1,2-Dichloropropane	0.005	MCL
1,3-Dichlorobenzene	1.095	MSC
1,4-Dichlorobenzene	0.075	MCL
2-Hexanone	2.19	MSC
Acetone	32.85	MSC
Acetonitrile	1.168	MSC
Acrolein	0.05	PQL
Acrylonitrile	0.05	PQL
Allyl Chloride	0.005	PQL
Benzene	0.005	MCL
Bromoform	0.0108	MSC
Carbon Disulfide	3.65	MSC
Carbon Tetrachloride	0.005	MCL
Chlorobenzene	0.1	MCL
Chloroethane	14.6	MSC

Hazardous Constituents	Groundwater Protection Standards (mg/L) or (pCi/L <sup>2</sup> as indicated)	Basis
Chloroform	0.08	MCL for Trihalomethanes (including Chloroform)
Chloromethane	0.0655	MSC
Chloroprene	0.005	PQL
cis-1,2-Dichloroethene	0.07	MCL
Dibromochloromethane	0.0101	MSC
Dichlorodifluoromethane	7.3	MSC
Ethyl Methacrylate	3.285	MSC
Ethylbenzene	0.7	MCL
Isobutanol	10.95	MSC
Methacrylonitrile	1.3	PQL
Methyl Bromide	0.0511	MSC
Methyl Ethyl Ketone	21.9	MSC
Methyl Iodide	0.0511	MSC
Methyl Isobutyl Ketone	2.92	MSC
Methyl Methacrylate	51.1	MSC
Methylene Bromide	0.1136	MSC
Methylene Chloride	0.005	MCL
Pentachloroethane	0.0328	MSC
Propionitrile	0.05	PQL
Styrene	0.1	MCL
Tetrachloroethylene	0.005	MCL
Toluene	1	MCL
trans-1,2-Dichloroethene	0.1	MSC
trans-1,3-Dichloropropene	0.0085	MSC
trans-1,4-Dichloro-2-butene	0.01	PQL
Trichloroethene	0.005	MCL
Trichlorofluoromethane	10.95	MSC
Vinyl Acetate	36.5	MSC
Vinyl Chloride	0.002	MCL
Xylenes, Total	10	MCL
Sulfide	None <sup>1</sup>	None
1,4-Dioxane	0.0077	GW-Resc
Uranium-234	30 pCi/L <sup>2</sup>	MCL <sup>3</sup>
Uranium-235	30 pCi/L <sup>2</sup>	MCL <sup>3</sup>
Uranium-238	30 pCi/L <sup>2</sup>	MCL <sup>3</sup>
Uranium, Total	0.03 <sup>2</sup>	MCL <sup>3</sup>
2-Amino-4,6-dinitrotoluene	0.0012	GW-Res <sub>NC</sub> Adj
4-Amino-2,6-dinitrotoluene	0.0012	GW-Res <sub>NC</sub> Adj
1,3-Dinitrobenzene	0.0037	GW-Resc
2,4-Dinitrotoluene	0.001	PQL <sup>2</sup>
2,6-Dinitrotoluene	0.001	PQL <sup>2</sup>
HMX	0.36	GW-Res <sub>NC</sub> Adj
RDX	0.002	EPA Lifetime HA
MNX	0.002	EPA Lifetime HA for RDX
DNX	0.002	EPA Lifetime HA for RDX
TNX	0.002	EPA Lifetime HA for RDX
1,3,5-Trinitrobenzene	0.22	GW-Res <sub>NC</sub> Adj
TNT	0.0036	GW-Res <sub>NC</sub> Adj

Hazardous Constituents	Groundwater Protection Standards (mg/L) or (pCi/L <sup>2</sup> as indicated)	Basis
Perchlorate	0.026	GW-Res <sub>NC</sub>

<sup>1</sup>Sulfide is not necessarily of concern from a human health standpoint, therefore calculation of human health-based values is not required for the TCEQ. No secondary MCLs or other criteria were identified for sulfide.

<sup>2</sup>GWPS for uranium isotopes is based on units of mass (ug/L) and activity (pCi/L).

<sup>3</sup>Uranium MCL is 30 ug/L. EPA also recommends a drinking water level of 30 pCi/L for combined activity of all isotopes.

#### Foot Note:

- MSC ACL pursuant to 30 TAC Section 335.160(b) based upon the Groundwater Medium-Specific Concentration, Residential {...or Industrial...} Risk Reduction Standard No. 2 {...or No. 3} specified in 30 TAC Section 335 Subchapter S.
- MCL ACL pursuant to 30 TAC Section 335.160(b) based upon the Groundwater Maximum Contaminant Level specified in 40 CFR Part 141, National Primary Drinking Water Regulations Subparts B and G.
- BKG Background from approved Risk Reduction Rule Guidance to the Pantex RFIR (BWXT Pantex and SAIC, 2002, Updated March 2004).
- PQL Non-detectable at Practical Quantitation Limit (PQL) as determined by the analytical methods of the United States Environmental Protection Agency=s publication SW-846 Test Methods for Evaluating Solid Waste, most recent edition, and as listed in the July 8, 1987 edition of the Federal Register and later editions. ThePQL is the lowest concentrations of analytes in groundwaters that can be reliably determined within specified limits of precision and accuracy by the indicated methods under routine laboratory operating conditions across all Pantex laboratories.
- GW-Res TCEQ Risk Reduction Standard No. 2 Groundwater MSC for Residential Use
- HA EPA Health Advisory
- MCL EPA Maximum Contaminant Level
- PQL Practical Quantitation Limit
- C Carcinogenic
- NC Noncarcinogenic
- Adj Value adjusted for a cumulative hazard index or quotient.



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

Unit Name	Hazardous Constituents	Groundwater Protection Standard (mg/L)	Basis of GWPS
<b>Perched Zone 11 Sector Indicator List</b>			
<b>Metals</b>			
SWMU 3	Boron	7.3	GW-Res <sub>NC</sub>
	<b>VOCs</b>		
SWMU 12	1,2-Dichloroethane	0.005	MCL
	1,4-Dioxane	0.0077	GW-Res <sub>C</sub>
SWMU 113	Chloroform	0.08	MCL for Trihalomethanes (including Chloroform)
AOC 8a	PCE	0.005	MCL
	TCE	0.005	MCL
Unassigned Evaporation Pit South of Bay 11/ West of Bay 6	<i>cis</i> -1,2-dichloroethene	0.07	MCL
	<i>trans</i> -1,2-Dichloroethene	0.10	MCL
	Vinyl Chloride	0.002	MCL
<b>High Explosives</b>			
Unassigned SWMU Evaporation Pit East of Bay 3	2-Amino-4,6-dinitrotoluene	0.0012	GW-Res <sub>NC Adj</sub>
	4-Amino-2,6-dinitrotoluene	0.0012	GW-Res <sub>NC Adj</sub>
AOC 11	1,3-Dinitrobenzene	0.0037	GW-Res <sub>C</sub>
	2,4-Dinitrotoluene	0.001	PQL
	2,6-Dinitrotoluene	0.001	PQL
SWMU 5-13a	HMX	0.36	GW-Res <sub>NC Adj</sub>
	RDX	0.002	EPA Lifetime HA
Unassigned – 11-14 Pond	MNX	0.002	EPA Lifetime HA for RDX
	DNX	0.002	EPA Lifetime HA for RDX
	TNX	0.002	EPA Lifetime HA for RDX
	1,3,5-Trinitrobenzene	0.22	GW-Res <sub>NC Adj</sub>
	TNT	0.0036	GW-Res <sub>NC Adj</sub>
<b>Miscellaneous</b>			
	Perchlorate	0.026	GW-Res <sub>NC</sub>
<b>Perched Burning Ground Sector Indicator List</b>			
<b>Metals</b>			
SWMU 47	Boron	7.3	GW-Res <sub>NC</sub>
	<b>VOCs</b>		
SWMU 47	1,2-Dichloroethane	0.005	MCL
	Chloroform	0.08	MCL for Trihalomethanes (including Chloroform)
SWMU 47	PCE	0.005	MCL
	TCE	0.005	MCL
SWMU 47	<i>cis</i> -1,2-Dichloroethene	0.07	MCL
	<i>trans</i> -1,2-Dichloroethene	0.10	MCL
SWMU 47	Vinyl Chloride	0.002	MCL
<b>High Explosives</b>			
	2-Amino-4,6-dinitrotoluene	0.0012	GW-Res <sub>NC Adj</sub>

Unit Name	Hazardous Constituents	Groundwater Protection Standard (mg/L)	Basis of GWPS
	4-Amino-2,6-dinitrotoluene	0.0012	GW-Res <sub>NC Adj</sub>
	1,3-Dinitrobenzene	0.0037	GW-Res <sub>C</sub>
	2,4-Dinitrotoluene	0.001	PQL
	2,6-Dinitrotoluene	0.001	PQL
	HMX	0.36	GW-Res <sub>NC Adj</sub>
	RDX	0.002	EPA Lifetime HA
	MNX	0.002	EPA Lifetime HA for RDX
	DNX	0.002	EPA Lifetime HA for RDX
	TNX	0.002	EPA Lifetime HA for RDX
	1,3,5-Trinitrobenzene	0.22	GW-Res <sub>NC Adj</sub>
	TNT	0.0036	GW-Res <sub>NC Adj</sub>
	<b>Miscellaneous</b>		
	Perchlorate	0.026	GW-Res <sub>NC</sub>
<b>Perched Southeast Sector Indicator List</b>			
<b>Metals</b>			
AOC 13	Boron	7.3	GW-Res <sub>NC</sub>
	Chromium (hexavalent)	0.1	MCL
	Chromium (total)	0.1	MCL
SWMU 2	<b>VOCs</b>		
	1,2-Dichloroethane	0.005	MCL
	PCE	0.005	MCL
SWMU 5-04 a and b	TCE	0.005	MCL
	cis-1,2-Dichloroethene	0.07	MCL
	trans-1,2-Dichloroethene	0.10	MCL
SWMU 5-05	Vinyl Chloride	0.002	MCL
	<b>High Explosives</b>		
SWMU 5-12a	2-Amino-4,6-dinitrotoluene	0.0012	GW-Res <sub>NC Adj</sub>
	4-Amino-2,6-dinitrotoluene	0.0012	GW-Res <sub>NC Adj</sub>
SWMU 5-13c	1,3-Dinitrobenzene	0.0037	GW-Res <sub>C</sub>
	2,4-Dinitrotoluene	0.001	PQL
SWMU 122 a and b	2,6-Dinitrotoluene	0.001	PQL
	HMX	0.36	GW-Res <sub>NC Adj</sub>
SWMU 123	RDX	0.002	EPA Lifetime HA
	1,3,5-Trinitrobenzene	0.22	GW-Res <sub>NC Adj</sub>
SWMU 136	TNT	0.0036	GW-Res <sub>NC Adj</sub>
	MNX	0.002	EPA Lifetime HA for RDX
Unassigned 12-5	DNX	0.002	EPA Lifetime HA for RDX
	TNX	0.002	EPA Lifetime HA for RDX
Concrete Sump	<b>Perched Miscellaneous and North Area Indicator List</b>		
	<b>Metals</b>		
	Boron	7.3	GW-Res <sub>NC</sub>
	<b>VOCs</b>		
	1,2-Dichloroethane	0.005	MCL
SWMU 6	Chloroform	0.08	MCL for Trihalomethanes (including Chloroform)
	PCE	0.005	MCL

Unit Name	Hazardous Constituents	Groundwater Protection Standard (mg/L)	Basis of GWPS
	TCE	0.005	MCL
	<i>cis</i> -1,2-Dichloroethene	0.07	MCL
	<i>trans</i> -1,2-Dichloroethene	0.10	MCL
	Vinyl Chloride	0.002	MCL
<b>High Explosives</b>			
	2-Amino-4,6-dinitrotoluene	0.0012	GW-Res <sub>NC Adj</sub>
	4-Amino-2,6-dinitrotoluene	0.0012	GW-Res <sub>NC Adj</sub>
	1,3-Dinitrobenzene	0.0037	GW-Res <sub>C</sub>
	2,4-Dinitrotoluene	0.001	PQL
	2,6-Dinitrotoluene	0.001	PQL
	HMX	0.36	GW-Res <sub>NC Adj</sub>
	RDX	0.002	EPA Lifetime HA
	MXN	0.002	EPA Lifetime HA for RDX
	DNX	0.002	EPA Lifetime HA for RDX
	TNX	0.002	EPA Lifetime HA for RDX
	1,3,5-Trinitrobenzene	0.22	GW-Res <sub>NC Adj</sub>
	TNT	0.0036	GW-Res <sub>NC Adj</sub>
<b>Ogallala Southeast Area Indicator List</b>			
<b>Metals</b>			
	Boron	7.3	GW-Res <sub>NC</sub>
	Chromium (hexavalent)	0.1	MCL
	Chromium (total)	0.1	MCL
<b>VOCs</b>			
	1,2-Dichloroethane	0.005	MCL
	Chloroform	0.08	MCL for Trihalomethanes (including Chloroform)
	PCE	0.005	MCL
	TCE	0.005	MCL
	<i>cis</i> -1,2-Dichloroethene	0.07	MCL
	<i>trans</i> -1,2-Dichloroethene	0.10	MCL
	Vinyl Chloride	0.002	MCL
<b>High Explosives</b>			
	2-Amino-4,6-dinitrotoluene	0.0012	GW-Res <sub>NC Adj</sub>
	4-Amino-2,6-dinitrotoluene	0.0012	GW-Res <sub>NC Adj</sub>
	1,3-Dinitrobenzene	0.0037	GW-Res <sub>C</sub>
	2,4-Dinitrotoluene	0.001	PQL
	2,6-Dinitrotoluene	0.001	PQL
	HMX	0.36	GW-Res <sub>NC Adj</sub>
	RDX	0.002	EPA Lifetime HA
	MXN	0.002	EPA Lifetime HA for RDX
	DNX	0.002	EPA Lifetime HA for RDX
	TNX	0.002	EPA Lifetime HA for RDX
	1,3,5-Trinitrobenzene	0.22	GW-Res <sub>NC Adj</sub>
	TNT	0.0036	GW-Res <sub>NC Adj</sub>
<b>Ogallala Northwest Area Indicator List</b>			

Unit Name	Hazardous Constituents	Groundwater Protection Standard (mg/L)	Basis of GWPS
	<b><i>Metals</i></b>		
	Boron	7.3	GW-Res <sub>NC</sub>
	<b><i>VOCs</i></b>		
	1,2-Dichloroethane	0.005	MCL
	Chloroform	0.08	MCL for Trihalomethanes (including Chloroform)
	PCE	0.005	MCL
	TCE	0.005	MCL
	<i>cis</i> -1,2-Dichloroethene	0.07	MCL
	<i>trans</i> -1,2-Dichloroethene	0.10	MCL
	Vinyl Chloride	0.002	MCL
	<b><i>HighExplosives</i></b>		
	2-Amino-4,6-dinitrotoluene	0.0012	GW-Res <sub>NC Adj</sub>
	4-Amino-2,6-dinitrotoluene	0.0012	GW-Res <sub>NC Adj</sub>
	1,3-Dinitrobenzene	0.0037	GW-Res <sub>C</sub>
	2,4-Dinitrotoluene	0.001	PQL
	2,6-Dinitrotoluene	0.001	PQL
	HMX	0.36	GW-Res <sub>NC Adj</sub>
	RDX	0.002	EPA Lifetime HA
	MNX	0.002	EPA Lifetime HA for RDX
	DNX	0.002	EPA Lifetime HA for RDX
	TNX	0.002	EPA Lifetime HA for RDX
	1,3,5-Trinitrobenzene	0.22	GW-Res <sub>NC Adj</sub>
	TNT	0.0036	GW-Res <sub>NC Adj</sub>
	<b><i>Miscellaneous</i></b>		
	Perchlorate	0.026	GW-Res <sub>NC</sub>

**Foot Note:**

See CP-50284 Attachment A well maps depicting indicator areas for perched and Ogallala monitoring wells.

GW-Res—TCEQ Risk Reduction Standard No. 2 Groundwater MSC for Residential Use

HA – EPA Health Advisory

MCL—EPA Maximum Contaminant Level

PQL—Practical Quantitation Limit

C—Carcinogenic

NC—Noncarcinogenic

Adj—Value adjusted for a cumulative hazard index or quotient.

