



BRUCE KING  
GOVERNOR

State of New Mexico  
**ENVIRONMENT DEPARTMENT**  
Harold Runnels Building  
1190 St. Francis Drive, P.O. Box 26110  
Santa Fe, New Mexico 87502  
(505) 827-2850

JUDITH M. ESPINOSA  
SECRETARY

RON CURRY  
DEPUTY SECRETARY

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

June 4, 1991

Colonel Ira L. Hester  
Commander, 833rd Combat Support Group  
Holloman Air Force Base, NM 88330

**RE: OPERATING PERMIT**  
**NM6572124422-1**

Dear Colonel Hester:

Enclosed is the operating permit required by the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C. 6901, et seq.) and the New Mexico Hazardous Waste Act (Sections 74-4-1 et seq. NMSA 1978) for the management of hazardous waste in the container storage facility at Holloman Air Force Base. This operating permit will become effective 30 days after receipt of this letter in accordance with the New Mexico Hazardous Waste Regulations (HWMR-6), Part IX, section 902.A.10. The U.S. Environmental Protection Agency (EPA), Region 6 will issue the permit for the Hazardous and Solid Waste Amendments of 1984.

The New Mexico Environment Department (NMED) received three comments from the EPA and the Hazardous and Radioactive Waste Bureau during the comment period on the draft permit. A copy of the NMED responses to comments is enclosed for your information.

You have the right to appeal this decision in accordance with the New Mexico Hazardous Waste Act, Section 74-4-4.2.G. which reads as follows: "Any person adversely affected by a decision of the Secretary concerning the issuance, modification, suspension or revocation of a permit may appeal the decision by filing a notice of appeal with the court of appeals within thirty days after the date the decision is made. The appeal shall be on this record made at the hearing. The appellant shall certify in his notice of appeal that arrangements have been made with the Department for a sufficient number of transcripts of the record of the hearing on which the appeal (sic.) depends to support his appeal

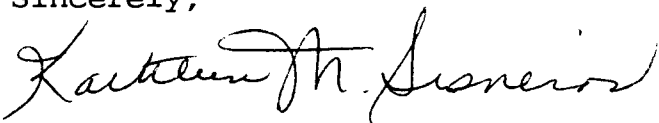
2 Permits in Magazine file: 1- official 1.- inspector workcopy

Colonel Ira L. Hester  
June 4, 1991  
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to the court, at the expense of the appellant, including one copy which he shall furnish to the Department."

If you have any questions on the technical content of the permit, please contact Dr. A. Elizabeth Gordon on the Hazardous and Radioactive Waste Bureau staff at 827-2926.

Sincerely,



*for* Judith M. Espinosa  
Secretary

Enclosures (2):        Operating permit  
                              Response-to-comments letter

cc: Mr. Bill Honker, EPA 6H-P, w/encls.  
      Mr. Ken Smith, NMED District III, w/out encls.

JME/DE/de



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HAZARDOUS WASTE FACILITY PERMIT

PERMITTEE: Holloman Air Force Base ID NO: NM6572124422  
PERMIT NO: NM6572124422-1

LOCATION: Highway 70 West, Holloman AFB, NM 88330

Pursuant to the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C. 6901, et seq.), and the New Mexico Hazardous Waste Act (§§ 74-4-1 et seq. NMSA 1978), a permit is issued to Holloman Air Force Base (hereafter called the Permittee) to operate a hazardous waste container storage facility at the location stated above.

The Permittee must comply with all the terms and conditions of this permit. This permit consists of the conditions contained herein including the attachments. Applicable provisions of regulations cited are those which are in effect on the effective date of this permit, New Mexico Hazardous Waste Management Regulations (HWMR-6). This permit shall become effective 30 days after notice of the decision has been served on the applicant in accordance with HWMR-6, Part IX, section 902.A.10. and shall run for a period of ten years.

This permit is also based on the assumption that all information contained in the permit application is accurate and that the facility will be operated as specified in the application. The permit application consists of information submitted in the original Part B permit application, dated February 15, 1985, and subsequent submissions received May 14, 1985, August 30, 1985, December 17, 1985, October 26, 1988, November 8, 1988, November 28, 1989, December 4, 1989, June 20, 1990, October 18, 1990 and in numerous exchanges of technical documents.

Any inaccuracies found in the information may be grounds for the termination or modification of this permit and potential enforcement action.

Signed this 4<sup>th</sup> day of June 1991

by Kathleen M. Sísneros  
Kathleen M. Sísneros, Director  
Water and Waste Management Division



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SECRETARY

RON CURRY  
DEPUTY SECRETARY

June 4, 1991

Mr. Bill Honker, 6H-P  
Chief, RCRA Permits Branch  
U.S. Environmental Protection Agency  
1445 Ross Ave., Suite 1200  
Dallas, Texas 75202

**RE: Holloman Air Force Base permit**

Dear Mr. Honker:

Enclosed is the operating permit for the management of hazardous waste in the container storage facility at Holloman Air Force Base. Also included are the comments from the U.S. Environmental Protection Agency, Region 6 and the New Mexico Environment Department received during the comment period on the draft permit.

If you have any questions, please contact Dr. A. Elizabeth Gordon on the Hazardous and Radioactive Waste Bureau staff at (505) 827-2926.

Sincerely,

*JME*  
Judith M. Espinosa  
Secretary

Enclosures (2):      Operating permit  
                                 Response-to-comments letter

JME/DE/de

## Response to comments on the Hazardous Waste Storage Permit for Holloman Air Force Base.

The New Mexico Environment Department proposed to issue a permit to Holloman Air Force Base for storage of hazardous waste in containers. The draft permit was submitted for public comment from February 11, 1991 to March 28, 1991. This letter contains responses to comments received from: U.S. Environmental Protection Agency-Region 6; New Mexico Hazardous and Radioactive Waste Bureau.

### Comments from U.S. Environmental Protection Agency-Region 6

1. **Comment:** There are several provisions in the draft permit which mention the 40 CFR requirements (e.g., HWMR-5, Pt. IX, Sec.270.30(c)). However, there is no indication in the permit which 40 CFR regulations are effective for this permit. This needs to be clarified in the permit. **Permit modification:** A copy of the New Mexico Hazardous Waste Management Regulations which incorporate 40 CFR by reference will be included in the permit.

### Comments from the Hazardous and Radioactive Waste Bureau

1. **Comment, Response and Permit modification:** The new revision of the New Mexico Hazardous Waste Management Regulations (HWMR-6) became effective on March 13, 1991 and superseded HWMR-5, as amended 1989. All references to HWMR-5 have been replaced with references to HWMR-6.

2. **Comment:** The Compliance & Enforcement/Hydrogeology Section would like the inclusion of a brief contingency section on groundwater monitoring. **Response:** Storage facilities are not required to address groundwater requirements. However, they are required to address releases and the Permit details the required actions and reports. However, to emphasize the concern the Section has for any release that could impact groundwater, a section on releases that refers the Permittee to the appropriate sections of the Permit has been added. **Permit modification:** The following was added to Module II of the Permit:

#### II.M. REQUIREMENTS FOR RELEASES

##### II.M.1. Releases from the Container Storage Area

If, based on information contained in reports required by Module I, Permit Conditions I.E.13.a., b. and c., the Secretary determines that a release from the container storage area is of such a quantity, duration or repeated occurrence that further assessment is required, he may direct the Permittee to conduct the sampling and analysis

required pursuant to HWMR-6, Pt. IX, sec. 270.14(d).

II.M.2. Releases from Newly Identified Solid Waste Management Units (SWMUs)

For newly identified SWMUs, the Permittee shall fulfill the requirements of Module IV, Permit Condition IV.E.



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HAZARDOUS WASTE FACILITY PERMIT

PERMITTEE: Holloman Air Force Base ID NO: NM6572124422  
PERMIT NO: NM6572124422-1

LOCATION: Highway 70 West, Holloman AFB, NM 88330

Pursuant to the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C. 6901, et seq.), and the New Mexico Hazardous Waste Act (§§ 74-4-1 et seq. NMSA 1978), a permit is issued to Holloman Air Force Base (hereafter called the Permittee) to operate a hazardous waste container storage facility at the location stated above.

The Permittee must comply with all the terms and conditions of this permit. This permit consists of the conditions contained herein including the attachments. Applicable provisions of regulations cited are those which are in effect on the effective date of this permit, New Mexico Hazardous Waste Management Regulations (HWMR-6). This permit shall become effective 30 days after notice of the decision has been served on the applicant in accordance with HWMR-6, Part IX, section 902.A.10. and shall run for a period of ten years.

This permit is also based on the assumption that all information contained in the permit application is accurate and that the facility will be operated as specified in the application. The permit application consists of information submitted in the original Part B permit application, dated February 15, 1985, and subsequent submissions received May 14, 1985, August 30, 1985, December 17, 1985, October 26, 1988, November 8, 1988, November 28, 1989, December 4, 1989, June 20, 1990, October 18, 1990 and in numerous exchanges of technical documents.

Any inaccuracies found in the information may be grounds for the termination or modification of this permit and potential enforcement action.

Signed this 4<sup>th</sup> day of June 1991

by Kathleen M. Sisneros  
Kathleen M. Sisneros, Director  
Water and Waste Management Division

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**MODULE I**

**GENERAL PERMIT CONDITIONS**

## MODULE I - GENERAL PERMIT CONDITIONS

### I.A. EFFECT OF PERMIT

The Permittee is allowed to store hazardous waste in accordance with the conditions of this Permit. Any storage of hazardous waste requiring a permit under the New Mexico Hazardous Waste Management Regulations (HWMR-6, as amended 1989), Part V and not specifically authorized in this Permit is prohibited. Subject to HWMR-6, Pt. IX, 40 CFR section 270.4, compliance with this Permit during its term constitutes compliance, for purposes of enforcement, with the New Mexico Hazardous Waste Act (Sections 74-4-1 et seq. NMSA 1978) and HWMR-6, Pts. V, VII, and IX, only for those management practices specifically authorized by this Permit. The Permittee is also required to comply with HWMR-6, Pts. I, II III and IV to the extent the requirements of those Parts are applicable. The Permittee must also comply with all applicable self-implementing provisions imposed by the Resource Conservation and Recovery Act (RCRA) or HWMR-6, Pt. VIII. A complete (RCRA) permit consists of this Permit and a US EPA Permit issued under the provisions of the Hazardous and Solid Waste Amendments of 1984 (HSWA) which addresses the portion of the RCRA program for which the State is not authorized. Issuance of this Permit does not convey any property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of state or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under Sections 3008(a), 3008(h), 3013, or 7003 of RCRA; Sections 106(a), 104 or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et seq., commonly known as CERCLA), or any other law providing for protection of public health or the environment. (HWMR-6, Pt. IX, § 270.4, 270.30(g))

### I.B. PERMIT ACTIONS

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

This Permit may be modified, revoked and reissued, or terminated for cause, as specified in HWMR-6, Pt. IX, §§ 270.41, 270.42, and 270.43. The filing of a request for a permit modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee, does not stay the applicability or enforceability of any permit condition. (HWMR-6, Pt. IX, §§ 270.4(a) and 270.30(f))

I.B.2. Permit Renewal

This Permit may be renewed as specified in HWMR-6, Pt. IX, § 270.30(b) and Permit Condition I.E.2. Review of any application for a Permit renewal shall consider improvements in the state of control and measurement technology, as well as changes in applicable regulations. (HWMR-6, Pt. IX, § 270.30(b))

I.C. SEVERABILITY

The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this Permit shall not be affected thereby. (HWMR-6, Pt. X, Section 1003)

I.D. DEFINITIONS

For purposes of this Permit, terms used herein shall have the same meaning as those in HWMR-6, Pts. I, V, VII, VIII, and IX, 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. "Secretary" means the Secretary of the New Mexico Environment Department (NMED), or his designee or authorized representative. "Regional Administrator" means the Regional Administrator of EPA Region VI, or his designee or authorized representative.

I.E. DUTIES AND REQUIREMENTS

I.E.1. Duty to Comply

The Permittee shall comply with all conditions of this Permit, except to the extent and for the duration such noncompliance is authorized by an emergency Permit. Any Permit noncompliance, other than noncompliance authorized by an emergency Permit, constitutes a violation of RCRA and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of a Permit renewal application. (HWMR-6, Pt. IX, § 270.30(a))

I.E.2. Duty to Reapply

If the Permittee wishes to continue an activity allowed by this Permit after the expiration date of this Permit, the Permittee shall submit a complete application for a new Permit at least 180 days prior to Permit expiration. (HWMR-6, Pt. IX, §§ 270.10(h), 270.30(b))

I.E.3. Permit Expiration

Pursuant to HWMR-6, Pt. IX, § 270.50, this Permit shall be effective for a fixed term of ten years from its effective date. As long as EID is the Permit-issuing authority, this Permit and all conditions herein will remain in effect beyond the Permit's expiration date, if the Permittee has submitted a timely, complete application (see HWMR-6, Pt. IX, §§ 270.10, 270.13 through 270.29) and, through no fault of the Permittee, the Secretary has not issued a new Permit, as set forth in HWMR-6, Pt. IX, § 270.51.

I.E.4. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action, that it would have been necessary to halt or reduce the Permitted activity in order to maintain compliance with the conditions of this Permit. (HWMR-6, Pt. IX, § 270.30(c))

I.E.5. Duty to Mitigate

In the event of noncompliance with this Permit, the Permittee shall take all reasonable steps to minimize releases to the environment and shall carry out such measures as are reasonable to prevent significant adverse impacts to human health or the environment. (HWMR-6, Pt. IX, § 270.30(d))

I.E.6. Proper Operation and Maintenance

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

provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Permit. (HWMR-6, Pt. IX, § 270.30(e))

I.E.7. Duty to Provide Information

The Permittee shall furnish to the Secretary, within a reasonable time, any relevant information which the Secretary may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit. The Permittee shall also furnish to the Secretary, upon request, copies of records required to be kept by this Permit. (HWMR-6, Pt. V, § 264.74(a); Pt. IX, § 270.30(h))

I.E.8. Inspection and Entry

Pursuant to HWMR-6, Pt. IX, § 270.30(i), the Permittee shall allow the Secretary, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

- I.E.8.a. Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;
- I.E.8.b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;
- I.E.8.c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and
- I.E.8.d. Sample or monitor, at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by RCRA, any substances or parameters at any location.