The following GWPS designations from the Risk Reduction Rule and EPA were used:

GW-Res      Alternate Concentration Limit pursuant to 30 TAC '335.160(b) based upon the Groundwater Medium-Specific Concentration (MSC), Residential {...or Industrial...} Risk Reduction Standard No. 2 {...or No. 3} specified in 30 TAC '335 Subchapter S.

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- HA EPA Health Advisory. Health Advisories are guidance values based on non-cancer health effects for different durations of exposure (e.g., one-day, ten-day, longer-term, and lifetime).
- MCL Alternate Concentration Limit pursuant to 30 TAC '335.160(b) based upon the Groundwater Maximum Contaminant Level (MCL) specified in 40 CFR Part 141, National Primary Drinking Water Regulations Subparts B and G.
- PQL Non-detectable at Practical Quantitation Limit (PQL) as determined by the analytical methods of the United States Environmental Protection Agency's publication SW-846 Test Methods for Evaluating Solid Waste, most recent edition, and as listed in the July 8, 1987 edition of the Federal Register and later editions. PQL is indicated in parentheses. PQL is the lowest concentrations of analytes in groundwaters that can be reliably determined within specified limits of precision and accuracy by the indicated methods under routine laboratory operating conditions across all Pantex laboratories.
- MSC ACL pursuant to 30 TAC Section 335.160(b) based upon the Groundwater Medium-Specific Concentration, Residential {...or Industrial...} Risk Reduction Standard No. 2 {...or No. 3} specified in 30 TAC Section 335 Subchapter S.  
MCL ACL pursuant to 30 TAC Section 335.160(b) based upon the Groundwater Maximum Contaminant Level specified in 40 CFR Part 141, National Primary Drinking Water Regulations Subparts B and G.
- ACL Alternate concentration limit pursuant to 30 TAC Section 335.160(b) based upon the Action Level specified in 40 CFR Part 141, National Primary Drinking Water Regulations Subpart I.
- BKG Background from approved Risk Reduction Rule Guidance to the Pantex RFIR (BWXT Pantex and SAIC, 2002, Updated March 2004).

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

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

**CP Table V: Designation of Wells**

Point of Compliance Wells

Burning Ground

PTX01-1001  
PTX01-1008  
PTX01-1010

Playa 1

PTX06-1023  
PTX06-1050  
PTX07-1002

Playa 1, Zone 11

PTX07-1P02

Zone 11

PTX06-1155  
PTX06-1156  
PTX-06-1126  
PTX-06-1127

Southeast

PTX-06-1031  
PTX-06-1034  
PTX-06-1042  
PTX-06-1045  
PTX-06-1046  
PTX-06-1052  
PTX-06-1056  
PTX-06-1103  
PTX-06-1130  
PTX-06-1146  
PTX-06-1153  
PTX-06-1154

Point of Exposure Wells

Burning Ground

PTX01-1012

Northern Plant Boundary

PTX01-1013  
PTX06-1064  
PTX06-1068  
PTX06-1144

Southeast

PTX06-1138  
PTX06-1139

North of Playa 1

PTX06-1143

Alternate Point of Exposure Wells

None



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Background Wells

None

Notes:

The above wells are shown in Attachment A.

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

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Continuation Sheet 1 of 1

**CP Table VI: Compliance Period for RCRA-Regulated Units (RESERVED)**

**CP Table VII: Reporting Requirements**

<b>Item</b>	<b>Program</b>	<b>Reporting Frequency</b>	<b>Requirements</b>
1.	All programs	Annually by June 30	Each report shall be certified by a qualified engineer and/or geologist.
2.	Corrective Action	Annual June 30	A table of all modifications and amendments made to this Compliance Plan with their corresponding approval dates by the executive director or the Commission and a brief description of each action;
3.	Corrective Action	Annual June 30	A summary of any activity within an area subject to institutional control.
4.	Corrective Action	Annual June 30	Tabulation of well casing elevations in accordance with Attachment B;
5.	Corrective Action	Annual June 30	Certification and well installation diagram for any new well installation or replacement and certification for any well plugging and abandonment;
6.	Corrective Action	Annual June 30	Recommendation for any changes to the program;
7.	Corrective Action	Annual June 30	Any other items requested by the executive director;
8.	Corrective Action	Annual June 30	Water table maps shall be prepared from the groundwater data collected pursuant to Provision G and shall be evaluated by the Permittee with regard to the following parameters: a. Development and maintenance of an area of capture during operation of the system; b. Direction and gradient of groundwater flow; c. Effectiveness of hydrodynamic control of the contaminated zone during operation; and, d. Estimation of the rate and direction of groundwater contamination migration.

Item	Program	Reporting Frequency	Requirements
9.	Corrective Action	Annual June 30	<p>The Permittee shall submit a report to each recipient listed in Provision XI.J.3, which includes the information in items 3 through 26 determined since the previously submitted report, if those items are applicable.</p> <p>If both Corrective Action and Compliance Monitoring <b>[Reserved]</b> Programs are authorized, then the June 30th report shall contain information required for both programs.</p>
10.	Corrective Action	Annual June 30	<p>The Corrective Action System(s) authorized under Provision XI.B in operation during the reporting period and a narrative summary of the evaluations made in accordance with Provisions XI.E, XI.F, and XI.G. of this Compliance Plan for the preceding reporting period. The reporting periods shall be annual, January 1 through December 31, for Corrective Action Monitoring, unless an alternative schedule is approved by the Commission. The period for Compliance Monitoring <b>[Reserved]</b> shall be based on the calendar year;</p>
11.	Corrective Action	Annual June 30	<p>The method(s) utilized for management of recovered/purged groundwater shall be identified in accordance with Provision XI.B.8. The Permittee shall maintain this list as part of the facility operating record and make it available for inspection upon request.</p>
12.	Corrective Action	Annual June 30	<p>An updated table and map of all monitoring and Corrective Action System wells. The wells to be sampled shall be those wells proposed in the Compliance Plan Application referenced in Provision XI.A.7 and any changes subsequently approved by the executive director pursuant to Provision XI.B.3. Provide in chronological order, a list of those wells which have been added to, or deleted from, the groundwater monitoring and remediation systems since original issuance of the Compliance Plan. Include the date of the Commissions approval for each entry;</p>
13.	Corrective Action	Annual June 30	<p>The results of the chemical analyses, submitted in a tabulated format acceptable to the executive director which clearly indicates each parameter that exceeds the Groundwater Protection Standard (GWPS). Copies of the original laboratory report for chemical analyses showing detection limits and quality control and quality assurance data shall be provided if requested by the executive director;</p>
14.	Corrective Action	Annual June 30	<p>Tabulation of all water level elevations required in Provision XI.F.3.d.1. depth to water measurements, and total depth of well measurements collected since the data that was submitted in the previous monitoring report;</p>

<b>Item</b>	<b>Program</b>	<b>Reporting Frequency</b>	<b>Requirements</b>
15.	Corrective Action	Annual June 30	Potentiometric surface maps showing the elevation of the water table at the time of sampling, delineation of the radius of influence of the Corrective Action System, and the direction of groundwater flow gradients outside any radius of influence;
16.	Corrective Action	Annual June 30	Tabulation of all data evaluation results pursuant to Provision XI.F.4. and status of each well with regard to compliance with the Corrective Action objectives and compliance with the GWPS;
17.	Corrective Action	Annual June 30	An updated summary as required by CP Table VIII;
18.	Corrective Action	Annual June 30	Summary of any changes made to the monitoring/corrective action program and a summary of well inspections, repairs, and any operational difficulties;
19.	Corrective Action	Annual June 30	A notation of the presence or absence of non-aqueous phase liquids (NAPLs), both light and dense phases, in each well during each sampling event since the last event covered in the previous monitoring report and tabulation of depth and thickness of NAPLs, if detected;
20.	Corrective Action only	Annual June 30 Quarterly 90 days after end of quarter	Quarterly tabulations of quantities of recovered groundwater and NAPLs, and graphs of monthly recorded flow rates versus time for the Recovery Wells during each reporting period. A narrative summary describing and evaluating the NAPL recovery program shall also be submitted;
21.	Corrective Action only	Annual June 30 Quarterly 90 days after end of quarter	Tabulation of the total contaminant mass recovered from each recovery system for each reporting period;
22.	Corrective Action only	Annual	Maps of the contaminated area where GWPSs are exceeded depicting concentrations of CP Table IIIA constituents and any newly detected CP Table III constituents as isopleth contours or discrete concentrations if isopleth contours cannot be inferred. Areas where concentrations of constituents exceed the GWPS should be clearly delineated. Depict the boundary of the plume management zone (PMZ), if applicable;
23.	Corrective Action only	Annual	Maps and tables indicating the extent and thickness of the NAPLs both light and dense phases, if detected;

Item	Program	Reporting Frequency	Requirements
24.	Corrective Action only	Quarterly 90 days after end of quarter	<p>Corrective Measures Implementation (CMI) Progress Report or Response Action Effectiveness Report or Response Action Completion Report to be submitted as a section of the Compliance Plan report in accordance with Provision XI.H.6., if necessary. The Permittee will include a narrative summary of the status of the approved final corrective measures conducted in accordance with the approved CMI Workplan or RAP, and that the requirements of Provision XI.H.7. are being met. The report shall include the following information:</p> <ul style="list-style-type: none"> <li>a. Information required for Item 20 of this table.</li> <li>b. Information required for Item 21 of this table.</li> <li>c. Trend charts of target COCs and degradation products at downgradient performance monitoring locations for the in-situ bioremediation systems.</li> <li>d. Summary of unexpected conditions, if found, at monitoring wells.</li> </ul>
25.	Corrective Action only	Annual	<p>The Permittee will include a narrative summary of the status of each Solid Waste Management Unit (SWMU) and/or Area of Concern (AOC) subject to the requirements of Provision XI.H. and ICMs Program for a SWMU and/or AOC which documents that the objectives of Provision XI.H.8.b. are being achieved. This summary shall be included as a section of the Compliance Plan annual report.</p>
26.	Corrective Action only	5-Year Review	<p>Conduct 5-year review to be consistent with CERCLA §121(c) and the NCP (40 CFR Part 300.430(f)(4)(ii)) and current EPA guidance. The 5-year review will be conducted to evaluate the need to adjust corrective actions and associated monitoring.</p>

**CP Table VIII: Compliance Schedule**

<b>Item</b>	<b>Compliance Schedule</b> (from the date of issuance of the Compliance Plan unless otherwise specified)	<b>Regulatory Citation</b>	<b>Requirement</b>
A.	60	Compliance Plan	Submit to the Executive Director a schedule summarizing all activities required by the Compliance Plan in the annual progress report. The schedule shall list the starting dates of all routine activities. The permittee shall include an updated schedule in the annual groundwater monitoring report required by <u>Provision XI.G.3</u> . 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 is to be completed or submitted (if this date can be determined.)

## Legal Description of Facility

### Description of U.S. DOE-Pantex Plant, Amarillo, Texas

A tract of land consisting of the south 437.20 acres of the M.F. Write Survey No. 7; all of Sections 32, 33, 34, 36, 37, 38, 49, 50, 51, 54 and 55, J.H. Gibson Survey, Block M-4; that portion of the Lyman Brewer Survey No. 6½ and portions of Sections 31, 39, 48 and 56, J.H. Gibson Survey, Block M-4 lying east of State Farm Highway No. 683 and north of the following described line: Beginning at a point on the east line of said Section 31, said point being 2,666.5' north of the SE corner thereof; thence S89° 14' W, 11,881.5'; thence S 51° 33' W, 1,985.3'; thence N 89°; thence N 0° 5' W, 7,000.0' along the west line of Sections 48 and 2,887.0'; thence S89° 23' W, 2,987.0' to a point on the east R.O.W. line of State Farm Highway No. 683.

A tract of land consisting of 1,526 acres of J.H. Gibson Survey, Block M-4, Sections 21 and 22 lying east of State Farm Highway No. 2373.

Those described contain 17,559 acres, more or less, of land, situated in Carson County, TX, and subject to all assessments or restrictions pertaining thereto.

### Pantex Lake

A tract or parcel of land in B.S. & F. Survey, Block T, Sections 56, 57, 58 and 64 described as follows:

The east 900 feet of the south ½ of Section 56, all of Section 57, the west 3,200 feet of the south 2,400 feet of Section 58, and the west 3,200 feet of the north 2,800 feet of Section 64, containing 1,077 acres, more or less.

### Leased Land

See Tracts I, II and III

### **Texas Tech University Research Farm - Pantex Plant Description: Tract No. 1**

A 3,019.9 acre tract of land situated north of the A.T. & S.F. R.R. and west of FM Hwy. 2373 in the western portion of Carson County, Texas, said tract being that portion of section 30 north of the A.T. & S.F. R.R.; approximately the south one-halves of Sections 31 and 30; those portions of Sections 40, 41 and 46 north of A.T. & S.F. R.R.; all of Section 47 and a portion of the south one-half of Section 48 all in block M4, J.H. Gibson Survey, Carson County, Texas, said tract is described by metes and bounds to-wit:

BEGINNING at a concrete R.O.W. monument in the west R.O.W. line of FM Hwy. 2373, whence the southeast corner of said Section 31 bears S 00°06' 53"E, 40.12 ft. and N 89° 53'07"E, 59.22 ft.;

THENCE S 00°06'53"E, along said west R.O.W. line, 3091.06 ft. to a 3-1/4 inch aluminum cap stamped X 30944.429, Y 3456.180 marking the southeast corner of this tract, said point being the intersection of said west R.O.W. line of FM Hwy. 2373 and the northwesterly R.O.W. line of the A.T. & S.F.R.R.;

THENCE S 69°23'W, along said railroad R.O.W. LINE, 1519.64 ft. to a railroad R.O.W. monument (railroad rail set vertical);

THENCE N 20°37'W, 25.00 ft. to a similar railroad R.O.W. monument;



THENCE S 69°23'W, along said railroad R.O.W. line, 1232.00 ft to a similar railroad monument;

THENCE S 20°37'E, 20.00 ft. to a similar railroad R.O.W. monument;

THENCE S 69°23'W, along said railroad R.O.W. LINE, 3793.60 ft. to a 1/2 inch iron rod marking a point of intersection in said railroad R.O.W. line;

THENCE N 89°15'E, 14.71 ft. to a 1/2 inch iron rod marking a point of intersection in said railroad R.O.W. line;

THENCE S 69°23'W, along said railroad R.O.W. LINE, 6088.24 ft to a 1/2 inch iron rod marking a point of intersection in said railroad right-of-way line;

Thence S 20°37'E, 25.00 ft. to a 1/2 inch iron rod marking a point of intersection in said railroad R.O.W. line;

Thence S 69°23'W, along said railroad right-of-way line 4249.65 ft. to a 3-1/4 inch aluminum cap stamped X 15164.294, Y-2507.131 marking the intersection of said railroad R.O.W. line and the west line of said Section 46;

THENCE N 00°17'35"W, along the west lines of said Sections 46, 47 and 48, 10,261.44 ft. to a 3-1/4 inch aluminum cap, set at the base of a steel post, stamped X 15,111.806, Y 7754.177 marking the northwest corner of this tract;

THENCE S 89°36'22"E, along a fence line, 2446.55 ft. to a 3-1/4 inch aluminum cap, set at the base of a steel post, stamped X 17,558.301, Y 7737.354 marking a point of intersection in the north line of this tract;

THENCE N 51°20'46"E, along a fence line, 1984.96 ft. to a 3-1/4 inch aluminum cap, stamped X 19,108.421, Y 8977.191, set between 2 steel posts to replace a 1-inch iron pipe found in place marking a point of intersection in the north line of this tract;

THENCE N 89°00'42"E, along a fence line, 11,820.54 ft. to a 3-1/4 inch aluminum cap stamped X 30,927.200, Y 9181.060, set in the west R.O.W. line of FM Hwy. 2373 marking the northeast corner of this tract;

THENCE S 00°14'25"E, along said west R.O.W. line, 2633.84 ft. to the place of beginning and containing 3,019.9 acres of land more or less.

**Texas Tech University Research Farm - Pantex Plant**  
**Description: Tract No. 2**

A 147.2 acre tract of land situated in Section 56, Block M4, J.H. Gibson Survey, Carson County, Texas, described by metes and bounds to-wit:

BEGINNING at a 3-1/4 inch aluminum cap stamped X 15,091.644, Y 12,692.601 set in a fence line along the east line of said section 56, marking the southeast corner of this tract, whence a 3-1/4 inch aluminum cap stamped X 15,111.806, Y 7754.177, marking the northwest corner of Tract No. 1 (3,019.8969 acres) bears S 00° 14'02"E, 4038.48 ft.;

THENCE N 89°31'40"W, 4134.37 ft. to a 3-1/4 inch aluminum cap, stamped X 10,957.414, Y 12,726.675, set at the base of a steel post marking the southwest corner of this tract;

THENCE N 44°54'34"E, along a fence line, 2887.01 ft. to a 3-1/4 inch aluminum cap, stamped X 12,995.610, Y 14,771.323, set at the base of a steel post, marking the northwest corner of this tract;

THENCE S 89°31'40"E, along a fence line, 2087.69 ft. to a 3-1/4 inch aluminum cap, stamped X 15,083.229, Y 14,754.117, set at the base of a steel corner post, marking the northeast corner of this tract;

THENCE S 00°14'02"E, along a fence line and the east line of said Section 56, 2061.49 ft. to the place of beginning and containing 147.2 acres of land more or less.

**Description: Texas Tech Tract III - Excluding Texas Tech Property Manager Land, Pantex Railroad Right-of-Way and Texas Tech Killgore Beef Cattle Center**

**Part A (East of Pantex Railroad Right-of-Way)**

A 1,321.3 acre tract of land situated in Sections 56, 57, 58 and 59, Block M-4, J.H. Gibson Survey, Carson County, Texas, and being more particularly described by metes and bounds, to-wit:

BEGINNING at a 1/2 inch iron rod marking the southeast corner of this tract, said iron rod located in the east line of said Section 59 and in the northeasterly right-of-way line of the Pantex railroad, being in a non-tangent curve to the right;

THENCE Northwesterly along said northeasterly railroad right-of-way line and along said curve to the right, whose center bears north 1°01' 51" east 915.10 feet, having a central angle of 60°38' 43", an arc distance of 968.60 feet to an aluminum disc set in concrete marking a point of tangency;

THENCE North 28°19' 26" West, along said northeasterly railroad right-of-way line, 8,926.85 feet to an aluminum disc set in concrete marking the beginning of a curve to the right;

THENCE Northwesterly, along said northeasterly railroad right-of-way line and along said curve to the right, whose center bears north 61°40' 34" east 1,382.40 feet, having a central angle of 28°18' 36", an arc distance of 683.05 feet to an aluminum disc set in concrete marking a point of tangency;

THENCE North 0°00' 50" West, along the easterly railroad right-of-way line, 4,605.81 feet to a 1/2 inch iron rod marking the beginning of a curve to the right;

THENCE Northerly, along said easterly railroad right-of-way line and along said curve to the right, whose center bears north 89°59' 10" east 904.93 feet, having a central angle of 14°26'53" an arc distance of 228.19 feet to 1/2 inch iron rod marking a point of tangency;

THENCE North 14°26' 03" East, along said easterly railroad right-of-way line, 109.52 feet to a 1/2 inch iron rod marking the beginning of a curve to the left;

THENCE Northerly, along said easterly railroad right-of-way line and along said curve to the left, whose center bears north 75°33' 57" West 1,004.93 feet, having a central angle of 14°42'38", an arc distance of 258.01 feet to a 1/2 inch iron rod marking a point of tangency;

THENCE North 0°16' 35" West, along said easterly railroad right-of-way line, 53.81 feet to a 1/2 inch iron rod marking the beginning of a curve to the right;

THENCE Northeasterly, along said easterly railroad right-of-way line and along said curve to the right, whose center bears south 89°43'25" East 904.93 feet, having a central angle of 44°55'33", an arc distance of 709.56 feet to an aluminum disc set in concrete marking a point of tangency;

THENCE North 44°38' 58" East, along the southeasterly railroad right-of-way line, 398.57 feet to an aluminum disc set in concrete in the south boundary of the Pantex property marking the most northerly northwest corner of this tract;

THENCE South 89°33' 38" East, along said south boundary of Pantex, 354.55 feet to an aluminum disc set in concrete marking a point in said south boundary of Pantex:

THENCE South 89°36' 38" East, along said south boundary of Pantex, 4,128.42 feet to an aluminum disc set in concrete marking an interior corner of said Pantex property and the northeast corner of this tract, said disc located in the east line of said Section 56;

THENCE South 0°18' 06" East, along the east line of said Sections 56, 57, 58 and 59, 15,134.56 feet to the southeast and BEGINNING corner of this tract, and CONTAINING an area of 1,321.3 acres of land, more or less.

### **Tract III, Part B (West of Pantex Railroad Right-of-Way)**

A 1,311.7 acre tract of land situated in Sections 56, 57, 58, 59 and 60, Block M-4, J.H. Gibson Survey, W.P. Snodgrass Survey, L. Brewer Survey 6 and L. Brewer Survey 6 2, all located in Carson County, Texas, and being more particularly described by metes and bounds to-wit:

BEGINNING at a ½ inch iron rod with a red plastic cap stamped AKelley-RPS-1583" (K-Cap) in the east right-of-way line of FM 683 and in the northerly right-of-way line of the A.T.& S.F. Railway;

THENCE North 0°04' 23" West, along said east FM 683 right-of-way line, 2,482.65 feet to a ½ inch iron rod with a yellow plastic cap stamped AThomas RPS 2203" (T&I Cap) marking the southwest corner of an adjacent 6.139 acre tract of land (Killgore Beef Cattle Center and Bull Barn Shed area);

THENCE North 75°12' 09" East, along the southerly boundary of said 6.139 acre tract of land, 329.07 feet to a ½ inch iron rod with a T&I cap;

THENCE North 74°52' 34" East, along the southerly boundary of said 6.139 acre tract of land, 641.50 feet to a ½ inch iron rod with a T&I cap marking the southeast corner of said 6.139 acre tract of land;

THENCE North 15°07' 26" West, along the westerly boundary of said 6.139 acre tract of land, 217.40 feet to a ½ inch iron rod with a T&I Cap marking the northeast corner of said 6.139 acre tract of land;

THENCE South 82°58' 38" West, along the northerly boundary of said 6.139 acre tract of land, 575.34 feet to a ½ inch iron rod with a T&I cap.

THENCE South 89°55' 37" West, along the northerly boundary of said 6.139 acre tract of land, 310.19 feet to a ½ inch iron rod with a T&I Cap in said east FM 683 right-of-way line marking the northwest corner of said 6.139 acre tract of land.

THENCE North 0°04' 23" West, along said east FM 683 right-of-way line, 2,016.16 feet to a ½ inch iron rod with a K-Cap marking the most westerly southwest corner of an adjacent 4.092 acre tract of land (Texas Tech property manager land);

THENCE North 88°42' 46" East, along the southerly boundary of said 4.092 acre tract of land, 330.25 feet to a ½ inch iron rod with a K-Cap;

THENCE North  $81^{\circ}01' 48''$  East, along the southerly boundary of said 4.092 acre tract of land, 144.55 feet to a  $\frac{1}{2}$  inch iron rod with a K-Cap.

THENCE North  $72^{\circ}22' 01''$  East, along the southerly boundary of said 4.092 acre tract of land, 229.80 feet to a  $\frac{1}{2}$  inch iron rod with a K-Cap;

THENCE South  $75^{\circ}48' 31''$  East, along the southerly boundary of said 4.092 acre tract of land, 127.76 feet to a  $\frac{1}{2}$  inch iron rod with a K-Cap;

THENCE South  $71^{\circ}06' 32''$  East, along the southerly boundary of said 4.092 acre tract of land, 261.84 feet to a  $\frac{1}{2}$  inch iron rod with a K-Cap;

THENCE North  $12^{\circ}50' 51''$  West, along the easterly boundary of said 4.092 acre tract of land, 270.94 feet to a  $\frac{1}{2}$  inch iron rod with a K-Cap;

THENCE South  $89^{\circ}01' 45''$  West, along the easterly boundary of said 4.092 acre tract of land, 46.78 feet to a  $\frac{1}{2}$  inch iron rod with a K-Cap;

THENCE North  $68^{\circ}29' 57''$  West, along the easterly boundary of said 4.092 acre tract of land, 94.58 feet to a  $\frac{1}{2}$  inch iron rod with a K-Cap;

THENCE North  $24^{\circ}43' 51''$  West, along the easterly boundary of said 4.092 acre tract of land, 90.96 feet to a  $\frac{1}{2}$  inch iron rod with a K-Cap;

THENCE North  $8^{\circ}06' 28''$  East, along the easterly boundary of said 4.092 acre tract of land, 161.63 feet to a  $\frac{1}{2}$  inch iron rod with a K-Cap;

THENCE North  $67^{\circ}19' 50''$  West, along the northerly boundary of said 4.092 acre tract of land, 247.72 feet to a  $\frac{1}{2}$  inch iron rod with a K-Cap;

THENCE South  $6^{\circ}29' 18''$  West, along the northerly boundary of said 4.092 acre tract of land, 305.04 feet to a  $\frac{1}{2}$  inch iron rod with a K-Cap;

THENCE South  $25^{\circ}09' 55''$  East, along the northerly boundary of said 4.092 acre tract of land, 203.96 feet to a  $\frac{1}{2}$  inch iron rod with a K-Cap;

THENCE South  $72^{\circ}44' 42''$  West, along the northerly boundary of said 4.092 acre tract of land, 222.15 feet to a  $\frac{1}{2}$  inch iron rod with a K-Cap;

THENCE South  $80^{\circ}33' 47''$  West, along the northerly boundary of said 4.092 acre tract of land, 139.06 feet to a  $\frac{1}{2}$  inch iron rod with a K-Cap;

THENCE South  $89^{\circ}04' 22''$  West, along the northerly boundary of said 4.092 acre tract of land, 127.71 feet to a  $\frac{1}{2}$  inch iron rod with a K-Cap in said east FM 683 right-of-way line marking the most westerly northwest corner of said 4.092 acre tract of land;

THENCE North  $0^{\circ}04' 23''$  West, along said east FM 683 right-of-way line, 12,896.17 feet to an aluminum disc set in concrete marking a corner of Pantex property and the northwest corner of this tract;

THENCE South  $89^{\circ}33' 38''$  East, along the south boundary of said Pantex property, 2,442.22 feet to an aluminum disc set in concrete in the northwesterly right-of-way line of the Pantex railroad;

THENCE South  $44^{\circ}38' 58''$  West, along said northwesterly railroad right-of-way line, 295.01 feet to an aluminum disc set in concrete marking the beginning of a curve to the left;

THENCE Southwesterly, along said northwesterly railroad right-of-way line and along said curve to the left, whose center bears south  $45^{\circ}21' 02''$  east 1,323.24 feet, having a central angle of  $44^{\circ}39' 48''$ , an arc distance of 1,031.50 feet to a  $\frac{1}{2}$  inch iron rod marking a point of tangency;

THENCE South  $0^{\circ}00' 50''$  East, along the westerly railroad right-of-way line, 5,031.66 feet to an aluminum disc set in concrete marking the beginning of a curve to the left;

THENCE Southwesterly, along the westerly railroad right-of-way line and along said curve to the left, whose center bears north  $89^{\circ}59' 10''$  east 1,482.40 feet, having a central angle of  $28^{\circ}18' 36''$ , an arc distance of 732.46 feet to an aluminum disc set in concrete marking a point of tangency;

THENCE South  $28^{\circ}19' 26''$  East, along the westerly railroad right-of-way line, 8,756.66 feet to an aluminum disc set in concrete marking the beginning of a curve to the right;

THENCE Southwesterly, along the westerly railroad right-of-way line and along said curve to the right, whose center bears south  $61^{\circ}40' 34''$  west 791.03 feet, having a central angle of  $97^{\circ}43' 37''$ , an arc distance of 1,349.23 feet to a  $\frac{1}{2}$  inch iron rod with a K-Cap in the northerly right-of-way of the A.T.&S.F. Railway;

THENCE North  $20^{\circ}35' 49''$  West, along the northerly A.T. & S.F. Railway right-of-way, 25.00 feet to a  $\frac{1}{2}$  inch iron rod with a K-Cap;

THENCE South  $69^{\circ}24' 11''$  West, along the northerly A.T. & S.F. Railway right-of-way, 1,692.64 feet to a  $\frac{1}{2}$  inch iron rod with a K-Cap;

THENCE North  $20^{\circ}35' 49''$  West, along the northerly A.T. & S.F. Railway right-of-way line, 50.00 feet to a  $\frac{1}{2}$  inch iron rod with a K-Cap;

THENCE South  $69^{\circ}24' 11''$  West, along the northerly A.T. & S.F. Railway right-of-way line, 150.00 feet to a  $\frac{1}{2}$  inch iron rod with a K-Cap;

THENCE South  $20^{\circ}35' 49''$  East, along the northerly A.T. & S.F. Railway right-of-way line, 50.00 feet to a  $\frac{1}{2}$  inch iron rod with a K-Cap;

THENCE South  $69^{\circ}24' 11''$  West, along the northerly A.T. & S.F. Railway right-of-way line, 1,157.09 feet to a  $\frac{1}{2}$  inch iron rod with a K-Cap;

THENCE South  $20^{\circ}35' 49''$  East, along the northerly A.T. & S.F. Railway right-of-way line, 25.00 feet to a  $\frac{1}{2}$  inch iron rod with a K-Cap;

THENCE South  $69^{\circ}24' 11''$  West, along the northerly A.T. & S.F. Railway right-of-way line, 835.63 feet to a  $\frac{1}{2}$  inch iron rod with a K-Cap;

THENCE North  $89^{\circ}17' 11''$  East, along the northerly A.T.&S.F. Railway right-of-way line, 73.55 feet to a  $\frac{1}{2}$  inch iron rod with a K-Cap;

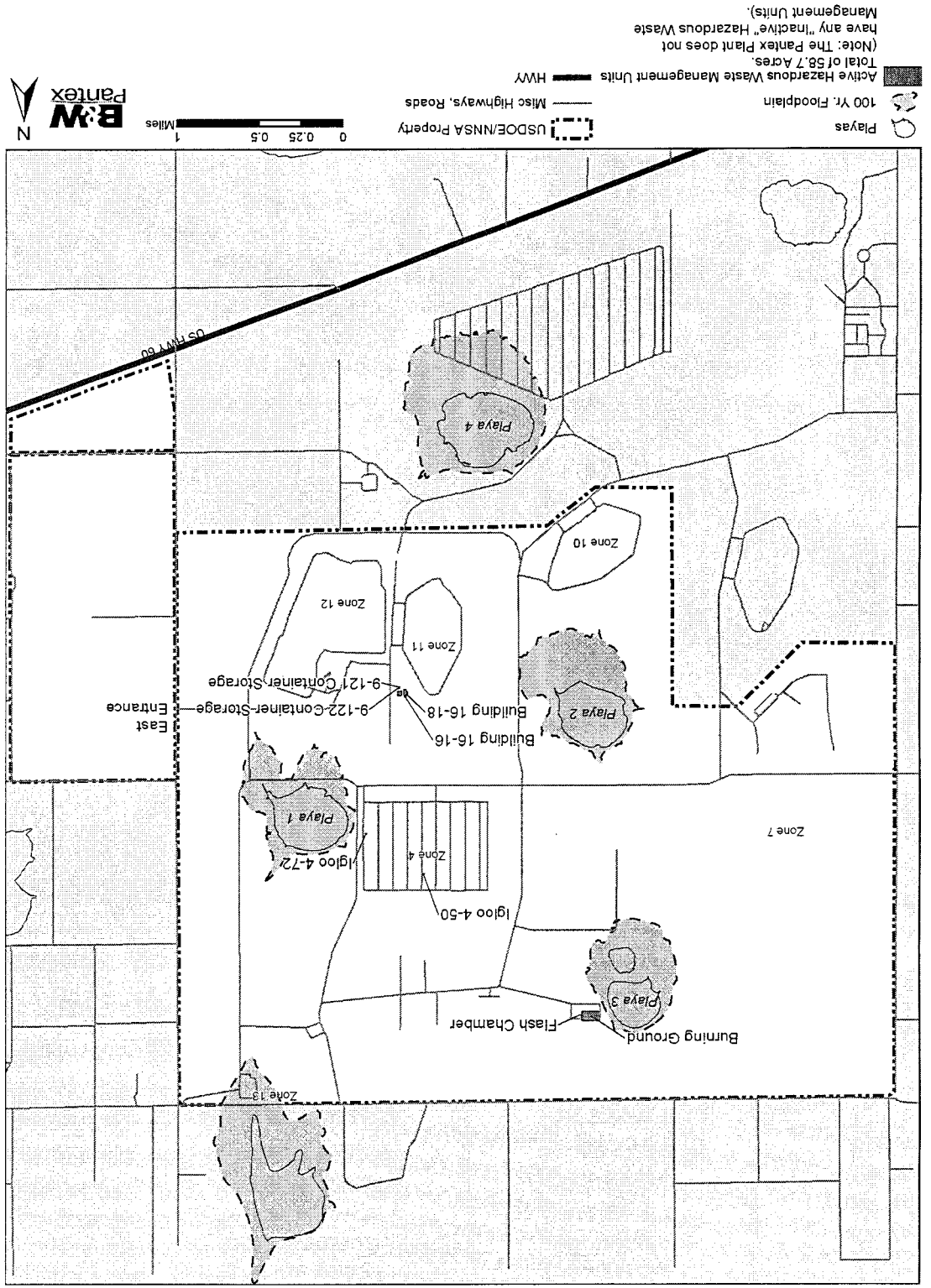
THENCE South  $69^{\circ}24' 11''$  West, along the northerly A.T.&S.F. Railway right-of-way line, 2,032.75 feet to a  $\frac{1}{2}$  inch iron rod with a K-Cap;

THENCE North  $20^{\circ}35' 49''$  West, along the northerly A.T.&S.F. Railway right-of-way line, 75.00 feet to a  $\frac{1}{2}$  inch iron rod with a K-Cap;

THENCE, South 69°24' 11" West, along the northerly A.T.&S.F. Railway right-of-way line, 320.18 feet to a 1/2 inch iron rod with a K-Cap in the east right-of-way line of FM 683, the BEGINNING corner of this tract, and CONTAINING an area of 1,311.7 acres of land, more or less.