I.E.9. Monitoring and Records

- I.E.9.a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored substance or activity. The method used to obtain a representative sample must be described in Permit Attachment A (the waste analysis plan), or be approved by the

Secretary. Analytical methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (EPA publication SW-846); Standard Methods of Wastewater Analysis; or an equivalent method as specified in Permit Attachment A or approved by the Secretary. (HWMR-6, Pt. IX, § 270.30 (j)(1)).

I.E.9.b. The Permittee shall retain records of all monitoring, sampling, and analytical information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this Permit, the certification (concerning waste minimization) required by HWMR-6, Pt. V, § 264.73(b)(9), and records of all data used to complete the application for this Permit for a period of at least 3 years from the date of the sample, measurement, report, record, certification, or application. These periods may be extended by request of the Secretary at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility. (HWMR-6, Pt. V, § 264.74(b); Pt. IX, § 270.30(j)(2))

I.E.9.c. Pursuant to HWMR-6, Pt. IX, § 270.30(j)(3), records of monitoring, sampling, and analytical information shall specify:

- i. The dates, exact place, and times of sampling or measurements;
- ii. The individuals who performed the sampling or measurements;
- iii. The dates analyses were performed;
- iv. The individuals who performed the analyses;
- v. The analytical techniques or methods used; and
- vi. The results of such analyses.

I.E.10. Reporting Planned Changes

The Permittee shall give notice to the Secretary, as soon as possible, of any planned physical alterations

or additions to the Permitted facility. (HWMR-6, Pt. IX, § 270.30(1)(1))

I.E.11. Reporting Anticipated Noncompliance

The Permittee shall give advance notice to the Secretary of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. (HWMR-6, Pt. IX, § 270.30(1)(2))

I.E.12. Transfer of Permits

This Permit is not transferable to any person, except after notice to the Secretary. The Secretary may require modification or revocation and reissuance of the Permit pursuant to HWMR-6, Pt. IX, § 270.40. Before transferring ownership or operation of the facility during its operating life, the Permittee shall notify the new owner or operator in writing of the requirements of HWMR-6, Pts. V and IX, and this Permit. (HWMR-6, Pt. IX, § 270.30(1)(3); Pt. V, § 264.12(c))

I.E.13. Twenty-four hour and subsequent reporting

I.E.13.a The Permittee shall report to the Secretary any spill, release, fire, explosion, or other occurrence which involves a quantity of hazardous waste greater than one pound which escapes the secondary containment system, or which might otherwise endanger human health or the environment. This report must be made orally within twenty-four hours of the time the Permittee first becomes aware of the situation. It must be made even if the facility's contingency plan is not implemented. The report must include:

- i. Name, address, and telephone number of the owner or operator;
- ii. Name, address, and telephone number of the facility;
- iii. Date, time, and type of incident;
- iv. Name and quantity of materials involved;
- v. The extent of injuries, if any;
- vi. An assessment of actual or potential hazards to the environment and human health outside the facility, including particularly any possible threat to public or private

drinking water supplies, where this is applicable; and

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

I.E.13.b A written submission shall also be provided within five days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the occurrence and its cause; the period(s) of the occurrence (including exact dates and times); whether the situation has been corrected; and, if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the situation. The Secretary may waive the five-day written notice requirement in favor of a written report within 15 days. (HWMR-6, Pt. IX, § 270.30(1)(6))

I.E.13.c If the Contingency Plan is implemented, the Permittee must comply with the reporting requirements listed in Permit Attachment E.

I.E.14. Other Noncompliance

The Permittee shall report all other instances of noncompliance, not otherwise required to be reported by Permit Conditions I.E.1. and I.E.13., as soon as the Permittee becomes aware of them. The reports shall contain the information listed in Permit Condition I.E.13.b (HWMR-6, Pt. IX, § 270.30(1)(10))

I.E.15. Other Information

Whenever the Permittee becomes aware that it failed to submit any relevant facts in the Permit application, or submitted incorrect information in a Permit application or in any report to the Secretary, the Permittee shall promptly submit such facts or information. (HWMR-6, Pt. IX, §§ 270.30(1)(11))

I.F. SIGNATORY REQUIREMENT

All applications, reports, or information submitted to or requested by the Secretary, his designee, or authorized representative, shall be signed and certified in accordance with HWMR-6, Pt. IX, § 270.11 and 270.30(k).



I.G. REPORTS, NOTIFICATIONS, AND SUBMISSIONS TO THE Secretary

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

Secretary  
Environment Department  
H. Runnels Bldg. N2300  
P.O. Box 26110  
Santa Fe, New Mexico 87502

I.H. CONFIDENTIAL INFORMATION

In accordance with HWMR-6, Pt. IX, § 270.12, the Permittee may claim as confidential any information required to be submitted by this Permit.

I.I. DOCUMENTS TO BE MAINTAINED AT THE FACILITY

The Permittee shall maintain at the facility, until closure is completed and certified by an independent, registered professional engineer, the following documents and all amendments, revisions and modifications to these documents:

- I.I.1. Waste Analysis Plan, as required by HWMR-6, Pt. V, § 264.13 and this Permit.
- I.I.2. Inspection schedules, as required by HWMR-6, Pt. V, § 264.15(b)(2) and this Permit.
- I.I.3. Personnel training documents and records, as required by HWMR-6, Pt. V, § 264.16(d) and this Permit.
- I.I.4. Contingency Plan, as required by HWMR-6, Pt. V, § 264.53(a) and this Permit.
- I.I.5. Operating record, as required by HWMR-6, Pt. V, § 264.73 and this Permit.
- I.I.6. Closure Plan, as required by HWMR-6, Pt. V, § 264.112(a) and this Permit.
- I.I.7. All other documents required by Module I, Permit Condition I.E.9; Module II, Permit Condition II.H.6.; and Module III, including Permit Condition III.B.3.a.ii.

I.J. PERMIT CONSTRUCTION

I.J.1. Citations

Whenever paragraphs of this Permit or of the Hazardous Waste Management Regulations are cited, such citations include all subordinate sections of the cited paragraphs. When subordinate sections are cited, such citations includes all subsections of the cited subparagraphs. All such citations shall be considered an inclusion by reference to this Permit in accordance with HWMR-6, Pt. IX.

I.J.2. Gender

Whenever the pronoun "he" used in reference to the Secretary of the New Mexico Environment Department or the Permittee, it is to be read as "she" in any instance where the object of the reference is female.

**MODULE II**

**GENERAL FACILITY CONDITIONS**

## MODULE II - GENERAL FACILITY CONDITIONS

### II.A. DESIGN AND 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 nonsudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment, as required by HWMR-6, Pt. V, § 264.31. The Permittee shall maintain the structures and equipment and follow the procedures described in Permit Attachments A through G.

### II.B. REQUIRED NOTICES

#### II.B.1. Hazardous Waste Imports

This Permit does not allow the Permittee to accept wastes from a foreign source. If the Permittee is to receive hazardous waste from a foreign source, he shall apply for and receive a permit modification in accordance with HWMR-6, Pt. IX, §§ 270.41 or 270.42 prior to accepting such waste.

#### II.B.2. Hazardous Waste from Off-Site Sources

This Permit does not allow the Permittee to accept wastes from an off-site source. If the Permittee is to receive hazardous waste from an off-site source, he shall apply for and receive a permit modification in accordance with HWMR-6, Pt. IX, §§ 270.41 or 270.42 prior to accepting such waste.

### II.C. GENERAL WASTE ANALYSIS

The Permittee shall follow the waste analysis procedures required by HWMR-6, Pt. V, § 264.13, as described in the attached Waste Analysis Plan, Permit Attachment A.

The Permittee shall verify the analysis of each waste stream according to the schedule set out in Permit Attachment A. Any sampling, testing, or analytical methods not specifically described in Permit Attachment A must be as specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, EPA Publication SW-846, Standard Methods of Wastewater Analysis, or equivalent methods approved by the Secretary. At a minimum, the Permittee shall maintain proper functional instruments, use approved sampling and analytical methods, verify the validity of sampling and analytical procedures, and perform correct calculations. If the Permittee uses a contract laboratory to perform analyses, the Permittee shall inform the laboratory in writing that it must operate under the waste analysis conditions set forth in this Permit.

II.D.        SECURITY

The Permittee shall comply with the security provisions of HWMR-6, Pt. V, §§ 264.14(b)(2) and 264.14(c); and Permit Attachment C (Procedures to Prevent Hazards).

II.E.        GENERAL INSPECTION REQUIREMENTS

The Permittee shall follow the inspection schedule set out in Permit Attachment C (Procedures to Prevent Hazards). The Permittee shall remedy any deterioration or malfunction discovered by an inspection as required by HWMR-6, Pt. V, § 264.15(c). Records of inspection shall be kept, as required by HWMR-6, Pt. 5, § 264.15(d) and by Module I, Permit Condition I.I.2.

II.F.        PERSONNEL TRAINING

The Permittee shall conduct personnel training, as required by HWMR-6, Pt. V, § 264.16. This training program shall follow the attached outline, Permit Attachment D (Personnel Training). The Permittee shall maintain training documents and records, as required by HWMR-6, Pt. V, §§ 264.16(d) and (e), and Permit Condition I.I.3.

II.G.        SPECIAL PROVISIONS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE

The Permittee shall comply with the requirements of HWMR-6, Pt. V, § 264.17(a). The Permittee shall follow the procedures for handling ignitable, reactive, and incompatible wastes set forth in Permit Attachments B (Container Management) and C (Procedures to Prevent Hazards).

II.H.        PREPAREDNESS AND PREVENTION

II.H.1.     Required Equipment

At a minimum, the Permittee shall maintain at the facility the equipment set forth in Permit Attachment B (Container Management) and Permit Attachment E (Contingency Plan), as required by HWMR-6, Pt. V, § 264.32.

II.H.2.     Testing and Maintenance of Equipment

The Permittee shall test and maintain the equipment specified above in Permit Condition II.H.1, as necessary, to assure its proper operation in time of emergency, as required by HWMR-6, Pt. V, § 264.33.

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

The Permittee shall maintain access to the communications or alarm system as required by HWMR-6, Pt. V, § 264.34.

II.H.4. Required Aisle Space

At a minimum, the Permittee shall maintain aisle space as required by HWMR-6, Pt. V, § 264.35 and the plans and specifications contained in Permit Attachment B.

II.H.5. Arrangements with Local Authorities

The Permittee shall maintain preparedness and prevention arrangements with state and local authorities as required by HWMR-6, Pt. V, § 264.37. If state or local officials refuse to enter into preparedness and prevention arrangements with the Permittee, the refusal must be documented in the operating record.

II.H.6 The Permittee will maintain, in an accessible location, a current inventory showing type, location, and quantity of all hazardous materials and hazardous waste at the facility.

II.I. CONTINGENCY PLAN

II.I.1. Implementation of Plan

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

II.I.2. Copies of Plan

The Permittee shall maintain and distribute copies of the Contingency Plan in accordance with the requirements of HWMR-6, Pt. V, § 264.53.

II.I.3. Amendments to Plan

The Permittee shall review and immediately amend, if necessary, the Contingency Plan as required by HWMR-6, Pt. V, § 264.54.

II.I.4. Emergency Coordinator

A trained emergency coordinator shall be available at all times in case of an emergency, as required by HWMR-6, Pt. V, § 264.55.

II.J.        MANIFEST SYSTEM

The Permittee shall comply with the manifest requirements of HWMR-6, Pt. V, §§ 264.71, 264.72, and 264.76.

II.K        RECORDKEEPING AND REPORTING

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

II.K.1.    Operating record

The Permittee shall maintain a written operating record at the facility, as required by HWMR-6, Pt. 5, § 264.73.

II.K.2.    Biennial Report

The Permittee shall comply with the biennial reporting requirements of HWMR-6, Pt. V, § 264.75.

II.L.       GENERAL CLOSURE REQUIREMENTS

II.L.1.    Performance Standard

The Permittee shall close the facility, as required by HWMR-6, Pt. V, § 264.111 and in accordance with the Closure Plan, Permit Attachment F.

II.L.2.    Amendment to Closure Plan

The Permittee shall amend the Closure Plan, in accordance with HWMR-6, Pt. V, § 264.112(c), whenever necessary.

II.L.3.    Notification of Closure

The Permittee shall notify the Secretary in writing at least 45 days prior to the date on which he expects to begin closure of any of the facility as required by HWMR-6, Pt. V, § 264.112(d).

II.L.4.    Time Allowed For Closure

After receiving the final volume of hazardous waste, the Permittee shall treat or remove from the unit or facility all hazardous waste and shall complete closure activities in accordance with HWMR-6, Pt. V, § 264.113 and the schedules specified in Permit Attachment F (the Closure Plan).

II.L.5. Disposal or Decontamination of Equipment, Structures, and Soils

The Permittee shall decontaminate or dispose of all contaminated equipment, structures, and soils, as required by HWMR-6, Pt. V, § 264.114 and Permit Attachment F (the Closure Plan).

II.L.6. Certification of Closure

The Permittee shall certify that the facility has been closed in accordance with the specifications in the Closure Plan, as required by HWMR-6, Pt. V, § 264.115.

II.M. REQUIREMENTS FOR RELEASES

II.M.1. Releases from the Container Storage Area

If, based on information contained in reports required by Module I, Permit Conditions IE.13.a., b. and d., the Secretary determines that a release from the container area is of such a quantity, duration or repeated occurrence that further assessment is required, he may direct the Permittee to conduct the sampling and analysis required pursuant to HWMR-6, Pt. IX, sec. 270.14(d).

II.M.2. Releases from Newly Identified Solid Waste Management Units (SWMUs)

For newly identified SWMUs, the Permittee shall fulfill the requirements of Module IV Permit Condition IV, E.