Permit No. 50284  
Permittee: U.S. Department of Energy/  
National Nuclear Security Administration,  
Pantex Plant

**Attachment B Facility Map**



### 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  
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

- 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 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

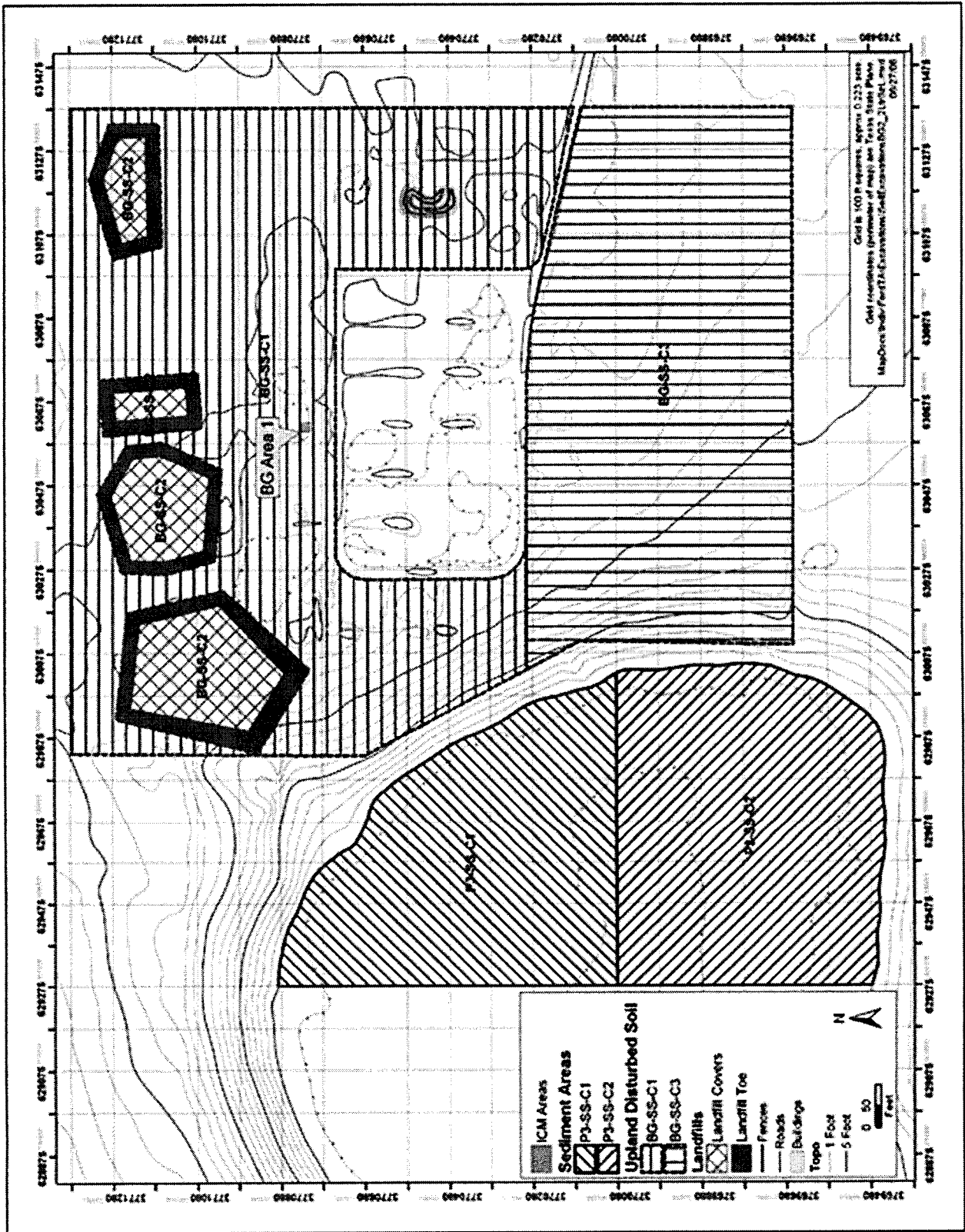
XII. Confidential Material

**Authorized Facility Units**

TCEQ Permit Unit No.	Unit Name	Unit Description	Capacity
1	11-7N Pad	Container Storage Unit. Partial closure accepted on 2/25/2005. No longer authorized to manage waste.	32,675 gallons
3	Igloo 4-50	Container storage unit, enclosed	25,134 gallons
12	Building 16-16	Container storage unit, enclosed	1,369 cu yds. (435 cu yds. Free liquids)
21	Burn Pan No. 1	Pan, carbon steel, covered when not in use. Built without secondary containment.	1500 pounds
24	High Explosive Burning Tray No. 1	Tray, carbon steel, covered when not in use. Built without secondary containment.	1500 pounds
25	High Explosive Burning Tray No. 2	Tray, carbon steel, covered when not in use. Built without secondary containment.	1500 pounds
26	High Explosive Burning Tray No. 3	Tray, carbon steel, covered when not in use. Built without secondary containment.	1500 pounds
27	High Explosive Burning Tray No. 4	Tray, carbon steel, covered when not in use. Built without secondary containment.	1500 pounds
28	High Explosive Burning Tray No. 5	Tray, carbon steel, covered when not in use. Built without secondary containment.	1500 pounds
29	High Explosive Burning Tray No. 6	Tray, carbon steel, covered when not in use. Built without secondary containment.	1500 pounds
30	Burn Pan No. 7	Pan, carbon steel, covered when not in use. Built without secondary containment.	1500 pounds
31	High Explosive Burning Tray No. 8	Tray, carbon steel, covered when not in use. Built without secondary containment.	1500 pounds
32	High Explosive Burning Tray No. 9	Tray, carbon steel, covered when not in use. Built without secondary containment.	1500 pounds

TCEQ Permit Unit No.	Unit Name	Unit Description	Capacity
43	Flash Chamber	Flash chamber. Built without secondary containment.	200 cubic yards
53	Igloo 4-72	Container storage unit, enclosed	16,500 gallons
55	Building T9-121	Container storage unit, enclosed	4,400 gallons
56	Building T9-122	Container storage unit, enclosed	4,400 gallons
57	Building 16-18 HWTPF	Treatment and processing facility, enclosed.	800 cubic yards

Attachment E  
 Map Indicating Soil and Sediment Monitoring Locations



## Attachment F

### Burning Ground Monitoring Statistical Procedure For Data Evaluation

1. Statistical Procedure for Background Determination

If all of the analytical results of a data set are less than the method detection limit (MDL) provided in Table VI.D.2.b, the MDL of Table VI.D.2.b or the practical quantitation limit (PQL), whichever is greater, will be used as the background value.

If the analytical results of less than 50 percent (%) of the background samples for a particular constituent are greater than the MDL, background will be set at the highest detected value, the MDL, or the PQL, whichever is greater.

If the analytical results of 50% or more of the background samples for a particular constituent are greater than the MDL, background will be calculated using a 95% ( $1 - \alpha = 0.95$ ) upper tolerance limit with 99.9% coverage ( $\rho = 0.999$  or  $\rho^{\text{th}}$  quintile of a distribution). The result of this calculation will represent the value that contains 99.9% of the population (percent coverage) with a 95% degree of confidence.

The Upper Tolerance Limit will be calculated using the following equation:

$$95\% \text{ upper Tolerance Limit} = \bar{x} + sK$$

Where:  $\bar{x}$  = population mean  
 $s$  = sample standard deviation  
 $K_{1-\alpha, \rho} = K$  (statistical table-value) at  $1 - \alpha = 0.95$ ,  $\rho = 0.999$ , at  $n$  ( $n$  = number of samples) (Gilbert, 1987, Appendix A, Table A3).

2. Statistical Procedure for Data Evaluation to Determine if an SSI in Monitoring Parameter Concentration has Occurred

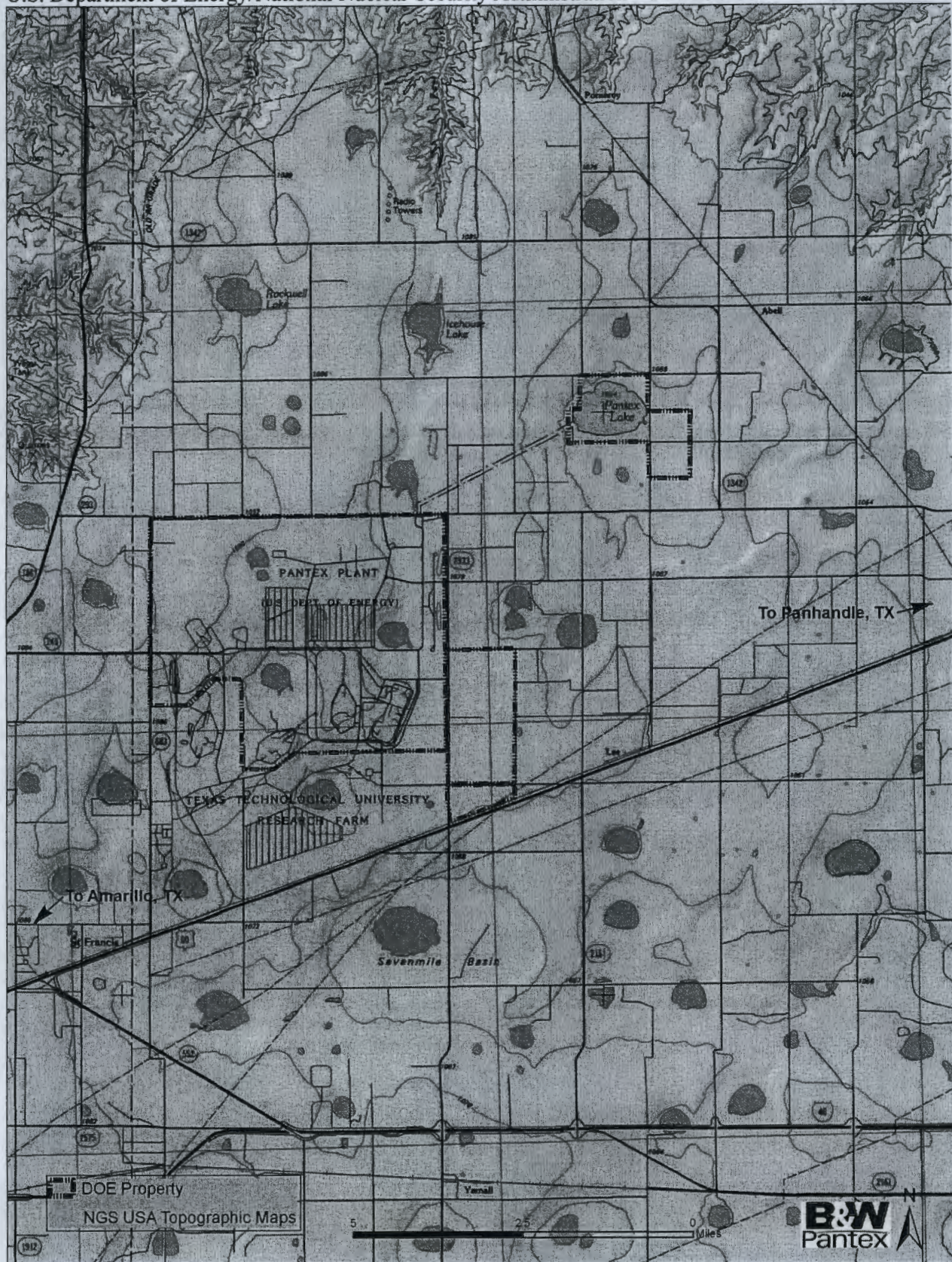
To determine that an SSI has occurred, compare the Monitored Parameter sample results to the background quality data.