**MODULE III**  
**CONTAINER STORAGE**

## MODULE III - CONTAINER STORAGE

### III.A CONTAINER STORAGE - MODULE HIGHLIGHTS

- III.A.1 This permit authorizes storage of hazardous wastes in containers in a warehouse building and an outdoor storage area, both equipped with secondary containment.
- III.A.2 The container storage warehouse, staging area, and outdoor storage area are comprehensively described in Permit Attachment B. Plans may be found on pages B-18 and B-19 of Attachment B.
- III.A.3 The Permittee will store waste in containers equivalent to the containers specified for each waste by the U. S. Department of Transportation (DOT) regulations, set forth in Title 49 of the Code of Federal Regulations, Part 173 (49 CFR 173). These containers will meet or exceed the requirements for strength and integrity specified by DOT at 49 CFR 178 for each class of container.

### III.B PERMITTED AND PROHIBITED WASTE

- III.B.1 The Permittee may store at the facility only the kinds of hazardous wastes identified in Permit Attachment G (Part A of the permit application.) The Permittee must apply for and receive a permit modification prior to storing any hazardous waste described by an EPA waste code not found in Permit Attachment G.
- III.B.2 If the amount of any waste, as identified by EPA waste code, handled in a calendar year exceeds the amount listed for that waste code in Permit Attachment G, the Permittee shall submit a report explaining the situation to EID and, if the increase in annual quantity is expected to be repeated, shall submit a revised Part A form by March 1 of the following year. The revised Part A will replace Attachment G and become part of this Permit.
- III.B.3 The Permittee shall comply with Permit Conditions III.B.3.a through c below regarding storage in containers of wastes identified in HWMR-6, Part VIII, §§ 268.10, 268.11, and 268.12 as being subject to the restrictions on land disposal set

forth in HWMR-6, Part VIII, Subpart C. The same conditions shall be imposed on the storage of any non-waste material in the storage facility, and on wastes that may become prohibited or restricted from land disposal by the New Mexico Hazardous Waste Management Regulations during the life of this Permit.

III.B.3.a.

i. Waste shall be stored for no longer than one year from the date of its first receipt by the Permittee, unless

ii. The Permittee furnishes proof to the Secretary that such storage for a period in excess of one year is solely for the purpose of accumulation of such quantities as are necessary to facilitate proper recovery, treatment or disposal.

III.B.3.b.

Each container must be clearly marked as to its contents and the date each period of accumulation begins.

III.B.3.c.

Hazardous wastes meeting the treatment standards in HWMR-6, Part VIII, §§ 268.41, 268.42, and 268.43 are not subject to the storage prohibition in Permit Condition III.B.3.a above.

III.C                    CONDITION OF CONTAINERS

If a container holding hazardous waste is not in good condition (e.g., it exhibits severe rusting or other visible structural defects) or if it begins to leak, the Permittee shall transfer the hazardous waste from such container to a container that is in good condition, or otherwise manage the waste in compliance with the conditions of this Permit. (HWMR-6, Pt. V, § 264.171)

III.D                    COMPATIBILITY OF WASTE WITH CONTAINERS

The Permittee shall assure that the ability of the container to contain the waste is not impaired by any incompatibility with its contents, as required by HWMR-6, Pt. V, § 264.172.

III.E                    MANAGEMENT OF CONTAINERS

The Permittee shall keep all containers closed during storage, except when it is necessary to add or remove waste, and shall not open, handle, or store containers in a manner which may rupture the container or cause it to leak. (HWMR-6, Pt. V, § 264.173)

III.F                    INSPECTION SCHEDULES AND PROCEDURES

The Permittee shall inspect the container area daily when it is in use, and at least weekly regardless of use, in accordance with Permit Attachment C (Procedures to Prevent Hazards) to detect leaking containers and the deterioration of containers and/or of the containment system caused by corrosion or other factors. (HWMR-6, Pt. V, §§ 264.15(b) and 264.174)

III.G                    CONTAINMENT SYSTEMS

The Permittee shall maintain the containment system in a leakproof and fully operable condition in accordance with the plans and specifications contained in Permit Attachment B (HWMR-6, Pt. V, § 264.175)

III.H                    RECORDKEEPING

The Permittee shall place the results of all waste analyses and trial tests and any other documentation showing compliance with the requirements of Permit Conditions III.K.1 and III.K.2 and HWMR-6, Pt. V, §§ 264.17(b) and 264.177 in the facility operating record. (HWMR-6, Pt. V, § 264.73)

III.I                    CLOSURE

At closure of the container area, the Permittee shall remove all hazardous waste and hazardous waste residues from the containment system, in accordance with the procedures in Permit Attachment F (the Closure Plan). (HWMR-6, Pt. V, § 264.178)

III.J                    SPECIAL PROVISIONS FOR IGNITABLE OR REACTIVE WASTE

III.J.1                The Permittee shall not locate containers holding ignitable or reactive waste within 15 meters (50 feet) of the facility's property line. (HWMR-6, Pt. V, § 264.176)

III.J.2 The Permittee shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste, and shall follow the procedures specified in Permit Attachments B and C for this purpose. (HWMR-6, Pt. V, § 264.17(a) and 264.176)

III.K SPECIAL PROVISIONS FOR INCOMPATIBLE WASTE

III.K.1 The Permittee shall not place incompatible wastes, or incompatible wastes and materials, in the same container. (HWMR-6, Pt. V, § 264.177(a))

III.K.2 The Permittee shall not place hazardous waste in an unwashed container that previously held an incompatible waste or material. (HWMR-6, Pt. V, § 264.177(b))

III.K.3 The Permittee shall separate containers of incompatible wastes as required by HWMR-6, Pt. V, § 264.177(c).

**MODULE IV**  
**HSWA CONDITIONS**

**PERMIT ATTACHMENT A**

**WASTE ANALYSIS PLAN**

## WASTE ANALYSIS PLAN

This section describes the parameters of concern for waste that will be stored at the TSDF. The rationale for selection of these parameters, sampling methods, analytical protocols, and frequency of analysis are also described.

Wastes stored at the TSDF are derived from generating sources at Holloman AFB. Off-site wastes are not accepted for management at the facility. Each movement of waste from each generating source must be accompanied by a completed DD Form 1348-1. This form identifies the generating location, the material from which the waste is derived, the DOT shipping code, and the DOT shipping name. Additionally, DD Form 1348-1 provides a description of the waste in terms of the EPA Hazardous Waste Number and approximate composition. The turn-in document must be signed and codified by the generator as accurate in its description of the waste. Figure A-1 provides an example of a completed turn-in document (DD Form 1348-1).

Prior to movement of the waste from the accumulation point, each container is visually inspected by the Holloman AFB Environmental Planning Branch for any sign of deterioration. After the exterior of the container has been inspected to ensure that the container is in sound condition, the container may be opened for visual inspection of its contents. The observed waste must be consistent with the description of the waste provided by DD Form 1348-1 and the container's "Hazardous Waste" label or the waste will not be moved to the TSDF. Furthermore, the information provided by the hazardous waste warning label and by DD Form 1348-1 must be in agreement before the waste may be moved to the TSDF.

Upon arrival at the TSDF, a similar inspection of the container, warning label, and DD Form 1348-1 is performed. The results of this inspection must also verify the accuracy of the documentation, appropriateness of the container, and that the container is in sound condition before the waste may be placed in storage. If any discrepancy is discovered in this chain-of-inspections from accumulation to the TSDF, the waste must be sampled to determine its characteristics and to define the concentration of hazardous constituents that may be present.

In the event a discrepancy is discovered in the chain-of-inspections the material would be sampled by bioenvironmental engineering. The sample would be sent to the Occupational and Environmental Health Lab (OEHL) in San Antonio, Texas, or to a base contracted laboratory. During the time the base is awaiting analysis, this material would be stored at one of the two 90 day storage areas at Holloman AFB.

As indicated previously, the feed materials from which these wastes are derived are specified by MILSPEC and TO. These systems ensure that limited variation exists between the feedstocks that are supplied by different manufacturers for a given unit operation. The detailed operating practices specified by the TOs limit the variations in procedures and, in combination with the MILSPEC system, provide a reasonable degree of consistency in the wastes generated within any mission-related function. Additionally, the extensive testing requirements imposed by AFLC prior to approval of a TO, limit changes to the TOs and the introduction of new materials into the aircraft maintenance community. Thus, over any given period of time, the waste streams generated by these operations are unlikely to differ significantly. Concentrations of specific constituents may vary within certain ranges, but the actual constituents, physical form, or characteristics of these wastes are not expected to change.



Accordingly, process-related data and the limited variations within the system combine with the cited inspection to ensure that wastes are adequately characterized to allow proper management at the TSDF. In part, the generator data and inspection efforts operate as surrogate waste analysis for each waste movement. However, waste analysis, as described in the remainder of this section, is periodically performed to confirm the generator data, determine the applicability of land disposal restrictions, and resolve discrepancies related to poor or improper waste characterization.

#### PARAMETERS AND RATIONALE

Table A-1 provides the parameters of concern for each type of waste within the general categories previously identified. These parameters were generally selected to: (1) confirm process-based characterization of the wastes, (2) determine applicability of land disposal restrictions, (3) ensure proper management at the TSDF, (4) provide preliminary data relative to the eventual disposition of the waste such as incineration or treatment, and (5) resolve discrepancies between inspections and generator characterization, if necessary.

Three parameters of concern are determined by visual inspection for all waste streams and, therefore, are not presented in Table A-1. Characterization of wastes according to physical form, phase destruction, and appearance (i e., color, solids, odor, etc.) are recorded as part of the periodic waste analysis and determined for each container prior to movement. As such, these parameters serve as crude "fingerprint" parameters to identify waste that may be poorly characterized by the generating function.

In addition to the parameters that are determined by visual observation, two parameters are determined quantitatively for the majority of waste that will be accepted by the TSDF. These parameters include specific gravity and total solids. Specific gravity is determined to define the flow characteristics of the waste and its buoyancy relative to water, which are necessary data for proper emergency response. Knowledge of solids concentrations is necessary for proper container management and to determine the applicability of the land disposal restrictions.

Spent nonhalogenated solvents from degreasing are characterized for the general parameters described above to support proper management. Flashpoint, EP toxicity, and metals analysis are performed to determine if the waste is characteristically hazardous, define separation in storage, and to determine if the land disposal restrictions are applicable. Certain metals listed in Table A-1 are expected to result from processing alloys that contain the metals as alloying agents. Both volatile and semivolatile organic analyses are performed to ensure that listed solvents (F001-F005) have not been mixed with solvents that are only characteristically hazardous in the feedstock condition, and certain parameters total organic halides (TOX), total sulfur (S), Btu values are determined for support and treatment alternatives.

**Table A-1 Parameters of concern for wastes managed at  
the Defense Reutilization Marketing Office Hazardous Waste  
Storage Facility**

Category of waste	Type of waste	State <sup>b</sup>	Parameters of concern <sup>c</sup>
Spent nonhalogenated solvents	Spent naphthas	L	1,2,3,6,7,8,9,12,13,14
	Spent naphthas	L	1,2,3,6,7,8,9,12,13,14
	Spent F003/F005 mixture	L	1,2,3,6,7,8,9,12,13,14
	Spent toluene	L	1,2,3,6,7,8,9,12,13,14
Spent halogenated solvents	Dichlorobenzene	L	1,2,6,7,8,9,12,13,14
	Trichloroethane	L,SL	1,2,6,7,8,9,12,13,14,16
	Trichloroethane/Freon mixture	L	1,2,6,7,8,9,12,13,14
Spent surface solutions	Spent alodine and rinses	L	2,4,5,6,7,11
	Spent chromate pickling agent	L	2,4,6,7
	Spent ethanalamine	L,SL	1,2,3,4,6,7,9,12,13,14,15,16
	Spent caustic (descaler)	L,SL	1,2,4,6,7,15
	Spent permanganate	L,SL	1,2,4,6,7,15
Paint-related waste	Spent phosphoric acid	L,SL	1,2,4,6,7,15
	Spent cleanup thinners	L,S	1,2,3,6,7,8,9,12,13,14,15,16
	Particulate filters	S	6,7,8,9,12,13,14,16
Spent stripping waste	Miscellaneous solid waste	S	6,7,8,9,12,13,14,16
	Nonphenolic gel stripper	L,SL	1,2,3,4,6,7,8,9,12,13,14,15,16
	Phenolic gel stripper	L,SL	1,2,3,4,6,7,8,9,12,13,14,15,16
	Tank type stripper	L,SL	1,2,3,4,6,7,8,9,12,13,14,15,16
Plating waste	Stripping rinsewaters	L,SL	1,2,4,6,7,8,9,13,14,15,16
	Spent plating bath and sludge	L,SL	1,2,4,5,6,7,11,15

Table A-1 Continued

Category of waste	Type of waste	State <sup>b</sup>	Parameters of concern <sup>c</sup>
Plating waste (continued)	Cd stripping solution	L,SL	1,2,4,5,6,7, 11,15
	Rinsewaters	L	1,2,4,6,7,11
Inspection/Calibration wastes	Freon-113	L	2,6,7,12,13
	Mercury	L	2,6,7
	Magnetic particle solution	L,SL	1,2,3,6,7,8, 12,13
	Dye penetrant developer	L	1,2,3,6,7,8, 9,12,13
	Refrigerants	L	2,6,7,8,12,13
Photographic waste	Silver recovery units	SL	1,2,4,6,7
Hospital waste	Miscellaneous U or P	S,L	NA <sup>d</sup>
Electrical devices	Polychlorinated biphenyl (PCB) capacitors	L,S	6,8,10,12,13
	PCB transformers	L,S	6,8,10,12,13
	Miscellaneous items	L,S	6,8,10,12,13

<sup>a</sup>All wastes are characterized according to phases, physical state, and appearance by visual inspection as part of the periodic waste analysis for each container prior to transfer.

<sup>b</sup>L - liquid; S - solid; SL - sludge.

<sup>c</sup>Parameters of concern apply to all phases unless otherwise specified. Parameters of concern are identified by the key presented below.

- 1 - total solids (only if solids expected).
- 2 - specific gravity.
- 3 - flashpoint (by Penskey-Martens Closed Cup).
- 4 - pH.
- 5 - reactivity (generally applicable to CN-bearing wastes).
- 6 - metals (As, Ba, Cd, Cr, Pb, Hg, Se, Ag, Ni, Ti, Sb, Bi, Zn, Cu, Sn, Sc).
- 7 - EP Toxicity.
- 8 - volatile organics (includes halogenated, nonhalogenated, and aromatic).
- 9 - semivolatile organics (includes halogenated and nonhalogenated)
- 10 - polychlorinated biphenyls (PCB 1016, 1221, 1232, 1242, 1248, 1254, and 1260).
- 11 - total cyanides.
- 12 - thermal content (Btu).
- 13 - total organic halides (TOX).
- 14 - total sulfur(S).
- 15 - free liquids (sludges only).
- 16 - toxicity characteristic leaching procedure (TCLP).

<sup>d</sup>Not applicable.

Spent halogenated degreasing solvents are characterized for parameters similar to nonhalogenated solvents with the exception that flashpoint is not determined. Flashpoint determination is inapplicable to these chlorinated compounds because these solvents are listed as F001 or F002 and their halogenated state generally renders these materials nonignitable. The rationale for selection of these parameters is equivalent to that provided for spent nonhalogenated solvents.

Spent alodine and chromate pickling solutions are characterized according to the general parameters (solids and specific gravity) pH, metals, and EP toxicity. These parameters are determined to define response actions, determine hazardous waste characteristics, and delineate the applicability of the land disposal restrictions. Spent alodine is also characterized in terms of cyanide content and reactivity, although the ferrocyanide complex known to present is not expected to be quantified by standard methods for total or amenable cyanide.

Spent solutions from the Metal Cleaning Plant are characterized according to the general parameters (solids, specific gravity), pH, metals, and EP toxicity. These parameters are necessary to define proper segregation during storage, aid response actions, and determine the applicability of the land disposal restrictions. The sludge phase of these wastes is also characterized for free liquids [Gravimetric Moisture and Paint Filter Liquids Test (PFLT)] to determine if the 40 CFR 268 restrictions are applicable in the event the sludge is separately containerized. Spent ethanolamine is also characterized for flashpoint, volatile organic compounds (VOCs), and semivolatile organics. Although the product flashpoint is >200 degrees F and VOCs are not present, these parameters are determined to ensure that deterioration during use or mixing with listed solvents has not occurred.

Paint-related solvents are characterized for the general parameters and flashpoint to ensure proper segregation during storage and enhance response actions. Metals analysis and EP toxicity analysis are performed for both phases to define other hazardous waste characteristics and proper disposition under the land disposal restrictions and solvent restrictions. Certain metals indicated in Table A-1 are expected to be present from paint pigments. Both volatile and semivolatile organic analyses are performed to define the concentration of bulk solvents and contaminants present from diluents in the paint. Thermal value, sulfur, and TOX are determined to support treatment alternatives. Particulate filters and other solid wastes from painting are similarly characterized to define EP toxicity and the concentration of solvents retained in the discarded materials.

Spent stripping wastes are characterized for general parameters, pH, metals, EP toxicity, and flashpoint to provide proper segregation, support response actions, and to determine if these listed wastes are characteristically hazardous or subject to California List restrictions. VOCs and semivolatiles were selected because these constituents are known to be present in the input material. Thus, organics analyses are performed to define the alteration of feed concentration that occurs during use. Treatment-based parameters are also specified for this waste stream to support selection of proper end destruction techniques. Organics analysis, metals analysis, and treatment-based parameters were selected for rinsewaters to define hazardous waste characteristics, applicability of the land disposal restrictions, and support and treatment methods.

Plating waste parameters of solids, specific gravity, pH, reactivity and total cyanide were selected to ensure proper segregation during storage. Cyanide, metals, and free liquid analyses were selected to define the applicability of the land disposal restrictions.

Limited analysis is required for the majority of waste generated by inspection/calibration activities. Although metals and VOCs are specified for these waste streams, their presence is either known from product data or is not expected to occur. In general, these parameters serve to confirm that mixing with other waste has not occurred. Flashpoint is specified for two waste streams because of variations that may occur in the specified materials although the majority of the magnetic particle solutions are nonignitable. Dye-penetrant developers are expected to exhibit EP toxicity but not ignitability based on the systems currently used. However, ignitability is specified as a parameter because if conversion of the entire process to a nonaqueous system occurred, that developer is known to contain isopropyl alcohol.

Photographic waste parameters include general characterization and pH to ensure proper management. Metals analysis and EP toxicity are specified to determine if these items are defined as recyclable materials subject to the special requirements for secondary materials from which precious metals are reclaimed. Land disposal restriction parameters are not specified because these materials are reclaimed at an off-site location.

Parameters are not specified for base supply or hospital waste because these items are discarded commercial products. These items are known to be regulated on the basis of their initial composition and further analysis is redundant.

Although the presence of listed solvents or EP metals is not expected for PCB-containing items, these parameters are included to define applicability of the land disposal restrictions. Flashpoint is not included because these items are formulated to resist heat and are not ignitable by nature. PCB concentrations and other parameters are specified to define applicable TSCA disposal techniques.

No test methods are defined for determination of the characteristics of reactivity. For the wastes that are managed at the TSDF, determination of this characteristic is generally by quantitation of cyanide or sulfide-bearing waste streams that may liberate toxic gases under acidic or alkaline conditions.

The metals specified in Table A-1 include EP toxic metals, nickel, and thallium that are regulated under land disposal restrictions, and certain other metals that are considered to be present from paint pigments or alloying agents that are processed by the TO specified operations. The VOCs, semivolatile, and PCB parameters include those analytes listed under the relevant EPA SW-846 test method specified in the subsequent section.

PFLT, used for metals and cyanide determinations relative to land disposal restrictions, is specified for wastes that exhibit both liquid and sludge phases. This analysis is unnecessary for wastes that are totally liquid or solid in form. Actual performance of the test is restricted to sludge phases that are managed separately from associated liquids. The TCLP, used for determination of the F001-F005 restrictions, is specified for wastes suspected of containing these listed solvents and that are comprised of both liquid and

Table A-2 Test methods for Defense Reutilization Marketing Office managed waste

Parameter or analyte	Phase <sup>a</sup>	Sample preparation method	Analytical method
Total solids	L,SL	ASTM <sup>b</sup> D1889-78	ASTM 1889-78
Specific gravity	L,SL	Gravimetric or 213E	Gravimetric or 213E
Flashpoint	L	NA <sup>b</sup>	1010
pH; corrosivity	L	NA	1110, 9040
	SL	9095	9040
Reactivity	L,SL	SW-846, Sect. 7.3	SW-846, Sect. 7.3
Metals <sup>c</sup>	L	3010	6010 or 7000 series
	OM	3030	6010 or 7000 series
	SL,S	3050, 9095	6010 or 7000 series
Mercury	L	7470	7470
EP Toxicity	L	3010,7470	6010; 7470
	SL	1310	1310
	S	1310	1310
	OM	1330	1330
Halogenated volatiles <sup>d</sup>	L	5030	8010,8240
	S,SL	5030, TCLP <sup>b</sup>	8010, 8240
Nonhalogenated volatiles	L	5030	8015, 8240
	S,SL	5030, TCLP	8015, 8240
Aromatic volatiles <sup>d</sup>	L	5030	8020, 8240
	S,SL	5030, TCLP	8020, 8240
Nonhalogenated semi-volatiles <sup>d</sup>	L	3510, 3520	8250
	S,SL	3540, 3550, TCLP	8250
Halogenated semi-volatiles <sup>c</sup>	L	3510, 3520	8250
	L	3510, 3520	8250
	S,SL	3540, 3550, TCLP	8250
Polychlorinated biphenyls	L	3510, 3520	8250
	S	3540, 3550	8250
Cyanide	L	9010	9010
	SL	9095	9010
Thermal content		ASTM D240-87	ASTM D240-87
Total organic halide		9020, 9022	9020,9022
Sulfides		9030	9030
Sulfates		9035, 9038	9035, 9038
Free liquids		9095	9095

<sup>a</sup>L - liquid; S - solid; SL - sludge; OM - only matrix.

<sup>b</sup>ASTM - American Society for Testing and Materials; NA - not applicable; TCLP - toxicity characteristic leaching procedure.

<sup>c</sup>Metals include those specified by Table C-3.. Analysis is by ICP (Method 6010) or appropriate 19A technique (i.e., 7420 for Pb).

<sup>d</sup>Quantitation of trace organics in solvent matrices or certain nonvolatiles (i.e., phenyl cellosolve) may require GC-FTIR technique.

solid phases or that are in solid form. The TCLP is not specified for solvent wastes that are essentially liquid because the test procedure considers the actual liquid waste to be the extract used for subsequent analysis.

#### TEST METHODS

Samples that are collected from containers or directly from process locations are prepared according to the appropriate sample preparation protocol from EPA's SW-846, Test Methods for Evaluating Solid Waste, 3rd Edition. Certain parameters specified in the preceding section are not covered by EPA's SW-846 protocols for sample preparation. Among these parameters are total solids and BTU content that are determined by the American Society for Testing and Materials (ASTM) methods. These samples are prepared for analysis by techniques specified by ASTM D1889-78 for total solids and ASTM D240-87 for thermal value. Specific gravity is determined by gravimetric technique or Method 213E from Standard Methods for the Examination of Water and Wastewater, 15th Edition.

Samples that are characterized for halogenated, nonhalogenated, or aromatic VOCs are prepared according to EPA's SW-846, Methods 5020 or 5030. Semivolatile organics and PCB sample preparation is performed according to Methods 3510 or 3520 for liquid phases and according to Methods 3540 or 3550 for solids or sludges. Sample preparation for metals analysis is performed according to Methods 3010, 3030, or 3050 depending on the sample matrix.

Standard EP toxicity preparation is used unless the sample contains substantial oil and grease, which requires preparation by Method 1330. The PFLT used to determine land disposal applicability is specified only for waste streams that contain significant sludge quantities such that the sludge may be separately handled. The toxicity characteristic leaching procedure (TCLP) protocol is specified only for those waste streams that contain significant solids and that are suspected to contain listed solvents. This restriction is applicable because the TCLP considers liquid waste to be the extract.

The sample preparation and analytical protocols used to determine the parameters of concern are specified in Table A-2. If a protocol is specific to a sample phase, this requirement is indicated. All analytical methods are performed according to EPA's SW-846 protocols except specific gravity, total solids, and thermal value. These parameters are determined according to the methods referenced in the preceding text.

Characterization of trace concentration organics in solvent matrices (such as paint diluents in spent thinners) is generally performed by gas chromatography (GC) methods because of tendencies to saturate detectors in GC/mass spectroscopy (MS) techniques. If sufficient dilution is provided to prevent saturation, trace contaminants are often masked from quantitation. If these circumstances occur and quantitation of the trace organics is considered necessary, quantitation must be performed by EC-FTIR techniques. As a general rule, only the bulk or primary solvent constituents are of concern and either GC or GC/MS methods are adequate for this characterization.

Samples are generally sent to the USAF Occupational and Environmental Health Laboratory (OEHL). The OEHL is a federally-funded laboratory with quality assurance (QA)/quality control (QC) programs based on EPA's SW-846 requirements and the Superfund Contract Laboratory Program (CLP). A significant portion of the OEHL work is contracted to other analytical laboratories that are

required to be certified under Superfund CLP standards. Thus, both the OEHL and its support laboratories have established QA/QC programs and properly trained analysts that comply with the stringent EPA requirements.

Recently the USAF has provided its components with the option of direct contracting for analytical support services. If local contract support is established for the TSDF, the qualifications of this laboratory, copies of the QA/QC program, and certification that EPA's SW-846 QA/QC requirements are followed will be obtained. This documentation will be maintained as part of the operating record.

#### SAMPLING METHODS

Sampling for the parameters specified in the preceding sections is performed by techniques that are dependent upon the phase distribution of the required sample. As indicated in previous sections, wastes may consist of liquids, sludges, solids, or a combination of these phases.

Container sampling for liquids is performed by use of an all-glass COLIWASA sampler as approved in EPA's SW-846. If liquid samples are withdrawn from the process vats, this technique is also used.

The use of the COLIWASA sampler provides a representative vertical cross-section of the drum or vat contents and, therefore, addresses anomalies that arise due to vertical stratification. Horizontal stratification of wastes is not anticipated for free liquid wastes. However, to ensure that representative samples are withdrawn from a horizontal cross section, the sampler is inserted into the liquids from various angles of approach.

Sample withdrawal by COLIWASA is performed by slow insertion of the device through the liquid column with the inner-glass plugging mechanism in the open position. After the lower end of the sampler has passed sufficiently into the vat, the bottom of the sampler will be closed to allow withdrawal of a representative cross-section of the liquids. The sample is discharged to a pre-cleaned glass or stainless-steel container and the procedure is repeated until sufficient sample volume has been collected.

The required sample volumes, container, and preservation techniques are defined by the OEHL Sampling Guide. These requirements are summarized for convenience.

Samples for metals analysis are collected in 1000-mL polyethylene containers. Preservation for metals is not performed for concentrated waste but is performed for samples that are primarily aqueous. The only samples that require preservation for metals are (1) alodine rinsewaters and (2) rinsewaters from paint stripping. Although plating rinses could be preserved, it is considered preferable to reduce holding time rather than acidify cyanide-bearing wastes. Preservation of the two samples above is accomplished by addition of HNO<sub>3</sub> to pH <2. Liquid samples collected for cyanide analysis are placed in 500 mL plastic containers. These samples are preserved to pH >12 with NaOH. Preservation for CN is performed on all waste stream samples for which this analyte is specified.

Samples collected for EP toxicity or TCLP analysis are placed in 1000-mL glass sample containers. Sample containers for TCLP analysis must have Teflon seals and the container must have no headspace.



VOCs are collected in 40-mL vials with Teflon septum. Semivolatiles are collected in 1000-mL amber glass containers with Teflon-lined closures. Preservation of concentrated waste samples or aqueous samples for organics is not performed. However, these samples are immediately cooled to 4 degrees C.

Two techniques are used for sludge phase samples. If the sludge is relatively viscous, a precleaned section of glass tubing will be pushed slowly through the sludge layer. The viscous sludge will create a plug in the bottom of the tube allowing withdrawal of a vertical cross-section. Horizontal stratification is addressed by sample withdrawal from various locations. Upon withdrawal, the glass tube is discharged over a precleaned glass tray by decantation of liquids and extrusion of the plug with a new wooden dowel.