**ATTACHMENT A – FACILITY SITE MAPS**

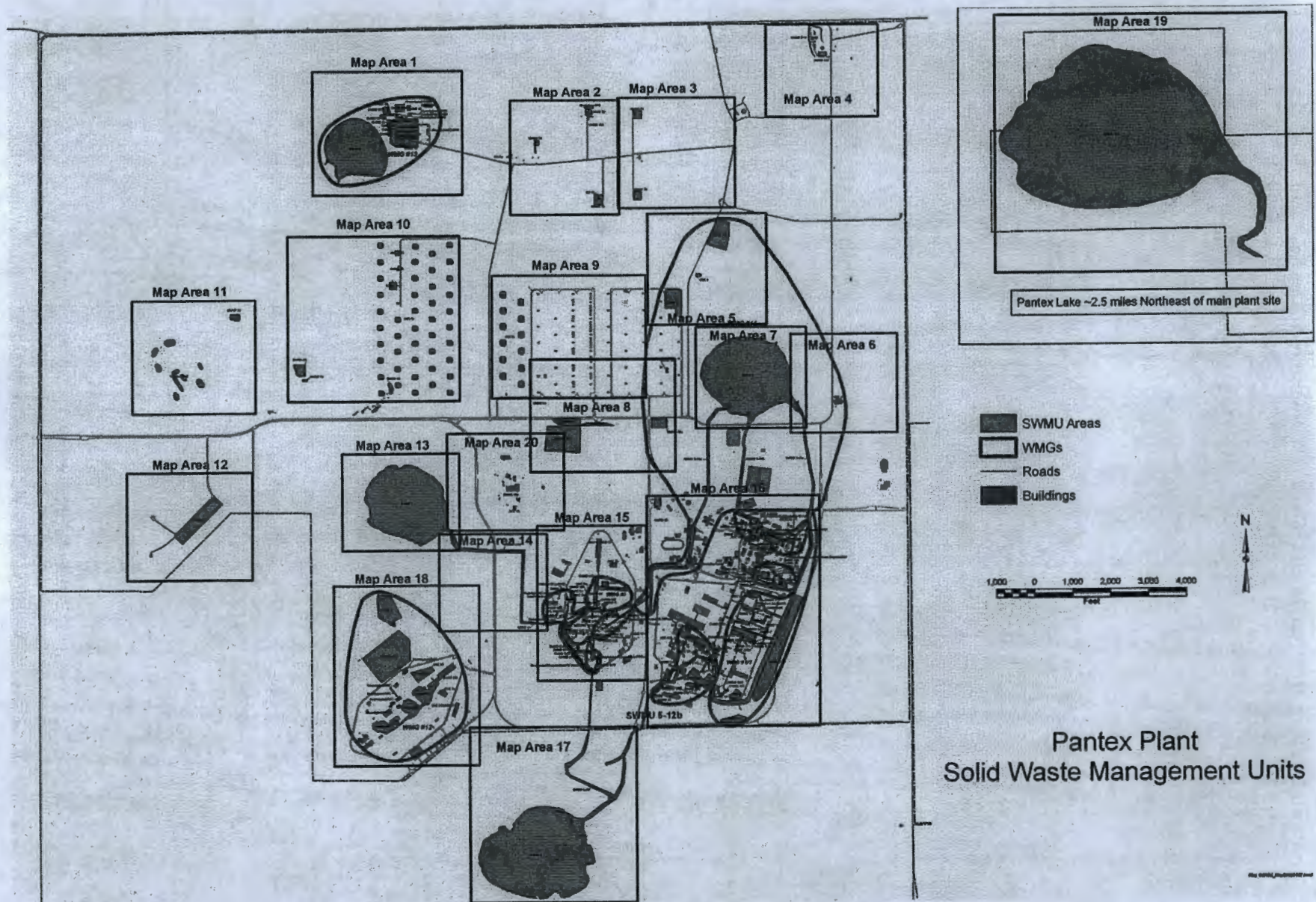


Permit No. 50284

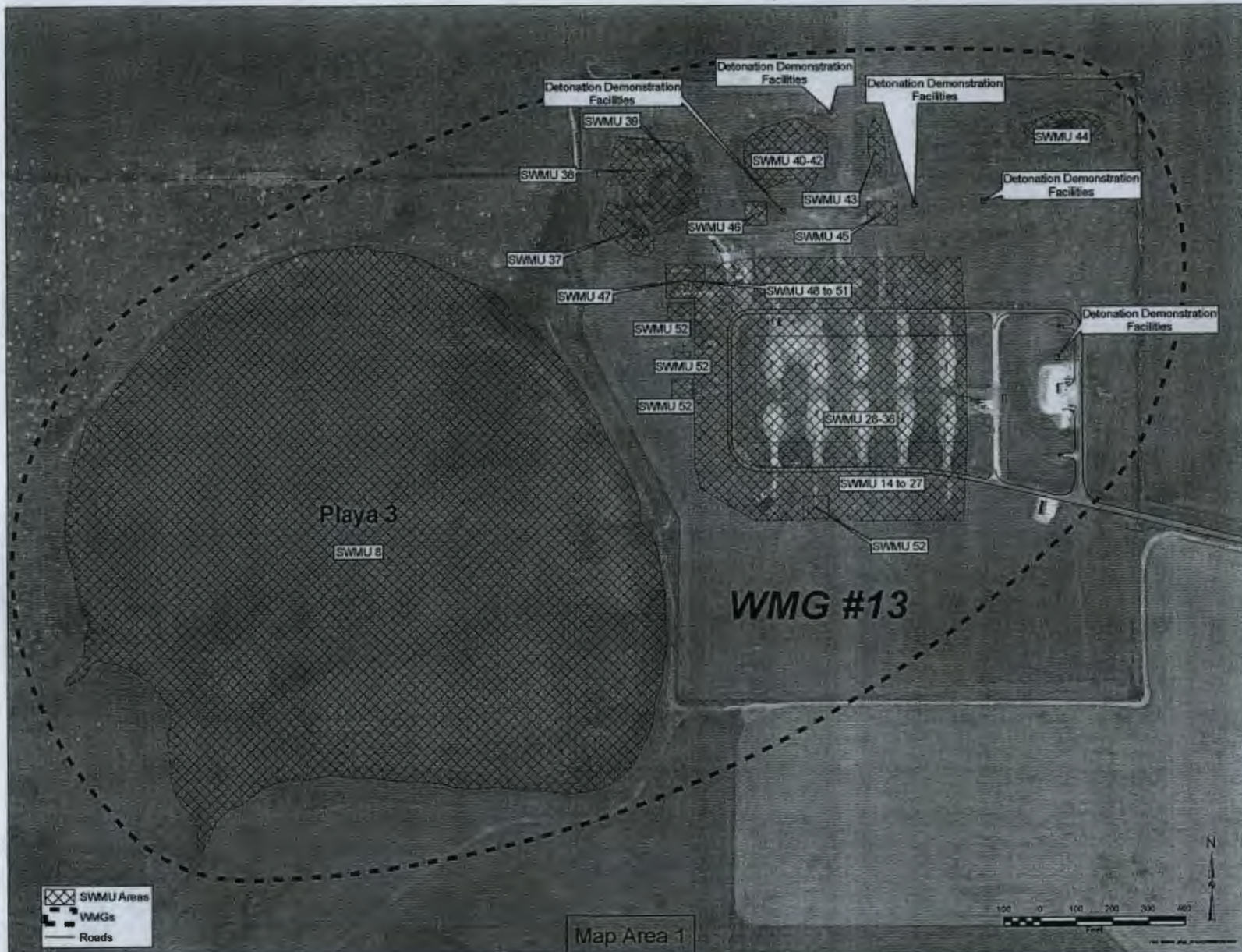
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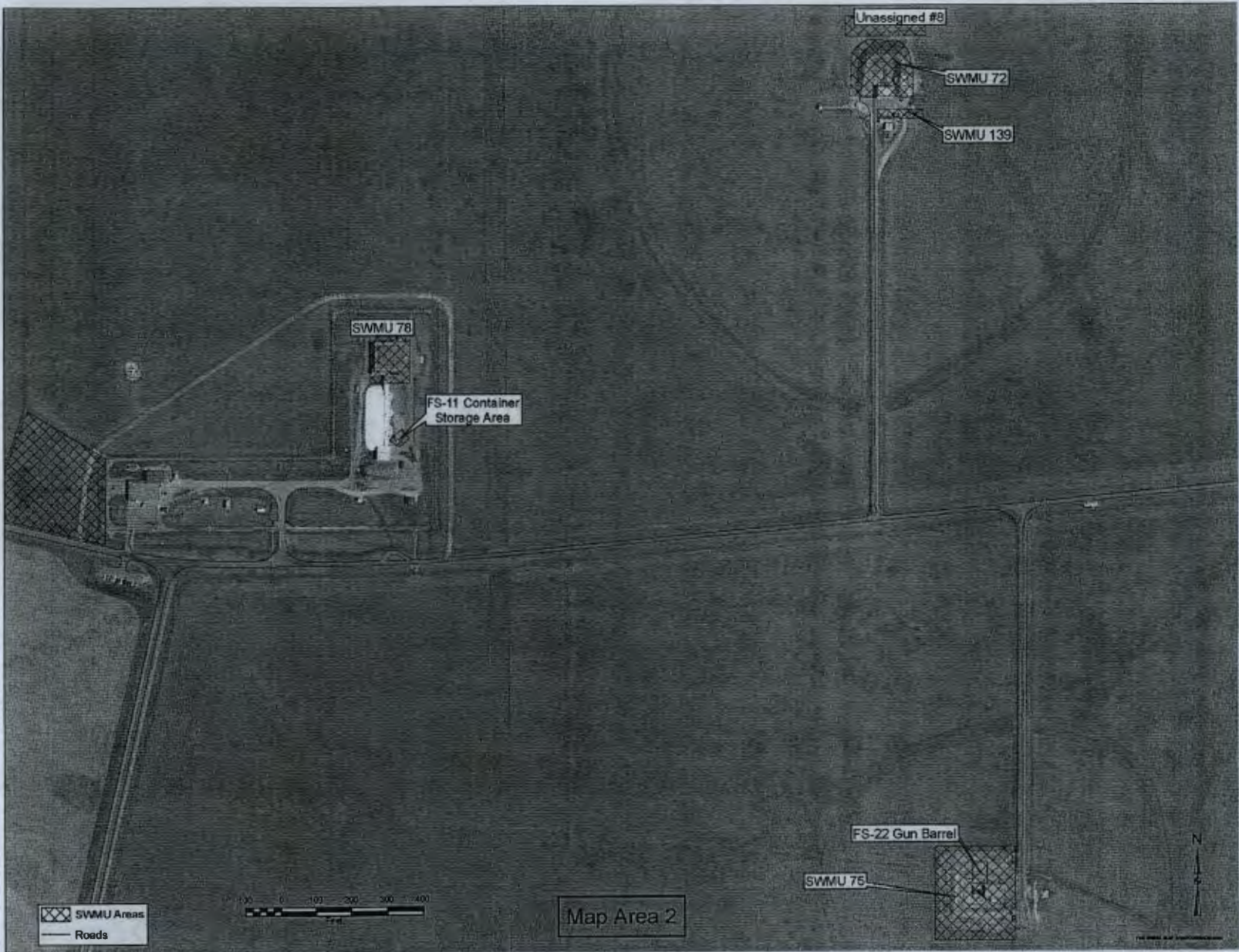
Attachment A, Facility Site Map, Sheet 1 of 26



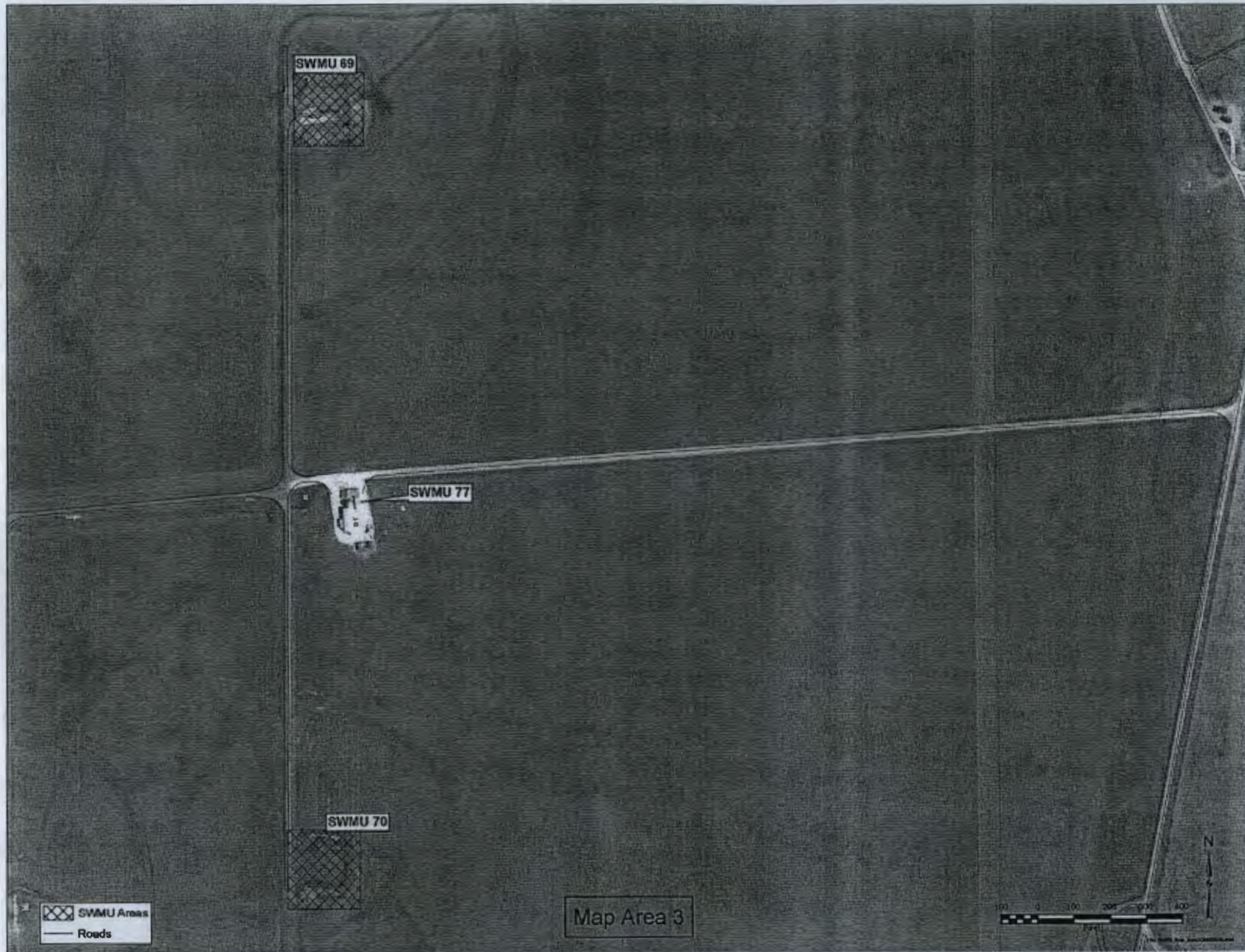
Attachment A, SWMU Map Areas, Sheet 2 of 26



Attachment A, SWMU Location Map Area 1, Sheet 3 of 26



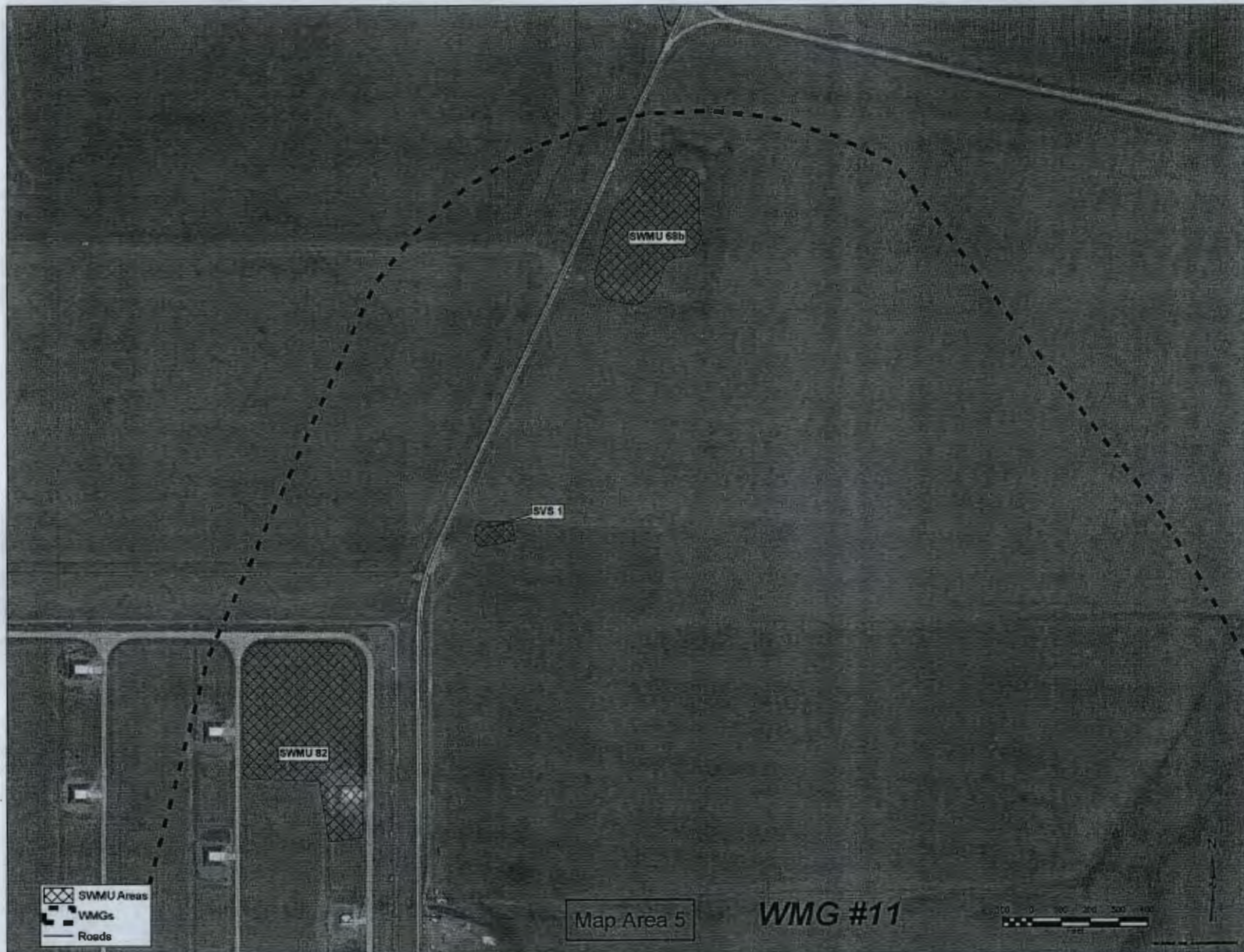
Attachment A, SWMU Location Map Area 2, Sheet 4 of 26