If the sludge is not sufficiently viscous or is a floc, the sample is withdrawn by a scoop that is passed through the sludge phase. Liquids that are simultaneously withdrawn are decanted back to the process vessel or waste container. The remaining sludge is transferred to a precleaned glass tray and carefully distributed prior to placement in the sample container. Volatile organic sludge samples collected from rinsewaters are not distributed before placement in sample containers.

Sludge samples are collected in 8 ounce wide-mouth glass jars that are precleaned to EPA protocols. Sludge samples collected for VOC analysis from aqueous waste are placed in containers with teflon-lined closures and filled to zero headspace. Sludge samples are not preserved but are cooled to 4 degrees C.

Solid phase samples are collected according to the random sampling methodology described in EPA 1530-sw-84-012, "Waste Analysis Plans - A Guidance Manual". This sampling methodology uses a random number table to select grid locations for sampling. The number of samples is determined by application of ASTM D140-70, Standard Method of Sampling Bituminous Materials. For particulate filter wastes, a 4 by 4-inch sample is cut with precleaned scissors from each specified location. These samples are not preserved and are containerized in 8 ounce glass jars.

If decontamination of sampling equipment is required, it will be performed at the Bioenvironmental Engineering Office. Decontamination is performed by cleaning with a nonphosphate detergent and rinsing stepwise with deionized water, methanol, and deionized water.

After collection of each sample, the container is tightly closed, rinsed with water, and the mouth is taped shut. A band of evidence tape is placed over the lid to indicate if tampering during shipment occurs. A sample tag is attached to the face of the container. For each sample collected, the sample identification number, description, sampling location, and date that corresponds to the sample tag are recorded in a log.

After the samples are tagged, each container is placed in a polyethylene bag that is taped closed. The bagged sample containers are subsequently placed in an ice chest that contains bagged ice and the void spaces are filled with vermiculite.

Chain of custody for sample shipment is maintained by DD Form 1149. This form is used to record the sample identification numbers, sampling date, sampling location, analytes of interest, type of containers in the shipment, and the number of containers in the shipment. This form must be signed by the sampler, each person that will handle the sample shipment, and the designated party of the receiving laboratory. Upon completion of the chain of custody form, this document is secured to the shipping chest. The shipping chest is taped closed, evidence tape is attached, and the chest is labeled according to DOT requirements.

#### FREQUENCY OF ANALYSIS

Each category of waste stream managed at the TSDF is generated by mission-related activities at Holloman AFB. As previously indicated, both the input materials and processes that generate this waste are well defined by the MILSPEC and TO systems. Thus, the generator-supplied data concerning input materials, and generating locations serve as the general waste analysis. Detailed characterization is performed under four circumstances.

Wastes within each category from each generating location of Holloman AFB are characterized in detail each calendar year. This characterization is conducted to confirm the generator-supplied data and define the applicability of the land disposal restrictions. Wastes such as the spent plating solutions that are generated on an infrequent basis are sampled directly from the process vessel during this annual event. The results of these analyses are maintained by either the Holloman AFB Environmental Coordinator, the TSDF, and/or the generating location. The consistency of the operating practices and input materials previously described allows this characterization to be representative.

Prior to waste movement, each container is inspected to ensure the soundness of the container and verify that the contents match the turn-in documentation. If any discrepancy is found between the observed contents and the documentation, the waste is analyzed prior to transfer to the TSDF. This restriction serves as a boundary condition on the waste accepted by the TSDF.

The TSDF manifests waste to a commercial treatment, storage, or disposal facility (TSDF) on the basis of the annual characterization and the generator-supplied data. The receiving TSDF characterizes each waste movement through a random, systematic, or stratified technique. If any discrepancies are discovered, the proper notifications are provided to the TSDF, and, if necessary, to the appropriate EPA Regional Administrator. Upon receipt of a manifest discrepancy, the TSDF notifies Holloman AFB and the function that generated the waste.

If any manifest discrepancy occurs concerning the characteristics or constituents of the waste, each container of waste generated by the responsible function must be sampled prior to movement to the TSDF. This sampling order remains in effect for a period of two years and serves as incentive for careful characterization by each generating function.

Finally, detailed waste characterization is required if either the input materials or generating processes are changed. The primary cause for this type of sampling event is a change in input material or addition of a new material to the QPL. Any process area that receives a previously unused feedstock must notify the Holloman AFB Environmental Coordinator and Bioenvironmental Engineer. The MSDS for this material must be obtained and compared to other QPL

materials under the designated MILSPEC. If any significant difference exists between the new material and the previously used material, the waste must be analyzed prior to movement to the TSDF. Before the waste is transferred to the TSDF, either the MSDS or the analytical results must be provided.

#### WASTE CHARACTERISTICS FOR LAND DISPOSAL RESTRICTIONS

Data must be provided by the generator to the TSDF for each waste that is stored, treated, or disposed at the facility to determine if the waste is restricted from land disposal. This data may be provided as analytical results or based upon process knowledge. If generator-supplied data is used, all supporting data must be maintained in the operating record.

The waste analysis plan previously discussed presented the parameters of concern for each waste stream and the protocols used to characterize these wastes. As indicated in this plan, the protocols required to determine the applicability of land disposal restrictions is a required portion of the analytical routine.

Furthermore, each movement of waste to the TSDF must be accompanied by a generator certification. This certification identifies the restricted constituents present in the waste and concentrations that are expected to exceed restriction levels. The certification must be signed and dated by the generator before the waste is accepted by the TSDF. This documentation is also maintained as part of the operating record and, because the TSDF does not perform any treatment, a copy of this document is provided with each manifested shipment.

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**HAZARDOUS WASTE**

Fig. A-1 Example of completed turn-in document DD Form 1348-1.

**PERMIT ATTACHMENT B**

**CONTAINER MANAGEMENT**

## CONTAINERS

The TSDF provides long-term storage for waste streams identified elsewhere in this Permit. This attachment provides a more specific description of the TSDF and a general operation description. A site plan is provided in Figure B-4 (on page B-19 at the end of this attachment), and a floor plan of the storage building is provided in Figure B-5 (page B-20).

The staging area at the TSDF consists of a concrete pad with dimensions of 30 feet by 40 feet. This concrete pad was placed upon a 95% compacted subbase overlaid by 6 inches of granular fill. The pad and surrounding curb are developed from a continuous pour of Type V Portland cement reinforced with ASTM 615, Grade 60 rebar. The 28-day compressive strength of the concrete exceeded 4000 psi. The TSDF area is joined along its eastern edge by a ramp that slopes from the apex of the curb outward from the unit into the surrounding clear zone. This outer segment of the ramp is 12 feet long and 12 feet wide with a slope of 1 to 2%. An inner segment of this ramp extends from the apex of the curb approximately 4 feet into the staging area.

The staging area is sloped from side to center and from north to south to promote drainage to a sump located along the southeast side curb. This precast sump has dimensions of 2 feet x 8 feet x 4 feet to provide a capacity of approximately 420 gallons for retention of precipitation or spills in the staging area.

The staging area is used for initial receipt of waste from Holloman AFB. Each waste "shipment" received by the TSDF is temporarily retained in this zone to provide for prestorage inspection of containers and verification of the accuracy of the turn-in documentation as previously described. Although the combined capacity of the diked pad and sump exceeds 2500 gallons, the operating practices followed at the TSDF allow for staging a maximum of 20 containers or 1100 gallons total volume in this area.

The staging area is also used for transfer of waste to vehicles for off-site management. Transport vehicles do not enter the staging area beyond the ramp, as all transfer operations are performed by the EE specification (per 29 CFR 1910.178) forklifts. During these loading operations, the maximum container volume allowed within the staging area is also 20 containers of 1100 gallons total volume. An additional restriction for loading operations is that only one type of waste may be present in the staging area during the loading operation.

An undiked forklift ramp 14 feet long and 12 feet wide joins the staging area to the outdoor storage area located at the southeast end of the unit. This ramp is sloped to the temporary storage area for drainage purposes and extends approximately 4 feet into the outdoor storage boundaries. The outdoor storage area consists of a newly constructed pad and cover which was constructed on 95% compacted soil.

The outdoor storage area is a 100 foot by 50 foot covered concrete pad as shown in Figure 6 (page B-21). The floor of the storage area consists of a 6 inch thick concrete slab with W2.9 x W2.9 welded wire mesh reinforcement. This slab, monolithically poured, has 1/2 inch saw cut contraction joints as seen in Figure B-7 (on page B-22). To prevent any liquid from passing through, these contraction joints are filled with a cold poured joint compound in accordance with federal specification SS-5-200. The storage area pad is contained by a 6 inch high by 1 foot wide curb which extends along the perimeter of the pad and is open only at the forklift ramp entrance. This curb, reinforced with No. 4 continuous rebar, was constructed from a series of continuous pours such that no joint is formed between the pad and its curbing. The concrete and related work is mixed, placed, and cured in

accordance with "Building Code Requirements for Reinforced Concrete", ACI (American Concrete Institute) 318. All concrete has a specific minimum 28 day compressive strength of 4000 psi (pounds per square inch). The reinforcing steel conforms to the requirements of ASTM A615 and the welded wire mesh conforms to ASTM A185. The foundation and curb have a smooth trowel finish and are coated with a 30 ml. thick glass-filled epoxy coating to prevent any spills from reaching the concrete.

The storage pad's cover consists of a pre-engineered metal building. The structural steel is fabricated and erected in accordance with the American Institute of Steel Construction (AISC) "Manual of Steel Construction" Ninth Edition. All structural steel columns, beams, girts, and purlins are A36 steel. The design loads for the pre-engineered metal building consist of an 80 mph wind load, a 20 psf (pound per square foot) live load, and a seismic load for zone 1.

The roof of the storage area has an outside height of 12 feet with a 1 to 4 slope leading to a center height of 18 feet 3 inches as shown in Figure B-8 (page B-22). The roof, consisting of steel roof panels and a ridge cap along its center, is supported by 10 tapered columns which are X braced for lateral support. To combat precipitation the roof has gutters running the length of the building on both sides with down spouts located at each of the ten columns. The structure has no walls allowing for free air passage which provides both ventilation and a reduction of wind load on the structure.

Within the outdoor storage area, 60 container racks are double stacked along the east and west curbing while 60 container racks are placed in the center forming two rows. A layout of these container racks can be seen in Figure B-9 (page B-23). These container racks measure 50 inches by 50 inches and hold four 55 gallon drums. These racks are enclosed on three sides to prevent any drums from falling from the back or sides. To prevent the chance of spills outside the storage area every attempt will be made to keep regulated liquid wastes stored in the center two rows while reserving the racks along the east and west curbing for wastes other than regulated liquid.

The outdoor storage area is not fitted with any drainage sump. Precipitation that accumulates in this area or spills that occur may be removed by portable wet vacuums or pumps that can be brought to the location. The curbing along the storage area provides approximately 17600 gallons of containment which equates to over 350 drums of waste 90% full.

The majority of waste materials are stored in the metal storage building that joins to the staging area along its northwest edge. This structure has dimensions of 40 feet by 50 feet and is 14.5 feet in elevation at the apex of the roof. The building is divided into 18 separate storage cells that are designated for storage of separate types of waste. Each cell consists of a concrete floor and masonry walls, and a floor sump for retention of any spill. The exterior walls and roof of the building are constructed from 26-gauge corrugated, zinc-galvanized steel-sheet siding. The eastern and western walls are provided with floor-level vents to exhaust vapors that are heavier than air. Two entrances, provided with forklift ramps, are located along the southeast face of the building. The opposing face of the building is provided with two emergency egress doors.

The small addition to the southeast side of the main storage building is used for the storage of the forklift and other equipment. It is not used for storing hazardous wastes. In general it's construction details are very similar to those of the main building.

The base of the structures was developed on a 95% compacted subbase overlaid by well-graded sand and gravel fill that had 50% passage of a standard No. 10 U.S. series sieve. The concrete floor slab was constructed from a series of individual pours such that the slab, perimeter curb, and cell dividing wall curbs are monolithic within each pour. This slab was constructed from Type II (sulfate resistant) Portland cement, and designed for reinforcement by ASTM A615, Grade 60 rebar and welded wire fabric mesh placed within the concrete. The concrete slab has a thickness of 6 inches and the monolithically developed curbs extend 6 inches above the floor elevation.

Prior to placement of the pad, 20 precast concrete sumps were placed at the appropriate depth in the soil. These sumps were placed in such a fashion as to delineate the location of each of the storage cells. Additionally, two sumps were placed along either side of the planned entrances. Each precast sump is constructed of 4-inch thick concrete with No. 4 rebar cage tied on 12 inch centers. These catch basins have dimensions of 2 feet wide by 8 feet long and are 3.5 feet in depth to provide capacity of approximately 420 gallons. Unlike the catchment basin that is located in the staging area, the cold joint between the pours forming the floor slab and these sumps was not fitted with a 5-inch self expanding cork expansion joint. At the floor-level joint between the precast sumps and slab pours, a 1-inch wide and 1-inch deep rim was cut and filled with nonshrink grout to provide a continuous surface from floor to the rim of the sump.

No compensation for movement between the monolithic slab pours and the precast sumps was provided. A control joint is located between each sump such that the joint runs parallel to building length. Each control joint has a 2-foot section of No. 4 rebar between the sumps to reduce differential settlement between the individual floor pours. A blackout was developed above the control joint and runs lengthwise between the sumps in order to control crack formation. This blackout was subsequently filled with nonshrink grout.

Foundations were also placed prior to the series of monolithic pours from which the floor was developed. The rigid frame pedestals are located midlength of the structure and consist of two 5 foot by 5 foot concrete "footers" reinforced with No. 5 rebar cage. These pedestals were tied to compensate the beam. This beam spans the width of the structure at a depth of 2 feet and passes through each of the four center sumps at this depth. This tie beam was developed by cutting an 8 inch by 12 inch hole in the walls of each sump, placing a form the length of the beam, and completing the beam with a single concrete pour. The void between the tie beam and sump wall was grouted with nonshrink grout.

After construction of the foundations and tie beam, the compacted fill (sand and native soil) was brought to within 6 inches of the sump rim. The series of pours for floor construction were developed on this basis. As indicated, each pour butts directly to the sumps without an expansion joint. None of the pours were tied to the foundations and, therefore, the floor slab is isolated (or floats) from the footings. Partial support for the floor slab results from the direct joint to the sumps.

The floor plan for the TSDF is provided in Figure B-5 (p B-20). This plan indicates the demarcation of the building into 18 storage cells with the entrance to each cell fitted with a containment sump. As previously indicated, forklift ramps at both entrances located along the southeast wall are provided with floor sumps on either side of the ramps. Each sump is 2 feet x 8 feet x 4 feet in depth for a containment capacity of approximately 480 gallons.



Each storage cell has dimensions of 5 feet by 10 feet with segregation among the cells provided by masonry block walls. The innermost masonry walls are reinforced at intersections by No. 4 vertical rebar and backfilling of the block cells at the intersections. Each of these block walls is approximately 6 feet high and is constructed upon the 6-inch curb developed monolithically with the poured floor. Both the floor and 6-inch curb were sealed with a standard vinyl-acrylic lacquer-type sealant, but the block is not coated.

Each storage cell is designated for containment of a specific type of waste. Segregation among cells is provided to ensure that physical space separates incompatible wastes. The segregation of wastes among cells is subsequently discussed in future sections. The normal volume of wastes that may be placed in each cell is 330 gallons, with a maximum volume of 440 gallons.

Entrance to the storage building is provided by two forklift ramps and a single door located along the southeast side of the structure. An emergency eyewash and emergency alarm are located immediately inside the doorway. Two escape doors are located along the opposite wall. These doors cannot be opened from the exterior of the building, but only require pressure upon the locking bar to open from the building interior.

The building exterior walls are constructed of 26-gauge corrugated zinc-galvanized sheet steel siding. Each of the cells located along the northeast and southwest walls is provided with a 2-foot by 3-foot floor-elevation louvered opening that provides for ventilation of vapors that are heavier than air, in the event of a spill. Four 12-inch, frame-mounted, rotary roof ventilators are located along either side of the center beam to exhaust vapors that are lighter than air. The roof is also fitted with 10 skylights to allow operation without the use of electrical power. Roll-type doors are located along the forklift ramps; there are two escape doors; and a single locked entrance.

The building is supported on 5 square foot column footings tied together by an 8 inch by 12 inch tie beam that spans the building width. The main footings are reinforced with No. 5 rebar mat, dowels, and No. 4 rebar ties. The tie beam between the main footings is reinforced with two No. 4 reinforcing bars that extend into the column pedestals. The tie beam passes through the four center sumps at the 2 foot depth.

Corner pedestals are 2.5 foot foundations reinforced with No. 5 rebar. Additional building support is provided by two wind column foundations that are 4 foot by 4 foot pedestals reinforced with No. 5 rebar mat, dowels, and No. 4 rebar ties. The column base plates rest on a grout bed and are anchored by 2.75 inch A325 anchor bolts.

The 6-inch floor slab is a turndown slab with 5-inch self-expanding cork (ASTM D1752, Type III) for movement between the pedestal and the slab. This joint is sealed with nonshrink grout to prevent leakage of liquids at this point. The floor slab is isolated (not tied to) from the column foundations and, therefore, floats within the structure as a separate member. The 6-inch high curb, poured monolithically with the slab, acts as an additional seal against the escape of liquids and serves as the base for the siding. The structural specifications for the building required design for a roof line load of 20 pounds/square foot, wind load of 25 pounds/square foot and conformity to UBC Seismic Zone 2 standards.

This preengineered structure has typical features including I-beam supports, steel purlins to support the roof, and batt insulation. Steel girders, horizontally continuous between columns, provide additional stability to the building and support the interior siding.

A single 1.25-inch copper line is used to plumb water to the emergency eye wash and safety shower located immediately inside the normal access door. No drainage lines exit the building. If use of the shower is required, the water will be collected in one of the floor sumps. The electrical service inside the building is limited to explosion-proof lighting wired to a switch located along the exterior northeast wall and the fire alarm located at the entrance doorway. All electrical services are of intrinsically safe design.

#### CONTAINERS WITH FREE LIQUIDS

The wastes managed at the TSDF are primarily free liquids, although some waste streams contain significant solids and a few wastes are entirely solid in form. Although the physical form varies from 100% free liquid to wastes that are entirely solid, all wastes accepted by the TSDF are considered to be 100% free liquids. Management practices, subsequently described, are based on this premise.

#### DESCRIPTION OF CONTAINERS

Upon receipt of containerized waste from an accumulation point at Holloman AFB, the containers are placed in the staging area to facilitate inspection of the container, verify that the turn-in documentation is accurate, and ensure that the container is properly labeled. No container is accepted for storage if the contents cannot be verified, the container is not in sound condition, or the container is improperly labeled.

Selection of the proper container for management of the waste is the responsibility of the Holloman AFB Environmental Planning Branch and the base function that generates the waste. The TSDF will accept only new, reconditioned, or DRMO-certified usable DOT specification containers for the management of hazardous waste. DRMO-certified usable containers are containers that are in good condition and meet DOT specifications and are compatible with the material stored in it. If the waste contents specified in the turn-in document or the hazardous waste warning label are incompatible with the container that holds these wastes, the TSDF rejects the turn-in. Inspection to ensure compliance with this requirement is performed by TSDF personnel for each container received from Holloman AFB during the time the waste is held in the staging area.

The Holloman AFB Environmental Coordinator and generating function follow the DOT specification for selection of the proper container; i.e., 49 CFR 172.101 Hazardous Materials Table. This table provides a listing of DOT-specified containers for various wastes that are used for container selections. The selection chart also specifies the stock number that the waste is derived from, proper DOT name, DOT hazard class, and DOT code.

Three exceptions to this requirement are allowed by the TSDF. PCB items are accepted for storage upon receipt of the analytical results that indicate these items are TSCA regulated. Items such as transformers, capacitors, etc., are repackaged prior to arrival (if small) or are accepted as the entire item. If these items are received in such condition that leakage is evident, the PCB item, its contents, and any residues from cleanup of the leak are transferred to containers as required by 40 CFR 761-65(c)(5) and (6). The containers required in these circumstances are those under DOT specification 5, 5B, 6D, 17E, or 17C depending upon physical form. Similar actions are taken if the PCB item leaks during storage.

The remaining exceptions to this requirement involve certain recyclable materials. Silver recovery canisters are not packaged in containers other than the recovery unit containment. These items are sent off-site for recovery

of precious metals. Additionally, the TSDF collects spent lead-acid batteries for the purpose of reclamation off-site. Spent lead-acid batteries are collected until 45000 pounds are accumulated. At the point in time when this volume is accumulated, a contractor is scheduled to take the batteries to a reclamation facility. The TSDF does not require lead-acid batteries to be repackaged for acceptance. Persons that generate, collect, or store spent batteries, other than lead-acid batteries (i.e., Ni/Cd and lithium sulphur), manage them as a hazardous waste under 40 CFR 261.6(a).

If any container begins to leak during storage, the contents are transferred to a previously unused container of the appropriate DOT specification. Alternately, the container may be overpacked in a DOT salvage container and the voids filled with vermiculite or similar absorbent.

Certain other container acceptance criteria are imposed by the TSDF upon wastes generated at Holloman AFB. These include the physical condition of the container, container labeling, container marking, accuracy of the waste description, and that movement is accompanied by the required documentation. These requirements are discussed in the subsequent section.

#### CONTAINER MANAGEMENT

Proper container management practices followed at the TSDF may be divided into six general categories or standards that include:

- \* requirements for documentation,
- \* standards for the physical condition of containers,
- \* standards to prevent spills or ruptures,
- \* requirements for marking and labeling,
- \* requirements for waste segregation, and
- \* requirements for inspection.

These management practices are discussed in the remainder of this section.

As indicated in Atachmt. A, the movement of waste from the generating activity to the TSDF must be accompanied by a properly completed DD Form 1348-1. This form identifies the generating location, the MILSPEC material from which the waste was derived, the DOT shipping name and code, the EPA hazardous waste code(s), and the composition of the waste. This information is verified by the Holloman AFB Environmental Planning Office prior to transfer of the waste to DRMO. Upon arrival at the TSDF, the TSDF personnel inspect the container and DD Form 1348-1 to detect discrepancies.

All of this information is maintained in TSDF records. The documentation for each movement of waste from a specific generating function must be consistent with the data on file or the waste is not accepted by the TSDF. For new waste streams, this documentation consists of the feed materials survey data, the analytical results, and the notification of the process change. The turn-in document (DD Form 1348-1) is a multicopy record that is analogous to the Uniform Hazardous Waste Manifest. For each waste movement, one copy is retained by the generating activity, one copy is retained by base transportation, one copy is returned to the generating activity to signify acceptance by the TSDF, and a copy is retained in the TSDF operating record.

Furthermore, each movement of waste received by the TSDF must be accompanied by a generator notification if the waste is subject to the land disposal restrictions. The required notification, previously discussed, is retained in the TSDF operating record. This documentation must be consistent with the notification previously submitted by that generating source or the waste is not accepted.

The documentation must also be consistent with the container marking and labeling. Marking and labeling requirements include information contained on the hazardous waste warning label and information that must be stenciled on the container wall. These requirements are detailed in subsequent portions of this section.

Figure B-1 is a sample of the operating log for waste acceptance maintained by the TSDF. This log details the generating source, specific container identification number, the DD Form 1348-1 identification number, EPA hazardous waste number, and the identification number for the manifest that accompanies off-site shipment. For each item or container stored at the facility, a nine digit alphanumeric code is assigned that designates the storage location (building or outdoors) and the specific space in that location occupied by the container. The log is completed for each waste movement. This operating log and the following documentation is maintained by the TSDF for a minimum of three years unless otherwise specified:

- \* operating logs (DRMS Form 1712),
- \* turn-in documents (DD Forms 1348- 1),
- \* analytical results (for each waste by generating source),
- \* industrial hygiene surveys (previous year only),
- \* inspection logs,
- \* PCB annual records,
- \* spill reports/records (DRMS Form 1602),
- \* biennial reports (EPA Form 8700.13 and NMED equivalent),
- \* uniform hazardous waste manifests (EPA Form 8700.22),
- \* land disposal restriction notification,
- \* notification form (EPA Form 8700.12), and
- \* manifest exception and discrepancy reports.

The second standard for sound container management involves requirements related to the physical condition of the container. The TSDF will not accept hazardous waste containers that are in poor condition. Seven criteria relative to physical condition must be met by the hazardous waste containers turned in from Holloman AFB or the waste will not be accepted for storage. These criteria are:

- \* The container must be free of significant rust, and visible pitting, or corrosion.
- \* The container rolling hoops or chimes must be free of dents and creases.
- \* The container walls and heads must not be creased or significantly dented.
- \* The container heads cannot be bulged or expanded.
- \* The container must not exhibit loss of wall thickness.
- \* The container heads or walls must be free of evidence of spillage.
- \* The container must be provided a minimum of 3 inches of outage.

Additionally, the container must be properly color- coded, marked, and labeled as subsequently described

in this section. Containers must be tightly closed upon receipt.

Containers are maintained in sound condition by the segregation from standing liquids and large temperature gradients provided by indoor storage. Containers are accepted in the staging area only between 0730 and 1100 hours each Tuesday and Thursday and are not accepted during inclement weather or any precipitation event. If storage in the outdoor storage area becomes necessary, containers are generally stored on pallets in the bottom rack, level and with the container head covered. This technique retards container deterioration from standing liquids. The effects of radiant heat are minimized by the requirement for a minimum of 3 inches of outage in the container, which allows organic-based wastes to volatilize without development of excessive internal pressure in the container.

The third container management standard followed by the TSDF involves practices to prevent spills or ruptures. This standard is observed by adherence to certain container-specific requirements, storage practices, transport practices, and facility practices.

Container-specific requirements include the acceptance of only DOT- specified containers that are compatible with the waste and requirements for container condition as previously discussed. These standards ensure that containers are not prone to fail shortly after acceptance for storage. Requirements for 3 inches of outage are designed to prevent rupture due to volatilization of solvents.

Additionally, containers remain closed after acceptance for storage at the TSDF. Waste is never added to or removed from any container during storage unless the container deteriorates or leaks and the contents must be transferred to another container.

Additional standards that are followed to prevent spills or ruptures are related to storage practices. As indicated, indoor storage of containers prevents contact with precipitation or standing water. During storage, containers remain on pallets, which separates the container from any spill or leakage that occurs and from any water used for spill cleanup. Although temperature fluctuations will occur in the storage building, the effects of these gradients are minimized by the specified outage in the container and facility design parameters such as louvered floor vents, roof top ventilators, and R-19 insulation in the building walls.

Separation of containers from precipitation and standing liquids is facilitated in the staging area by placement on pallets and the requirement that operations are prohibited during precipitation events. Storage of containers in the racks of the outdoor storage area separates containers from standing liquids. In the outdoor storage area drum head covers may be used to prevent accumulation of liquids on the container head. Additional protection from ruptures due to radiant heat is provided to containers in the outdoor storage area by the addition of a roof.

Certain storage practices reduce both the potential for spills and minimize impacts should such an event occur. Stacking of containers (unless on secured racks) is prohibited in all sections of the unit. Containers handled and stored on a single level are less likely to overturn, which reduces the potential for spillage or rupture. Constraints on the volume of waste that may be handled or stored in a section of the unit reduce the impacts of any accidental event. The maximum number of containers for each cell in the storage building is normally specified as two pallets that each hold up to four containers. Generally, unless the storage volume becomes constrained within the storage building, only three containers are stored on one pallet. This maximum volume (440 gal/cell or 7920 gal total) retains the prohibition on stacking, does not reduce designated aisle space for operation, and is less

than each cell's sump capacity. The designed aisle space within the storage building is approximately 7 feet from sump edge to sump edge and approximately 9 feet from cell wall to cell wall. Container rows are only two drums deep in the cells and therefore, the drums are readily accessed for inspection or response actions. The volume limitation for the staging area is that not more than 20 containers (1100 gal) of the same waste may be placed in this area at any given time. Based on two containers per pallet, the approximately 1200 square foot area of the staging zone allows the pallets to be placed in rows of two or three pallets per row and retain ample aisle space. Such an arrangement provides 4 to 7 foot aisles between pallets for forklift operations, inspection of containers, and room for personnel to move in unhindered fashion.