Attachment A, SWMU Location Map Area 3, Sheet 5 of 26



Attachment A, SWMU Location Map Area 4, Sheet 6 of 26



Attachment A, SWMU Location Map Area 5, Sheet 7 of 26

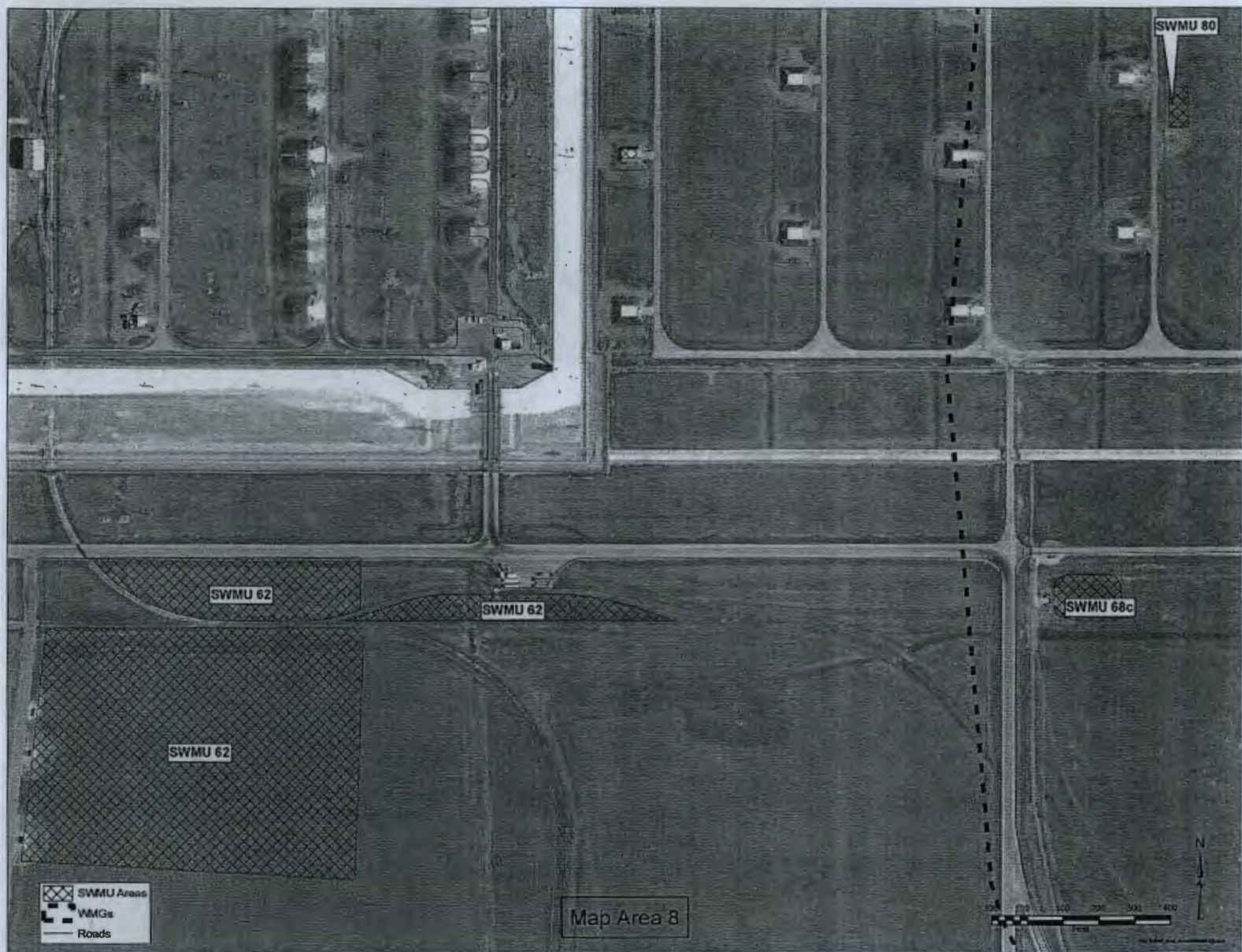


Attachment A, SWMU Location Map Area 6, Sheet 8 of 26

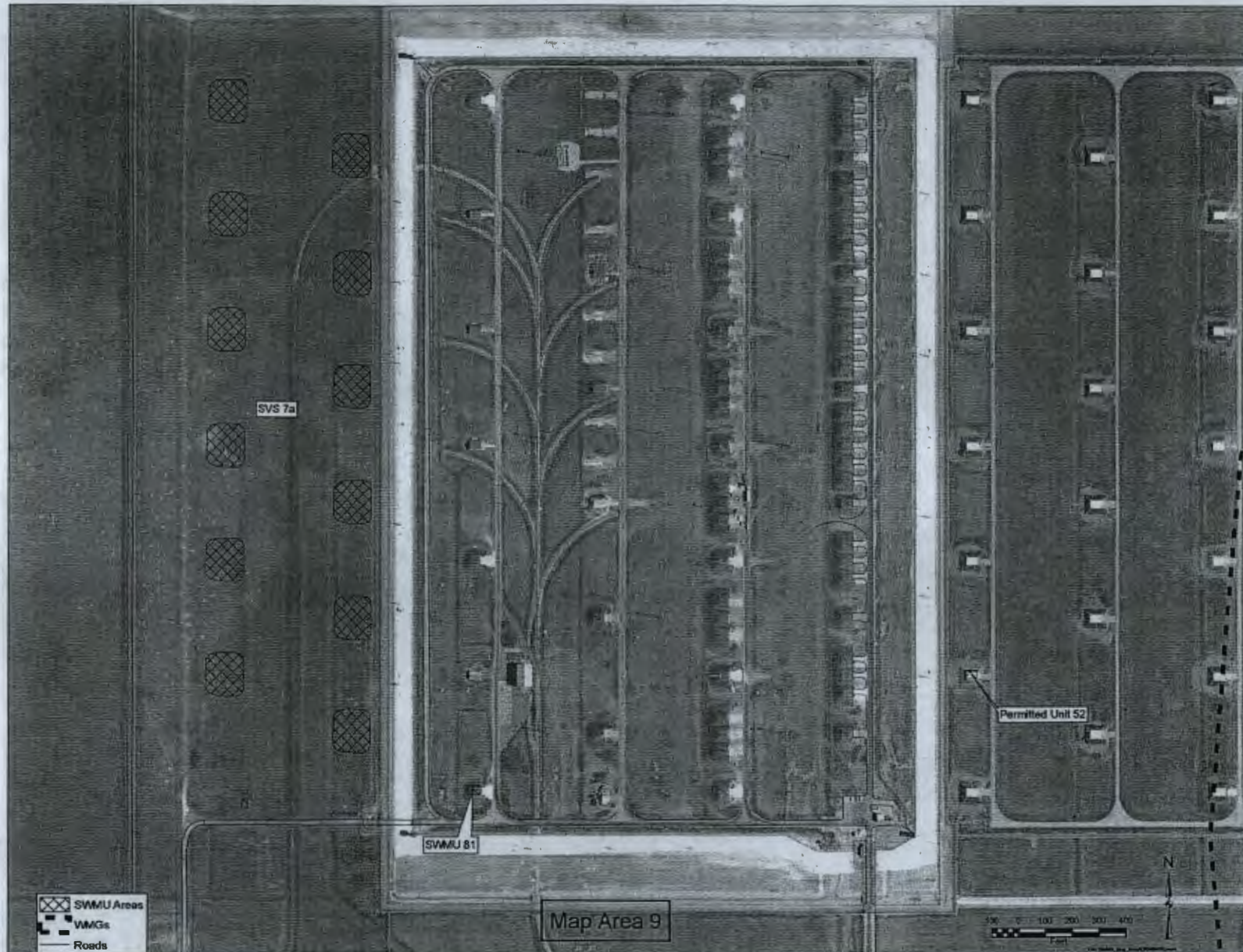




Attachment A, SWMU Location Map Area 7, Sheet 9 of 26

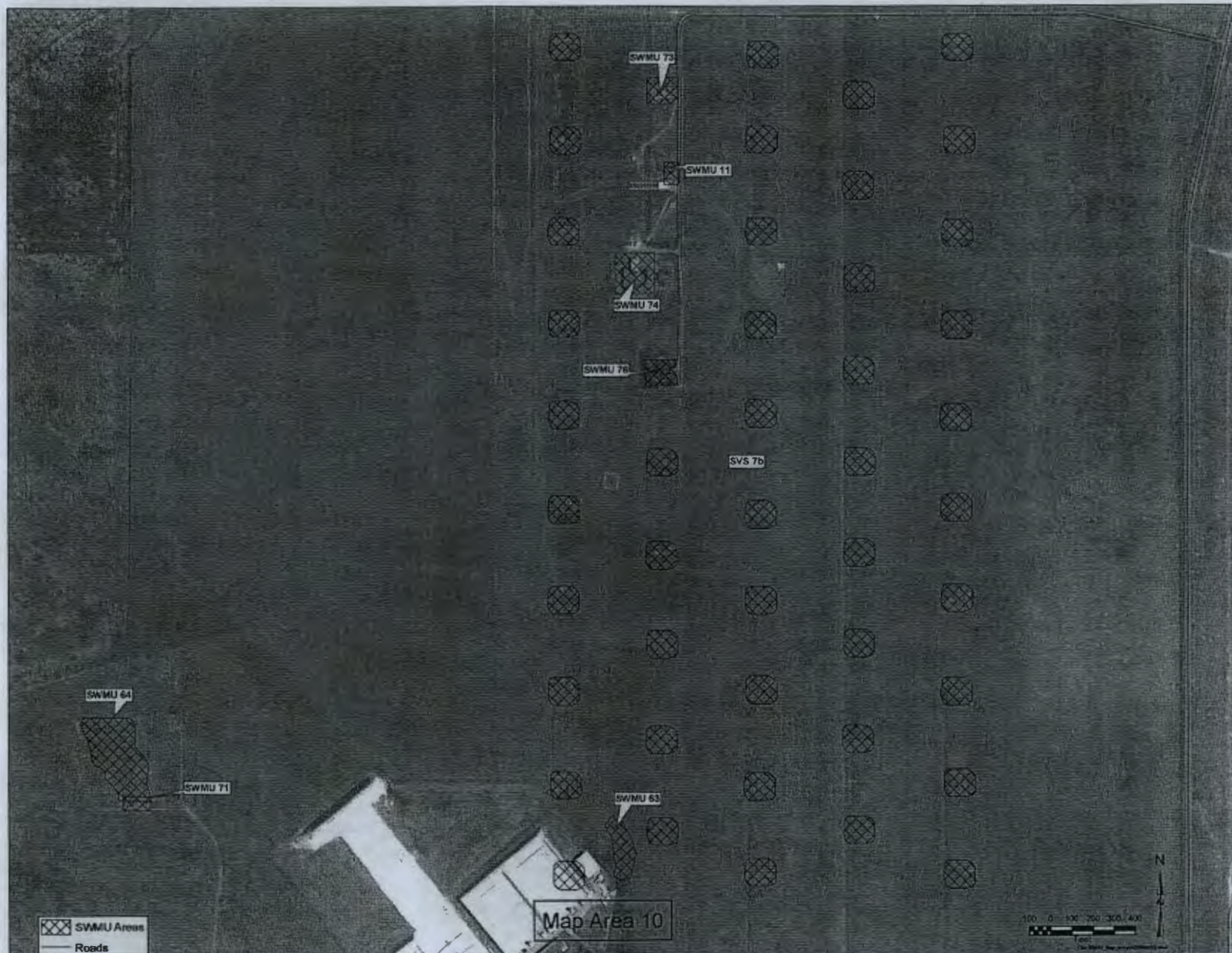


Attachment A, SWMU Location Map Area 8, Sheet 10 of 26

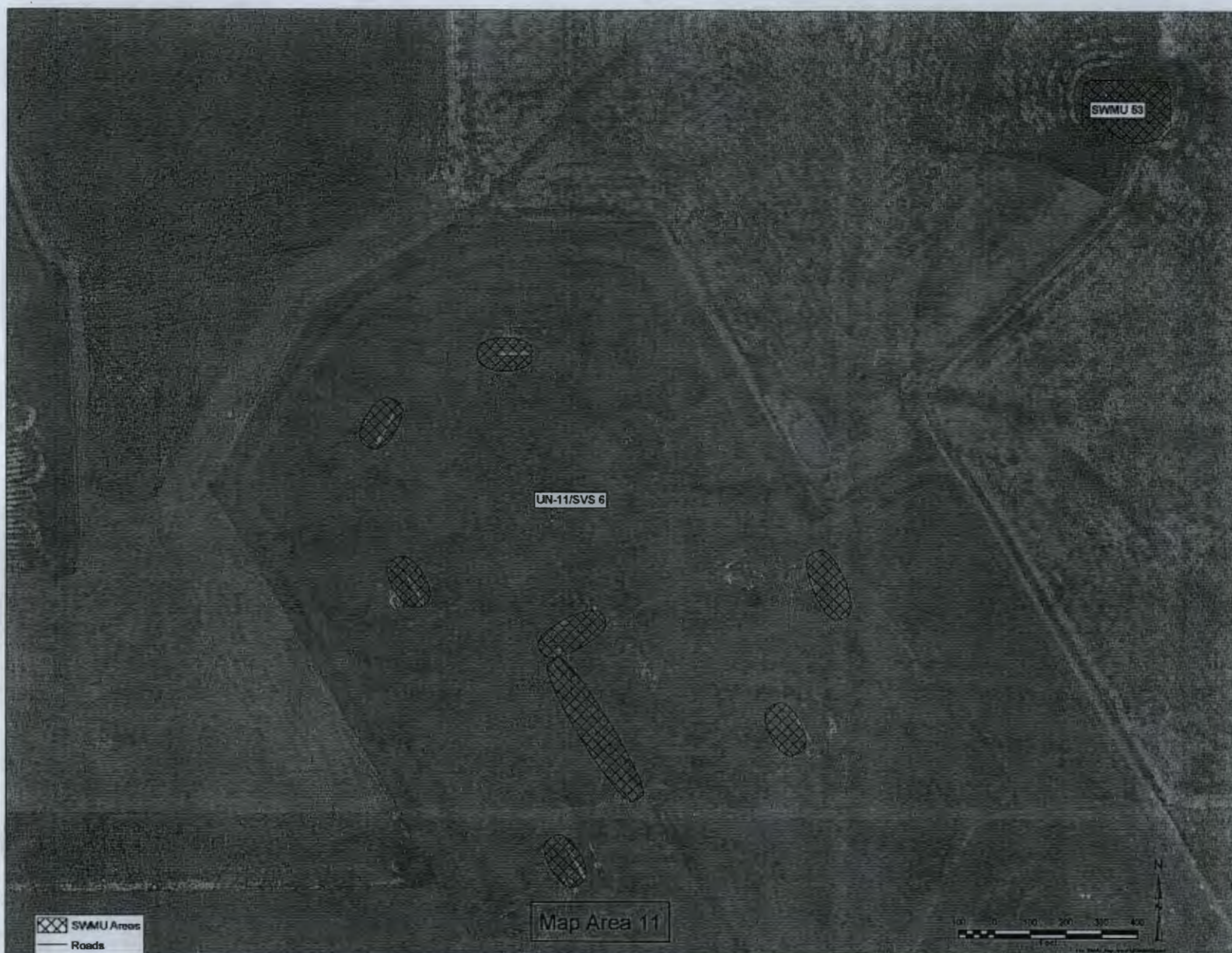


Attachment A, SWMU Location Map Area 9, Sheet 11 of 26

U.S. Department of Energy/National Nuclear Security Administration – Pantex Plant  
Compliance Plan No. 50284



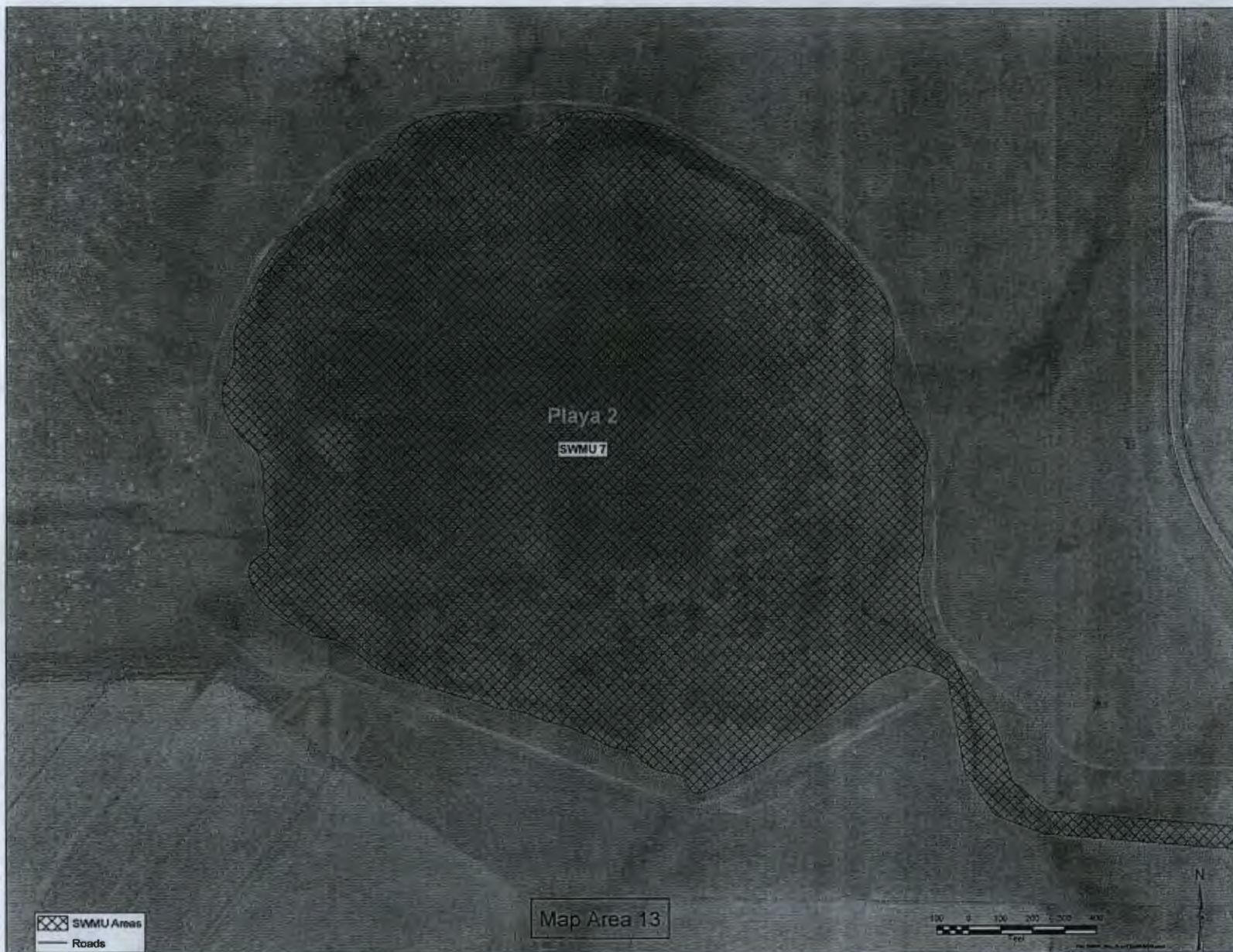
Attachment A, SWMU Location Map Area 10, Sheet 12 of 26



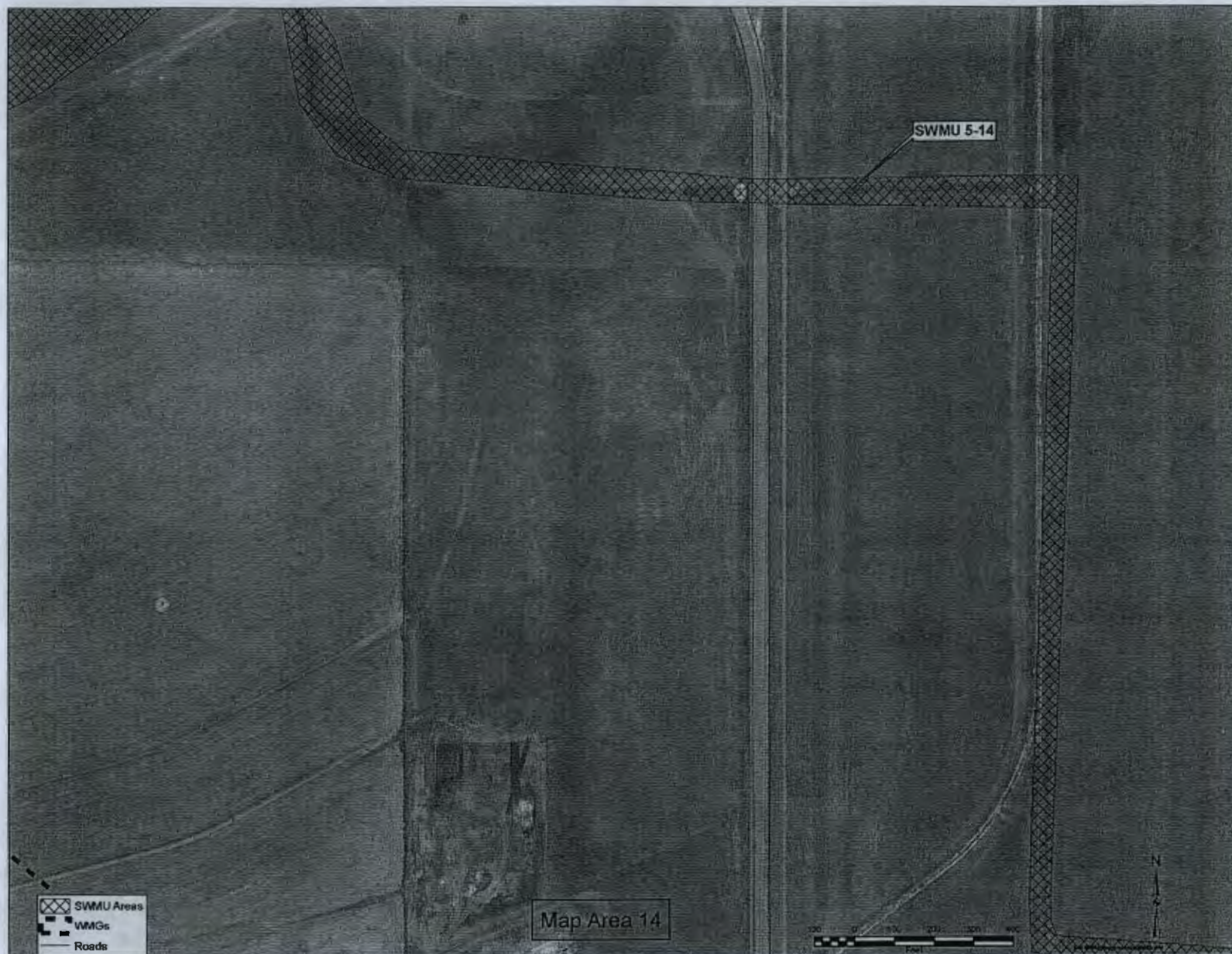
Attachment A, SWMU Location Map Area 11, Sheet 13 of 26



Attachment A, SWMU Location Map Area 12, Sheet 14 of 26



Attachment A, SWMU Location Map Area 13, Sheet 15 of 26



Attachment A, SWMU Location Map Area 14, Sheet 16 of 26

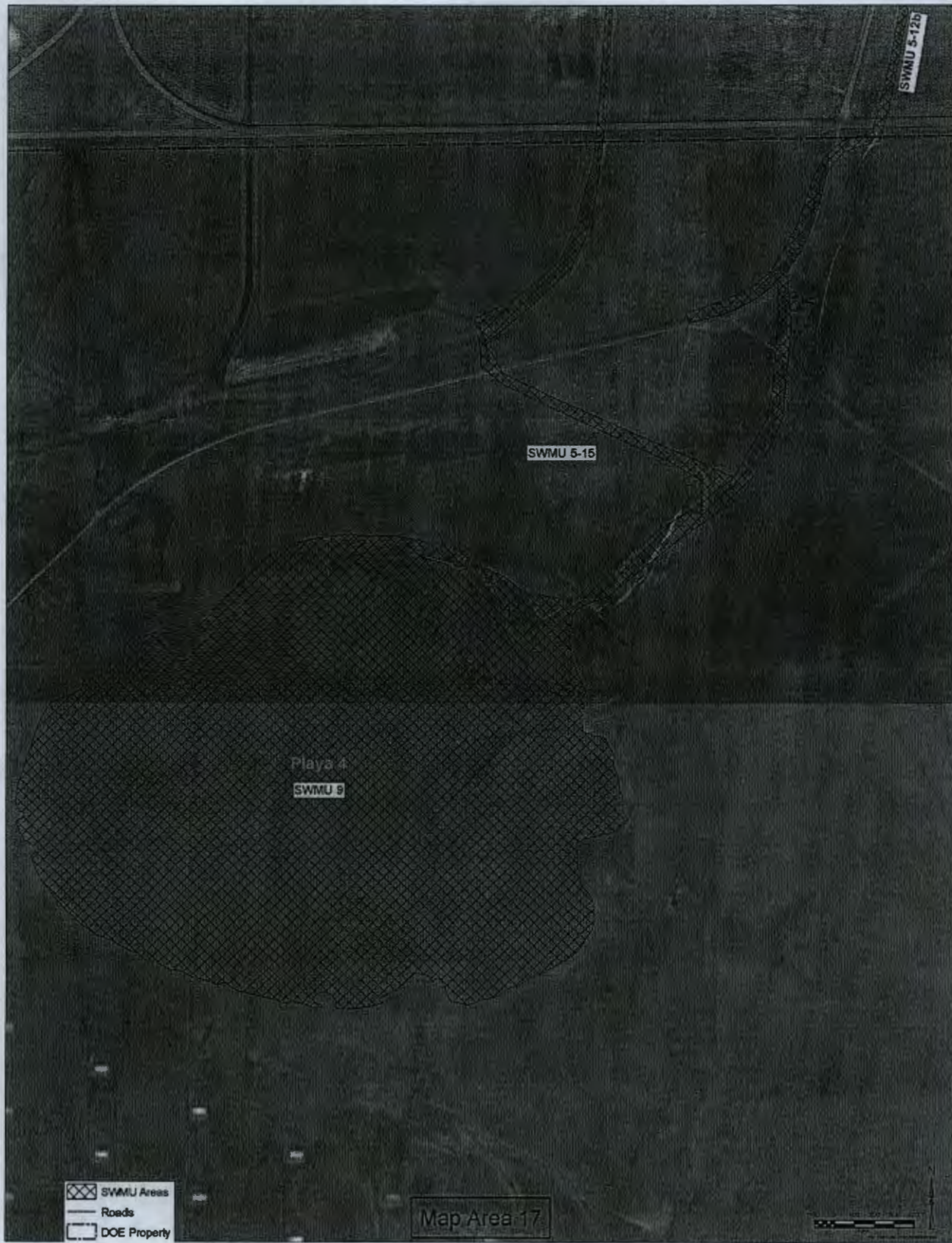




Attachment A, SWMU Location Map Area 15, Sheet 17 of 26



Attachment A, SWMU Location Map Area 16, Sheet 18 of 26



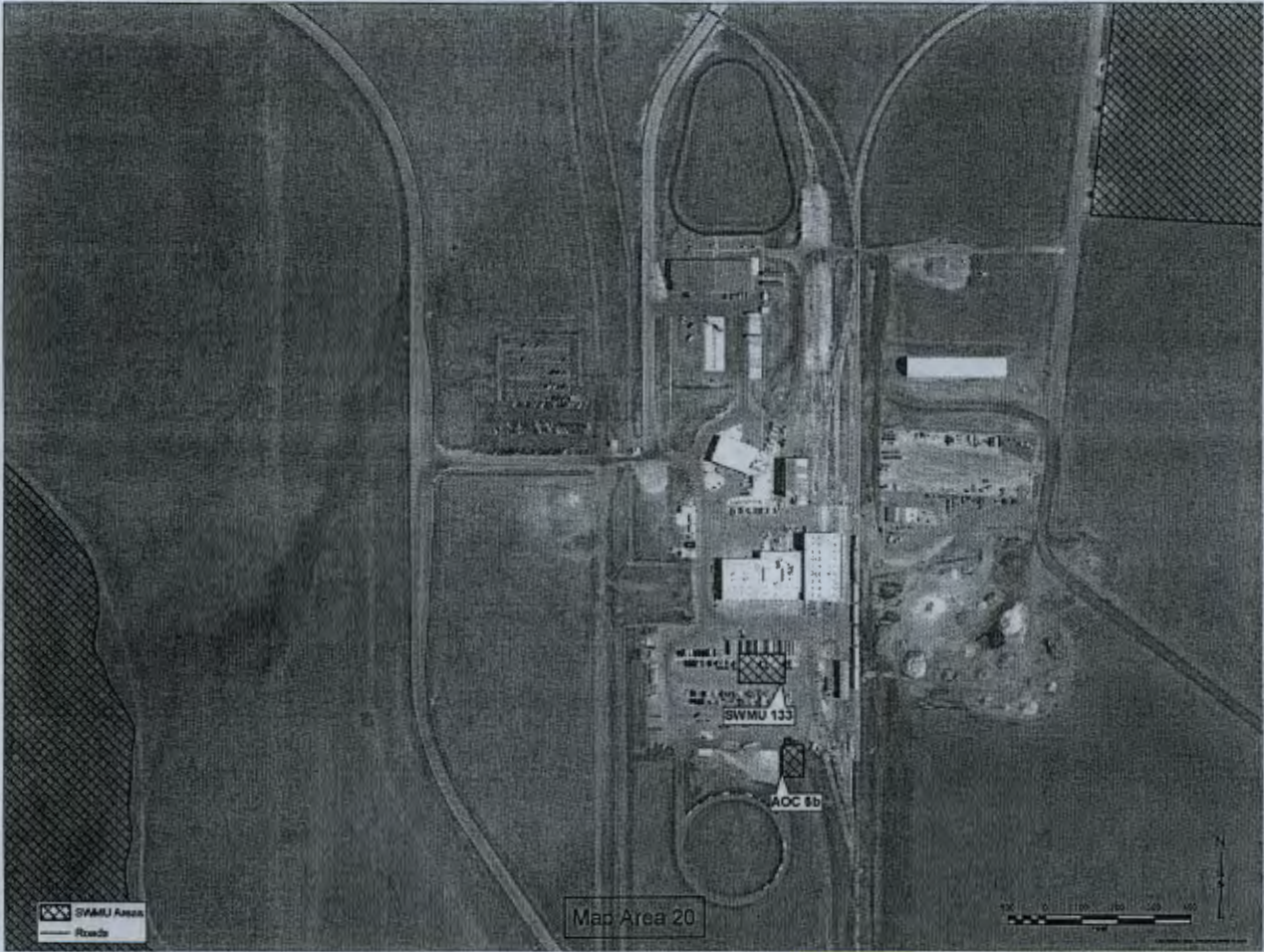
Attachment A, SWMU Location Map Area 17, Sheet 19 of 26