The rack location in the outdoor storage area, figure B-9 (page B-23), allows sufficient space to conduct operations, perform inspections, and respond to spills or other emergencies.

Although storage occasionally occurs in 10 to 55 gallon containers, capacity constraints are based on 55 gallon drums. Containers of larger capacity are not used except as overpacks or for storage of solid wastes such as contaminated absorbent rags.

An additional practice required for outdoor storage is that all containers that hold flammable or combustible waste must be grounded. Requirements for grounding of these waste containers are established according to Air Force Occupational Safety and Health (AFOSH) standards and are not specifically stated under RCRA.

Procedures for handling and transport of containers are also established to prevent spills or ruptures. Transfer operations from Holloman AFB to the TSDF generally occur only on Tuesdays and Thursdays between 0730 and 1100 hours provided that precipitation events are not occurring or imminent. However, DRMO may on occasion accept wastes from the satellite accumulation points on an appointment basis, such that the requirement to move hazardous wastes from a satellite accumulation point to the TSDF within 72 hours is satisfied. Upon receipt each container and corresponding documentation is inspected to ensure that:

- \* the areas are free of standing liquids or wet spots,
- \* the full sump capacities are available,
- \* absorbent material is present,
- \* overpacks and new empty containers are present,
- \* storage area capacity is available, and
- \* the area is free of debris, unauthorized equipment, and unauthorized personnel.

After these inspections are completed, transfer operations may proceed. The following procedures are observed during transfer to prevent accidental spillage or rupture:

- \* The DRMO Environmentalist inspects each container prior to movement to ensure that it is tightly closed.
- \* Up to four containers may be placed upon a pallet during transfer.
- \* The DRMO Environmentalist must inspect the pallet to ensure containers are in a stable condition prior to movement.
- \* Stacking containers or pallets to facilitate movement is prohibited.
- \* After placement in the proper cell or rack, the Environmentalist performs a second inspection of the container and pallet.

\* Movement of single containers for storage in the building is performed by forklifts fitted with drum-handling tongs instead of pallet-handling tines.

\* Inspection and movement procedures observed for palletized containers are also applicable to movement of single containers.

As indicated in Atchmt. D, all personnel that perform waste handling operations at the TSDF are trained in the use of relevant operating and spill control equipment, waste handling procedures, and spill response procedures.

Activities at the TSDF require limited operating equipment. At a minimum, this equipment includes;

- \* 10 new, empty 17E, 17C, or 17H specification containers,
- \* 5 new, empty SA or SB specification containers,
- \* 2 new, empty 37P poly-lined specification containers,
- \* 10 DOT salvage drums,
- \* 2 brass spark-free bung wrenches,
- \* 1000 pounds of dry granular absorbent,
- \* 100 feet of pallet strapping,
- \* 10 new, standard 40 inch by 45 inch pallets,
- \* 1 EE specification forklift, and
- \* emergency response equipment described in Section F.

The EE-Type forklifts meet ANSI B56.1-1969-75 "Safety Standard for Powered Industrial Trucks Part II" specifications. This Yale, Inc., manufactured equipment has the model number NE040MAN2455095EE.

Similar procedures are observed during loading operations except that handling is performed by the transporter under the oversight of DRMO personnel. During these operations, the oversight activities are performed according to the DRMS 1787 checklist that is provided as Figure B-2. This form is maintained as part of the operating record for three years.

As previously indicated, each container that holds hazardous waste is inspected upon receipt at the TSDF. In addition to inspection of the container condition and corresponding documentation, DRMO personnel inspect the container labeling and marking. Container labeling and marking must be consistent with the DD Form 1348-1 and DRMO acceptance requirements or the container is rejected.

## SECONDARY CONTAINMENT DESIGN AND OPERATION

Prior to construction of the containment base, the rigid frame and wind column foundations were placed. Wind column foundations consist of either 2.5 or 4.0 square foot reinforced concrete pedestals. The rigid frame foundation consists of two 5 square foot reinforced concrete pedestals. Concurrent with placement of the foundations, the 20 precast sumps were placed in the native soil/sand fill to the appropriate depth in such a fashion as to delineate the location of the individual cells. Holes were cut in the center sumps at designated locations and a pour form was extended from the rigid frame pedestals in order to construct a tie beam. This 8 inch by 12 inch tie beam is reinforced with two No. 4 rebar sections that extend into the column pedestals. The tie beam spans the

width of the building and passes through each of the four center sumps. Nonshrink grout was used to seal the void created by placement of the tie beam.

Upon completion of the foundation work, a well-graded soil/sand mixture was placed around the sumps to within 6 inches of the basin rim and compacted. The floor slab was constructed upon this subbase by a series of monolithic pours of Type V Portland cement. A control joint (a 2 foot section of No. 4 rebar) was constructed between each of the pours to compensate for differential settlement and blockout was developed parallel to the building length to control crack formation. Expansion joint material was not placed between the precast sumps and the individual pours. None of the slab pours were tied to the foundation and therefore, the floor slab is an isolated member.

Construction of the structure in this manner has resulted in crack propagation in the floor slab and monolithically developed curb. Crack formation that occurred in the staging area has been repaired by routing, backfilling the void with nonshrink grout, and resurfacing the slab.

Initial repair of the cracks that formed in the building floor slab was performed by removal of the concrete in the vicinity of the crack to a depth of 1 inch and width of 1.5 inches. Two different sealants were used to fill this void. Cracks will be inspected regularly and kept sealed at all times.

A spill is most likely to occur during operational hours when the wastes are being loaded or unloaded. In situations where a spill is immediately cleaned up, as would be the case during operational hours, the sealant is effective to prevent the migration of the wastes through the cracks in the floor. Drip pans have also been installed in each bay to contain leaks that could possibly occur during non-operational hours. To ensure the sealant is in good condition, it is inspected weekly for deterioration.

## SECONDARY CONTAINMENT SYSTEM

The containment pans used for secondary containment are of two types. The first type is a pre-manufactured containment pan, constructed of 7 gauge ASTM-A39 steel and ASTM-A36 tubing. These pallets/containment pans were specifically designed to manage hazardous material and accommodate up to four 55 gallon drums. They have forklift pockets to permit easy handling. Their secondary containment capacity is approximately 85-106 gallons. Their approximate size is 52.5 inches wide x 52 inches deep x 15 3/8 inches high. The interior and exterior surfaces are coated with a chemical resistant epoxy paint. The pallets are equipped with a lift-off fiberglass floor grating to provide easy access to the sump area. Additionally, they have a static ground connection, side rails, and safety chains.

The other type of containment pans are constructed of 1/16 inch sheet metal with welded seams. Their approximate size is 8 feet 5 inches long x 4 feet 6 inches wide x 5 inches high. These pans are designed to fit under the storage racks inside the storage building to ensure secondary containment in the event of a chemical spill.

Containment pans utilized in the outdoor storage area consist of the above described pallets/containment pans, sheet metal pans with welded seams, and galvanized steel pans of varying size. Containment pans in the outdoor storage area may be moved around to reconfigure the area, to meet the demands of varying types and volumes of wastes that may be stored in the area.



## CONTAINMENT SYSTEM DRAINAGE

The current facility is designed to provide drainage in the staging area and building. The structure provides for drainage from the cells to the corresponding sumps by the combination of a slope of approximately 1% and the retaining walls. Additionally, the retaining walls prevent mixing of incompatible wastes should a combination of wastes be simultaneously spilled. However, with the use of secondary containment pans in each of the cells, it is unlikely a spill in a cell would ever enter the sumps, nor would there be mixing of incompatible wastes in the event of two simultaneous spills. The only spill that would be collected in the sump is in the event of a spill occurring while materials are being transported down the aisles of the storage building.

Ultimately, any spill that collects in the sumps or containment systems would be vacuumed or pumped with technically-resistant equipment. Absorbent material is utilized to collect residues from the spill after pumping or vacuuming.

As part of a proposed construction project, a new staging area will be constructed. The staging area will be provided with sufficient drainage to a sump where spills will be collected and cleaned by pumping or vacuuming and with absorbent materials.

## CONTAINMENT SYSTEM CAPACITY

The current storage structure provides excess containment capacity for spills, accumulated precipitation, etc., in both the storage building and the staging area. Operating practices limit the total number of containers that may be present in the staging area to 20 containers of the same type waste. With the exception of PCB transformers and overpacks, containers that are managed at the TSDF generally do not exceed 55 gallons in capacity. Transformers as large as 6780 lb (approximately 1000 gal) have been handled in previous years. Although overpacks are larger than 55 gallons, these containers are generally used only as secondary containment in the event that the primary container leaks. There is one exception to this and that is 85-gallon overpacks are sometimes utilized to manage contaminated rags or other solid wastes. The maximum volume of waste handled in the staging area is approximately 1100 gallons. The drainage sump located in this area provides approximately 420 gallons of capacity or approximately 38% of the total volume managed in the staging area per occurrence.

Each cell located in the current storage building is designated to hold 330 gallons of waste under normal conditions. If additional storage were required due to transport delays, a maximum of 440 gallons of waste would be stored in each cell. Containment sumps for each cell provide approximately 420 gallons of capacity. In the event that a large PCB transformer required storage, no more than one item would be stored in a given cell if the item contains >500 gallons of PCBs. Thus, the current containment system in the building normally provides capacity for 90% to 125% of the waste stored within the cell. With respect to very large PCB items, historical practice indicates that approximately 40% of the stored volume may be retained in the sump.

The outdoor storage area currently does not provide both drainage slope and capacity. Even though the area is not sloped to promote drainage, the area is enclosed by a curb which could retain approximately 9000 gallons of waste liquids if the base were retrofitted. Actual containment capacity in the existing facility is determinant on the number and volume of secondary containment pans utilized in the area. The present operating practices in the

outdoor storage area are to utilize containment pans that will contain at a minimum, 110% of the largest volume container within the secondary containment pan. The additional 10% would accommodate material expansion or a precipitation event. It should be noted here that reactive wastes are always stored within the storage building to ensure a precipitation event does not cause an incident.

#### PREVENTION OR MANAGEMENT OF RUNON

The current facility provides for long-term storage within the storage building. The enclosed nature of this structure prevents entry of precipitation or runoff. Additionally, precipitation or runoff are prevented from entering the structure by the curb on which the building rests, downward-directed louvers on the floor-level vents, and the normal construction of roof ventilators. A 2 to 3 foot wide clear zone that slopes away from the building provides additional protection from the entry of runoff.

As previously indicated, wastes are not handled in the staging area during precipitation events or if such events appear imminent. The sloped clear zone that surrounds the storage building extends to surround the staging area and directs runoff away from the staging area. Consequently, it is highly unlikely that an accumulation of precipitation combined with a spillage of waste would occur simultaneously, nor would the containment capacity in the staging area be inundated to the point that it would run off to the surrounding area.

The primary provisions for exclusion of precipitation or runoff from the current outdoor storage area are the 6-inch high curbs that encircle it and the sloped 2 to 3 foot clear zone that surrounds the area to direct runoff away from the pad.

As indicated in Section B, the maximum precipitation received during a 24-hour, 44-year storm event equals 2.1 inches. Since the average annual evaporation rate in the area is approximately 70 inches and the average annual rainfall is approximately 11 inches, generally there is not a problem with accumulation of precipitation. However, should there be an accumulation of precipitation in the outdoor storage area containment pans, the liquids would be removed by pumping or vacuuming.

#### REMOVAL OF LIQUIDS

The containment pans and sumps in the existing TSDF provide for containment of spilled liquids, etc. As stated previously, Holloman AFB Environmental Planning office has requested funds to repair the outdoor storage area base as well as to place an overhead cover to prevent weathering of the containers stored within the outdoor storage area.

The discovery of any accumulated liquids in the containment pans is managed in a manner that is protective of health and the environment. In other words, any accumulated liquids are considered to result from spillage until proven otherwise. Thus, upon discovery, DRMO personnel notify the SRT as indicated in the Holloman AFB Spill Prevention and Response Plan. Removal, cleanup, and/or management of liquids that are toxic spills or assumed to be toxic spills, is performed only by the Holloman AFB SRT.

Generally, the DRMO does not accept hazardous wastes without an analysis or copies of the Material Safety Data Sheets verifying the input materials of the generated waste. However, if there is question as to what the

material is in the containment pan, before accumulated liquids are removed, a composite sample is withdrawn in accordance with the protocols presented in Section C. The material is assumed to be and managed as a toxic hazardous waste. The material is containerized in 55 gallon containers that meet DOT specifications 5, 17C, or 17E. Containers for this purpose are maintained by the TSDF. If dry granular absorbent is applied to liquid residues, the resultant mixture is removed by shovels and transferred to appropriate DOT-Specification containers and stored at the TSDF until the results are received identifying the contents of the material. Disposition of the material is in accordance with the requirements of RCRA and DOT.

#### REQUIREMENTS FOR IGNITABLE, REACTIVE, AND INCOMPATIBLE WASTES

As indicated in Section B, the TSDF is located approximately 1400 feet within the eastern boundary of Holloman AFB. The nearest military housing units are located approximately 500 feet from the unit. Electrical service for the unit is restricted to the fire alarm located on the exterior wall over the access door and explosion-proof lighting (NEC Division I, Class 2 specifications) with the switch located along the exterior northeast wall. Operating equipment is of intrinsically safe design that meets NEMA Type 7, Class I, Group C or D specifications, EE specifications for forklifts, or in the case of hand-held tools, is nonsparking in nature. Smoking, open flames, welding, etc., are prohibited and the unit is posted to indicate these restrictions. "No Smoking" signs are posted upon building walls, adjacent to the outdoor areas, and 50 feet from the unit. These standards have been discussed in previous sections of this application.