Attachment A, SWMU Location Map Area 18, Sheet 20 of 26



Attachment A, SWMU Location Map Area 19, Sheet 21 of 26



Attachment A, SWMU Location Map Area 20, Sheet 22 of 26

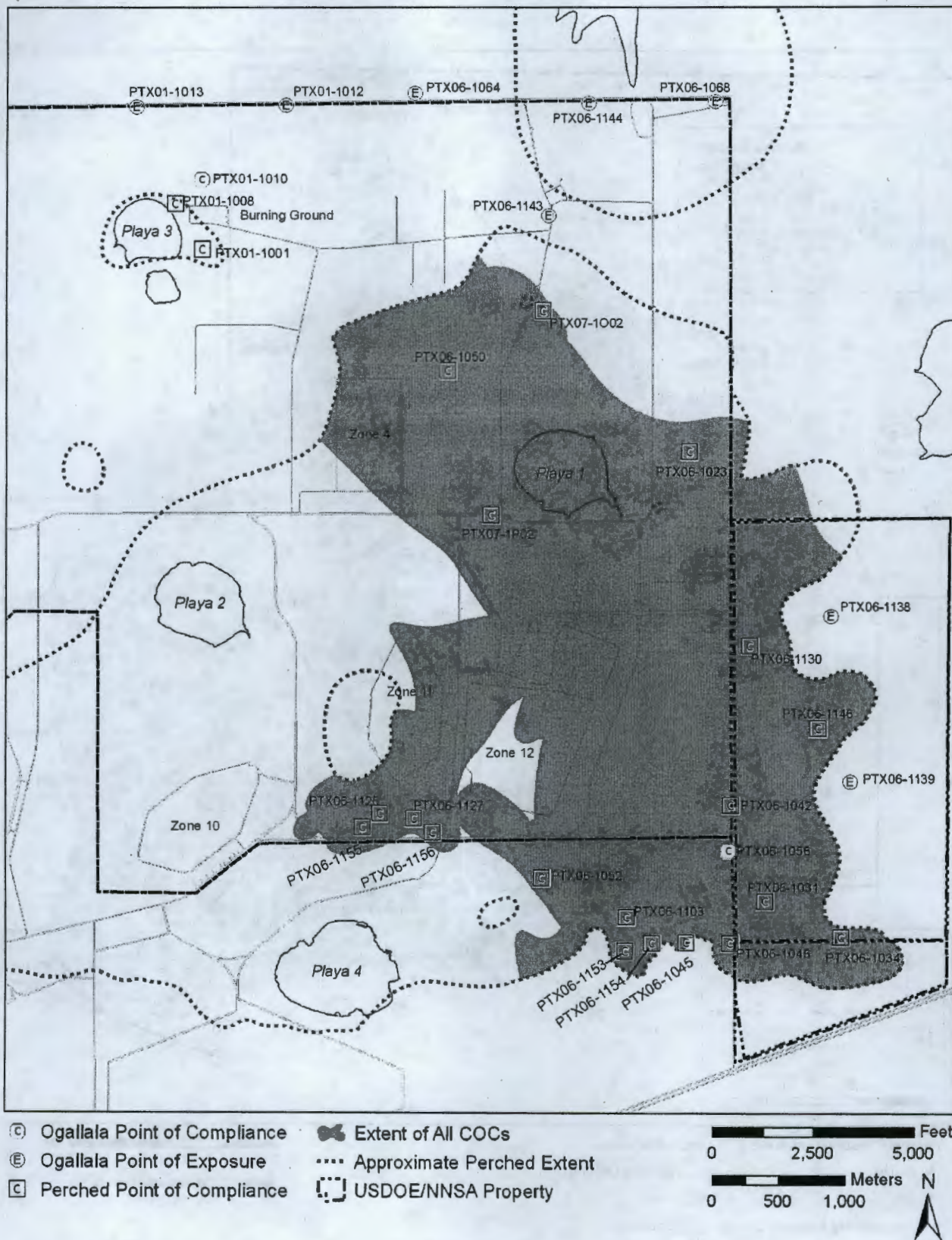


Table V Point of Compliance and Exposure Wells  
 Attachment A, Sheet 23 of 26

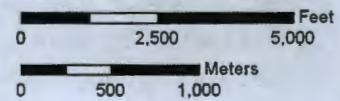


**Perched Observation Wells**

- ◆ Active
- + Dry
- ..... Approximate Perched Extent
- ▭ DOE/NNSA Property

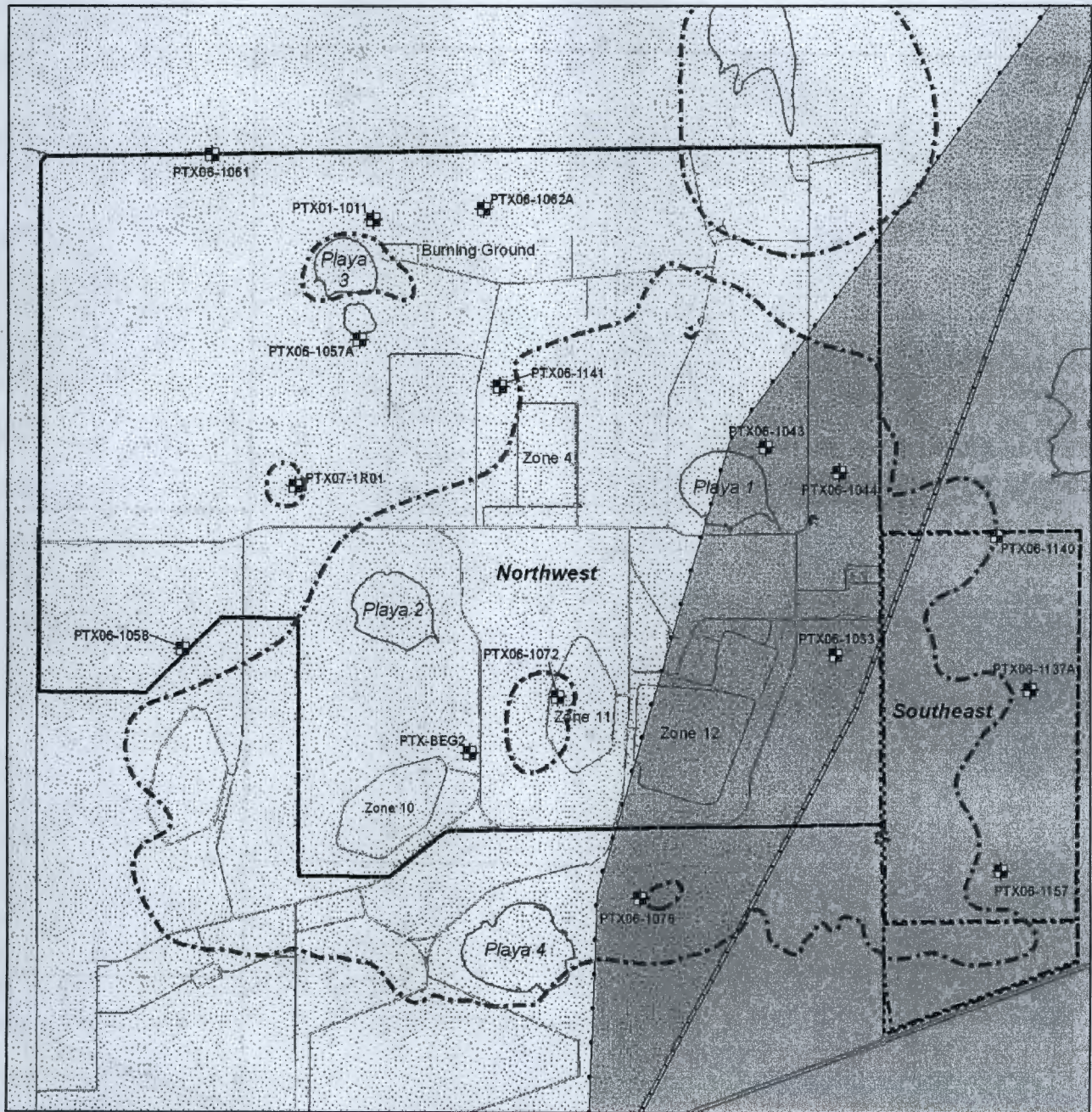
**Indicator Areas**

- ▭ Burning Ground
- ▭ North
- ▭ Southeast
- ▭ Zone 11



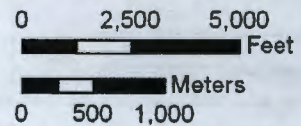
Perched Aquifer Observation Wells and Indicator Areas  
 Attachment A, Sheet 24 of 26



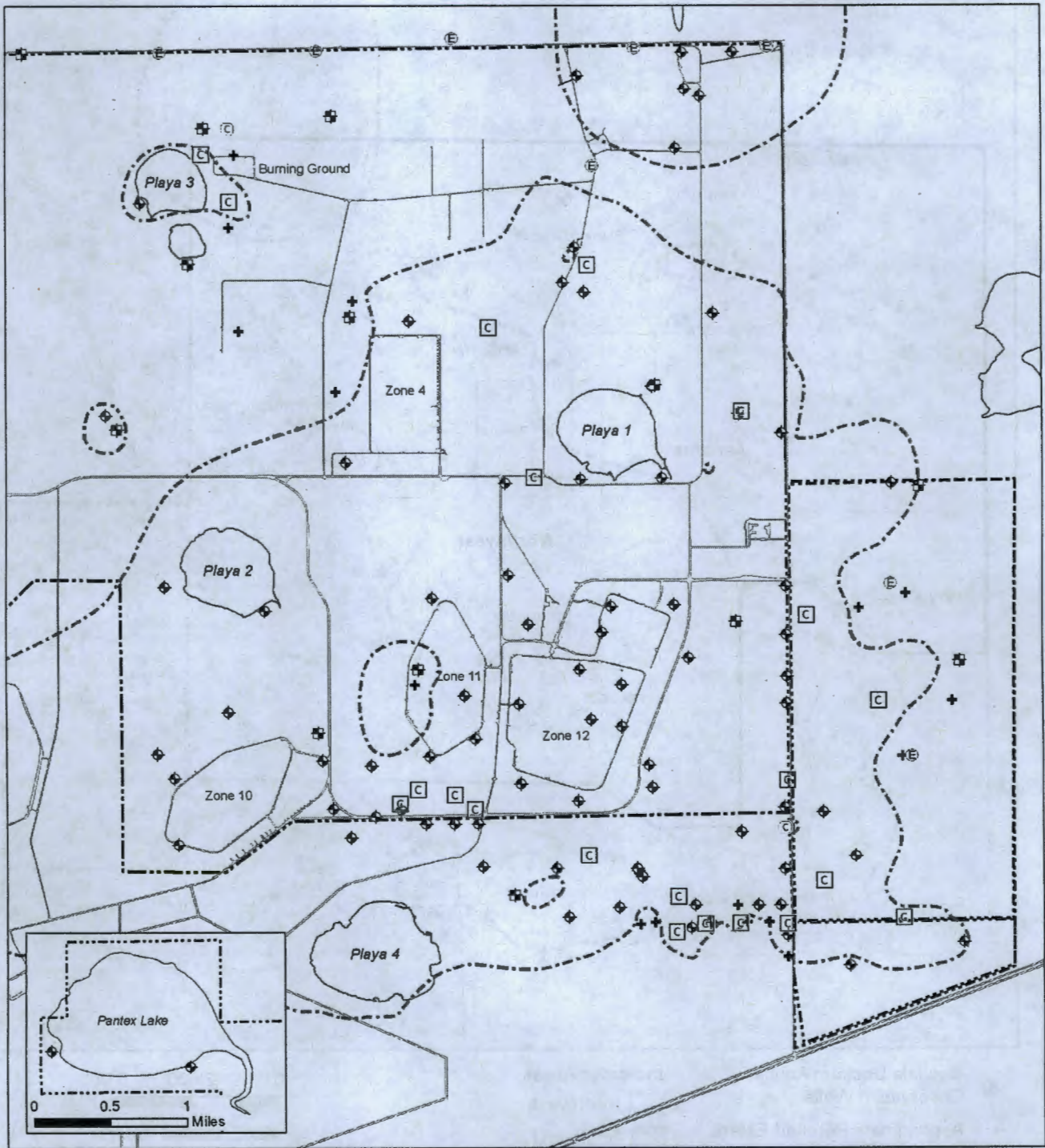


- Ogallala/Dockum Aquifer Observation Wells
- Approximate Perched Extent
- USDOE/NNSA Property

- Indicator Areas**
- Northwest
  - Southeast



Ogallala Aquifer Observation Wells and Indicator Areas  
 Attachment A, Sheet 25 of 26



--- Approximate Perched Extent  
 □ DOE/NNSA Property

Ogallala/Dockum Aquifer Wells  
 \* Observation  
 □ Point of Compliance  
 ⊕ Point of Exposure

Perched Wells  
 ◆ Active Observation  
 + Dry Observation  
 □ Point of Compliance

0 2,500 5,000 Feet  
 0 500 1,000 Meters

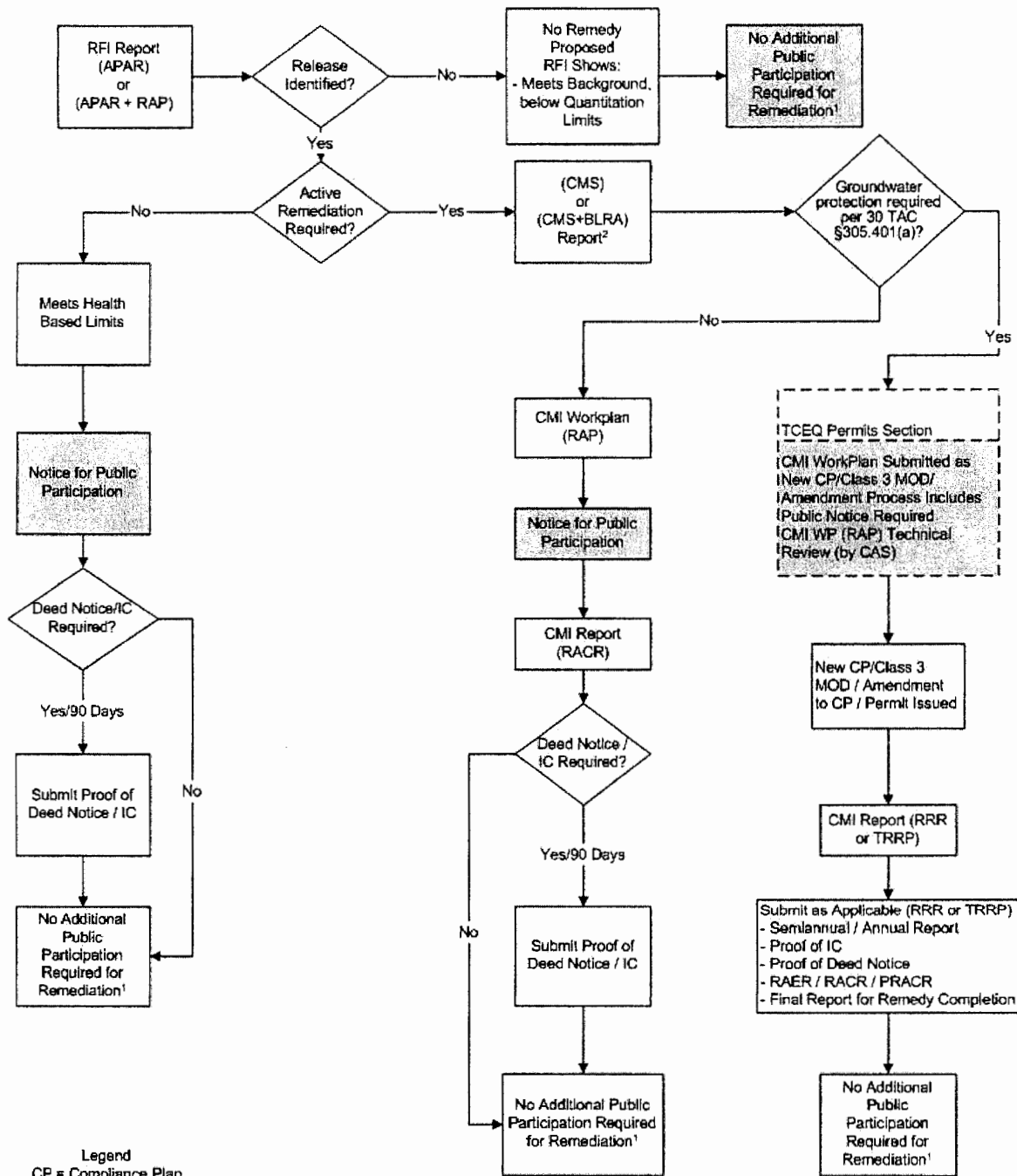


Long-Term Monitoring Network for Pantex Plant  
 Attachment A, Sheet 26 of 26

**CP Attachment B**

**Public Participation in HSWA Corrective Action**

6/22/2005



Legend  
 CP = Compliance Plan  
 IC = Institutional Control

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 new well installed after issuance of the Compliance Plan related to the recent application referenced in Provision XI.A.7 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 ten (10) 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 Provision XI.B.1 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 Provision XI.B.2, 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, Provision 19.
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 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 Provision 19 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					
Casing I.D.(in)					
Casing type/materials					
How joined					
Stick-up length					
Top of casing (+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)					

Depth to gravel pack(ft)					
Depth to 1 <sup>st</sup> 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)					