Mixing of incompatible wastes is prevented by facility design and operating practices. Containers remain closed unless the contents must be transferred due to deterioration of the container. Only previously unused containers of proper DOT specification or DOT salvage drums (overpacks) are used to hold leaking containers. Additional practices that are followed to prevent mixing of incompatible wastes include handling of only a single waste type per transfer operation in the staging area, marking and labeling requirements for containers, standards for the condition of containers, and good handling practices. These practices were addressed on pp. 4-10 above. In addition to these operating practices, segregation of incompatible wastes is provided by the facility layout. Each cell in the current structure is designated for the management of a specific waste type and cells are posted to designate the waste that may be stored in that location. Thus, incompatible wastes are segregated by the cell dividing walls indicated in the floor plan to provide the maximum possible physical distance between these materials. In Figure B-3 an example layout for segregation of wastes in the current storage building is provided. As indicated in Figure B-3, certain cells may be used to store several waste types, but only one of the designated wastes may occupy the cell at any given time. This storage procedure is allowed because the wastes designated for such a cell are compatible with each other and wastes stored in adjacent cells. Storage schemes in the outdoor storage area may vary dependent on volumes of waste types stored at any particular time.

DRUM NO.	DTID NO.  NSN/LSN	GENERATOR DATA		DESCRIPTION OF CONTENTS  TYPE OF OPERATION	PHY. FORM  EPA HANDLING CODE	RECEIPT MANIFEST NO.  EPA HAZ. WASTE NO.	EST/MANIFESTED		STORAGE  DATE  LOCATION	DISPOSAL MANIFEST NO.  REQUISITION DOCUMENT NO.
		ORG SYMBOL	BLDG. NO.				WT/VOL VALUE	SYMBOL		
		NAME	PHONE							

Fig. B-1. Storage Facility operating log.

COR CHECKLIST		CONTRACT NUMBER	DELIVERY ORDER REQUEST CONTROL NUMBER	DATE OF REQUEST
1 DATE SENT TO  CONTRACTING OFFICE _____  REGION OFFICE _____  FILE _____	2 ITEMS TAGGED (yes/no)  WITH CONTROL NO. _____	4 DELIVERY ORDER NO. (DATE) _____		7 CONTACTED E CONTRACTOR (DATE) _____
	WITH DELIVERY ORDER NO. _____	5 SCHEDULED REMOVAL (DATE) _____		
	3 ITEMS ACCESSIBLE <input type="checkbox"/> YES <input type="checkbox"/> NO	6 REC'D NOTIFICATION (DATE) _____ (per para C.8 of contract)		8 SCHEDULED PICKUP (DATE) _____
9 INTERNAL NOTIFICATIONS		days prior to visit)		
<input type="checkbox"/> INSTALL. SPILL TEAM PH: _____ <input type="checkbox"/> INSTALL. COMMANDER PH: _____ <input type="checkbox"/> INSTALL. ENVIRONMENTALIST PH: _____		10 MANIFEST WORK COPY PREPARED (DATE) _____		11 VERIFIED MATERIAL (DATE) _____
				12 VERIFIED ACCESSABILITY (DATE) _____
CONTRACTOR ARRIVAL				
13 ARRIVAL (DATE) _____		20 MANIFEST		
14 JOINT INSPECTION (COR and Contractor)		<input type="checkbox"/> PROPER MANIFESTS <input type="checkbox"/> GEN. EPA I.D. NO. + MANIFEST DOC. NO. <input type="checkbox"/> GEN. NAME, ADDRESS, PHONE <input type="checkbox"/> TRANSPORTER NAME, EPA NO. <input type="checkbox"/> TSDF NAME, ADDRESS, EPA NO. <input type="checkbox"/> REPORTABLE QTY. (if applicable) <input type="checkbox"/> PROPER SHIPPING NAME } MUST BE <input type="checkbox"/> HAZARD CLASS } IN THIS ORDER <input type="checkbox"/> UN OR NA NUMBER <input type="checkbox"/> QTY. IN WEIGHT OR VOLUME <input type="checkbox"/> TYPE AND NUMBER OF CONTAINERS <input type="checkbox"/> STATE REQUIRED INFORMATION <input type="checkbox"/> NON-REGULATED LISTED LAST <input type="checkbox"/> CERTIFICATION STATEMENT SIGNED BY COR <input type="checkbox"/> TRANSPORTER SIGNATURE <input type="checkbox"/> CO-SIGNER SIGNATURE (if applicable) <input type="checkbox"/> RETAINED GENERATOR'S COPY		
15 OTHER PROPERTY ON TRUCK <input type="checkbox"/> YES <input type="checkbox"/> NO (If more space needed, use reverse) IF YES, WHOSE? _____  WHAT? _____		21 <input type="checkbox"/> ALL PROPERTY MANIFESTED		
16 PICKUP REPORT  <input type="checkbox"/> PREPARED BY CONTRACTOR (If pickup report does not agree with Delivery Order, explain on reverse)		22 LOAD  <input type="checkbox"/> SECURE <input type="checkbox"/> SAFE FOR TRANSPORTATION <input type="checkbox"/> COMPATIBLE (49 CFR 177.848)		
17 PACKAGING (49 CFR 172.01 Columns 5a & b) (49 CFR 173.24)  <input type="checkbox"/> DOT APPROVED PACKAGING		23 PLACARDING (49 CFR 172.500)  <input type="checkbox"/> PROPER PLACARDS (When req'd - front, back and both sides).		
18 MARKINGS (49 CFR 172.300)  <input type="checkbox"/> PROPER SHIPPING NAME <input type="checkbox"/> DOT IDENTIFICATION NO. <input type="checkbox"/> HAZARD WASTE MARKING (Ship. Name, UN NO.) <input type="checkbox"/> ORM MARKINGS _____ RQ (if required) <input type="checkbox"/> LIQUID - This side up/Arrows		24 INSPECTION (COR and Contractor)  EVERYTHING REMOVED <input type="checkbox"/> YES <input type="checkbox"/> NO (Including packing materials and containers) (If more space needed, use reverse)  ITEMS NOT PICKED UP _____  ANY SPILLS _____ (If yes, explain on reverse)		
19 LABELS (49 CFR 172.400) (49 CFR 172.101 Column 4)  (One label on cont. when req'd. Two labels if at least 64 cu. ft. but less than 640 cu. ft. - one label on each opposite side.)  <input type="checkbox"/> REQUIRED LABELS <input type="checkbox"/> ADDITIONAL LABELS (As required)		25 SUSPENSE FILE  <input type="checkbox"/> COLLECTION SUMMARY REPORT SENT TO CONTRACTING OFFICE (DATE) _____ <input type="checkbox"/> MANIFEST COPY RETAINED <input type="checkbox"/> STATE COPY MAILED (if required) (DATE) _____ <input type="checkbox"/> IF NOT RETURNED CO. NOTIFIED (DATE) _____ <input type="checkbox"/> FILE CLOSED (DATE) _____		

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Fig. B-2. Transport loading oversight checklist.

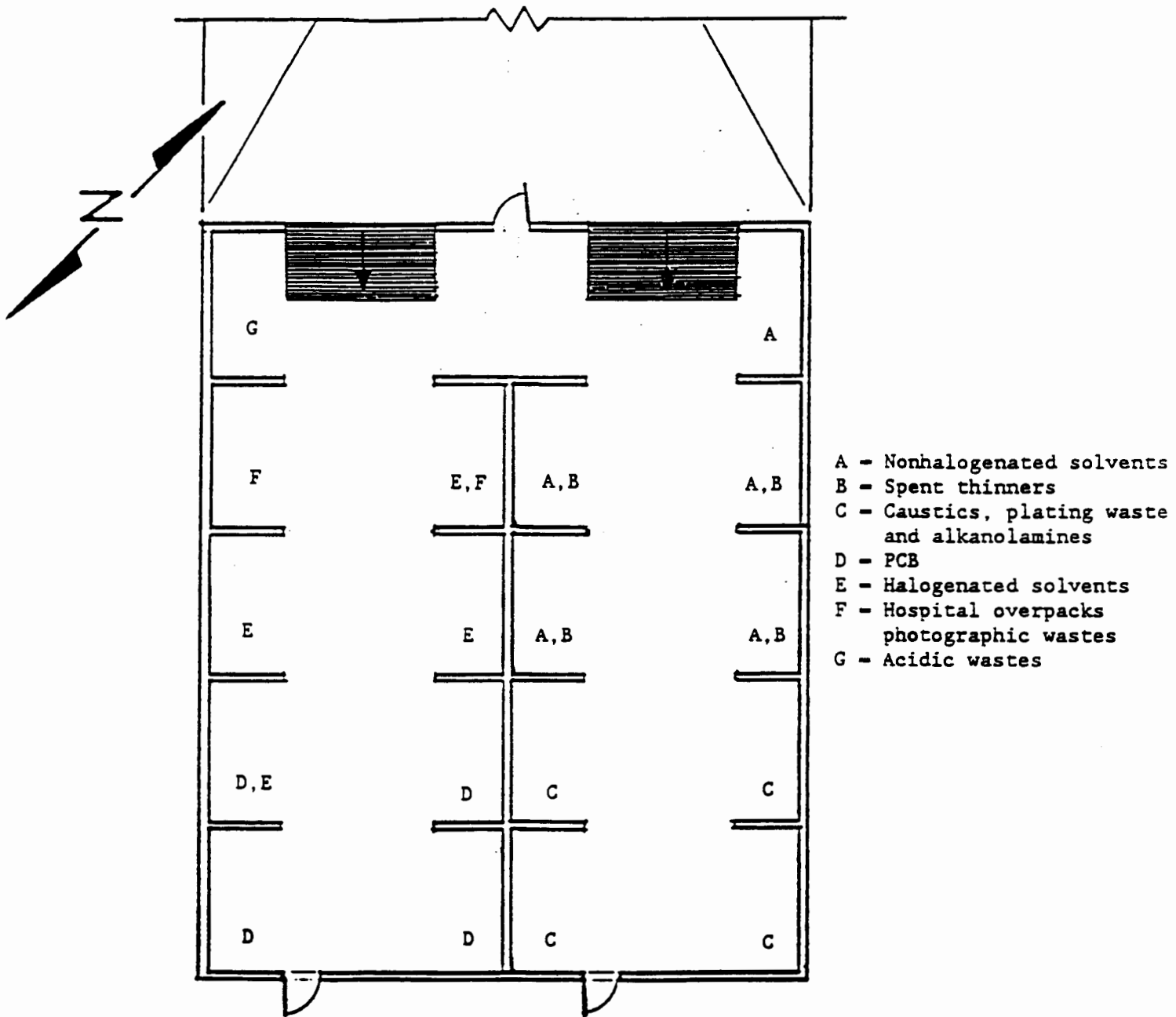


Fig. B-3. Current storage building waste segregation diagram.

Note: Storage pattern may vary depending on nature and quantities of wastes to be stored.

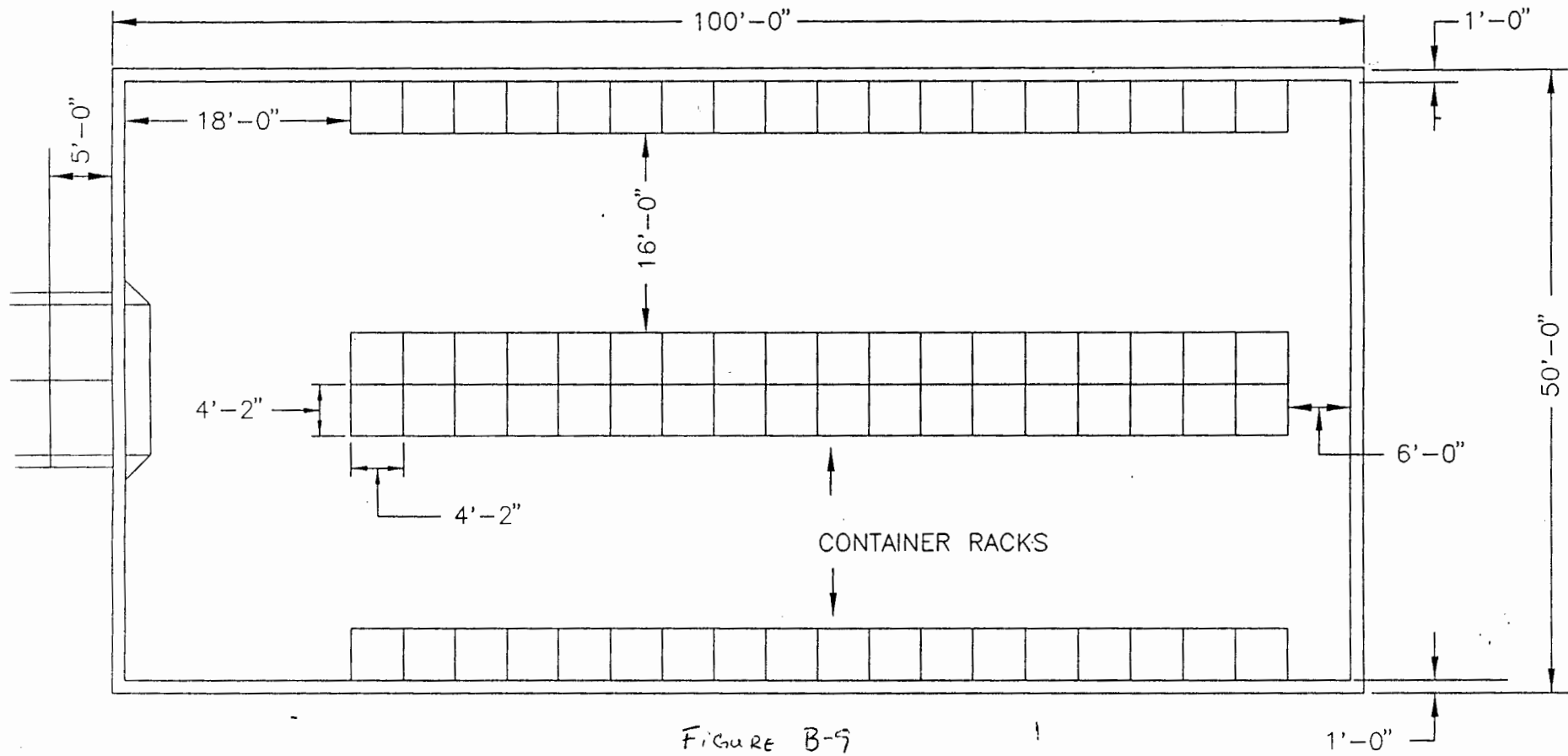


FIGURE B-9

STORAGE PAD WITH CONTAINER RACK LOCATIONS