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RECEIVED 2000

November 10, 2000

Mr. Steve Pullen
State of New Mexico Environment Department
Hazardous and Radioactive Material Bureau
P. O. Box 26110
2044 Galisteo
Santa Fe, New Mexico 87502

Reference: Work Assignment No. Y513, 06082.300; State of New Mexico Environment Department, Santa Fe, New Mexico; General Permit Support Contract; Draft RCRA Operating Permit Review Support, Gandy-Marley Hazardous Waste Landfill; Draft Deliverable

Dear Mr. Pullen:

Enclosed please find the deliverable for the Gandy-Marley (GMI) draft Permit. This deliverable includes Permit Parts 1 through 11, Attachments F1 and F2 (Waste Analysis Plan and Waste Acceptance), and Attachment Q which addresses statistical procedures. It should be noted that Permit Parts 8 and 9 were combined together. At present there is no Permit Part 9 contained in this Permit.

TechLaw evaluated the draft Permit in accordance with the Work Plan, Revision 2, and based on discussions with Steve Pullen, the NMED Project Manager.

During our review, specific Permit Attachments were not identified by GMI. TechLaw did receive GMI's application, which for the most part consisted of what will evidently be incorporated as Attachments. Nonetheless, NMED should check our references to Attachments closely to ensure they are correct.

The final closure/post-closure financial cost figures were never received from Mr. Dave Cobrain of NMED, although an earlier version was received and reviewed. Therefore, we are unaware if any modifications were made after our initial review. Since the modified numbers were generated by NMED and the earlier version appeared to be consistent with EPA guidance and normal cost estimating procedures, we do not believe

this to be of concern. However, please let us know if NMED believes otherwise. TechLaw can assist you in this task if necessary.

Issues:

1. As discussed with you on November 9, 2000, TechLaw has not received Permit Attachments S, T, and U (corrective action attachments). However, as discussed with you, these attachments are 'standard EPA" attachments and would not require a review. Therefore, omission of these attachments should have minor impact on the final deliverable.

2. In general, the technical engineering parts of the draft Permit (Parts 3, 4, 5, and 6) appear to be in good shape with the exception of a few issues addressed below. For Part 2 we have suggested some modifications in both the Permit language and in the Attachments themselves. The main language modifications occur in the Permit conditions which address the Waste Analysis Plan. In addition, we have modified Attachment F, separating this attachment into two Attachments entitled "F1" and "F2." This was done to eliminate vague wording that existed in the Waste Analysis Plan. Changes made were discussed with Ms. Stephanie Kruse. Part 2 has also undergone some minor modifications in the Permit condition which addresses personnel training and the Contingency Plan.

3. One of the major concerns for NMED is the compliance schedules which have been listed in Permit Condition 1.10, Table 1-1 of Permit Part 1. There are presently 44 compliance schedules identified in this Table. It should be noted that these required schedules are very specific as to the information which may be required for submittal to NMED. NMED may, in some instances be able to combine interrelated compliance schedules into one large compliance schedule which addresses a broader topic. While drafting these Permit Conditions with compliance schedules, we often provided language in the Condition itself which includes performance-based standards. If NMED determines not to include compliance schedules upon the legal review, some of these performance-based standards may be sufficient with some modification to include additional information. The compliance schedule issue may need to be re-visited after the legal review.

Engineering Issues:

1. Surface Impoundment – Perimeter Dike

   Based on the information supplied in the Permit application, it is not clear how GMI will achieve the desired permeability (1×10^{-7} cm/sec) in the compacted clay liner of the Evaporation Pond. In general, the approach proposed by GMI (construction of test fill, permeability testing of test fill, cracking and drying to be prevented during construction and cracks repaired before installation of the overlying liner

system) appears appropriate. However, additional details are needed. For example, section 2.6.1.1 states that the mudstone and siltstone used in the compacted clay liner may be "conditioned." Further, the text states "...with processing the materials can be placed and compacted to meet the permeability specification..." The test fill plan indicates that "...other materials..." may be used in the compacted clay liner. These materials and conditioning and processing methods are not identified and discussed in the Permit application. Materials such as bentonite and techniques such as pug mill mixing are sometimes used with clays to ensure that the desired permeability is achieved.

Through Permit Condition 1.10 (Table 1-1, 5.2.1.c.ii), Compliance Schedule, GMI has been asked to furnish additional details concerning the materials and the possible methods of modification for the compacted clay liner.

2. Truck Roll-off Area Design

The purpose for one of the truck roll-off areas is to provide a staging area for incoming roll-off bins containing unstabilized waste destined for the stabilization facility. The second staging area is for roll-off bins containing post-treatment stabilized waste, which has met the paint filter tests for free liquids, awaiting landfill disposal approval.

The roll-off area is designed with a surface gravel layer. This design is of a concern because any spill whether liquid or solid will be sorbed to the gravel and/or fill the voids in the gravel, thereby necessitating the removal and proper disposal of the gravel. This would result in compromising the design of the system (e.g., damage to the road base and possibly to the subbase), generating more waste than spilled, and potential increase in operation and maintenance costs of the truck roll-off area.

Other concerns with this design include:

- Damage to the subbase and underlying liners due to uneven point loads that will be exerted by the gravel during roll-off placement and removal.
- Since the area is not covered, rainwater will make detecting and/or managing any liquid or solid spilled on the gravel surface difficult.
- The intended purpose of the liner and the leachate collection and detection system is rendered ineffective by the layers placed above the liner system. For example, Section 5.1.3 (under "Drainage Sump System") states, "the drainage sump will collect storm water run off from the floor of the truck roll-off area." However, since the surface of the floor is a gravel road base underlain by subbase, run-off may only be generated either by heavy rainfall (in which case erosion of the gravel surface is a concern) or after the layers are saturated with percolating rainwater.

- The containment capacity of the leachate collection sump does not appear to consider the rainwater. It is not clear what container volume is used to determine that the system has a storage capacity greater than 10% of the capacity. Since no liquid will be stored in the roll-off containers, the containment capacity should be determined for the heaviest intensity rainfall anticipated.

While TechLaw is concerned about the design, it is less of an issue since this particular unit will not be accepting liquid wastes. There may be several ways to reduce the concern regarding the design of the unit. First, NMED could require some type of design cover over the entire unit. Secondly, NMED could require strict inspection schedules of the area including:

- Inspect the incoming roll-offs for complying with the lining and cover requirement (DOT requirement).
- Inspect the area immediately after placement or removal of roll-offs.
- Inspect the area immediately after rain event.

In addition, the following operation and maintenance issues should also be considered:

- If gravel is removed because of spill, ensure that the subbase is not damaged, and if damaged, replace the damaged portion in accordance with the technical specifications (Section 02230) – subbase).

TechLaw has not included the above issues in the draft Permit provided to NMED. TechLaw believes that a policy determination regarding the course of action should be made first. TechLaw would be able to provide any assistance needed regardless of NMED's determined course of action.

3. Subparts BB/CC

Because the facility has chosen not to place organic air emission controls on the stabilization tanks and liquid waste tanks, no waste regulated under 40 CFR 264 Subparts BB and CC (the hazardous waste air rules) may be stored or treated in those units. By the requirements of waste analysis contained in the air rules, hazardous waste is presumed to have organic or volatile organic concentrations in excess of the regulatory threshold unless proven otherwise. Several provisions of the permit are affected, primarily waste acceptance (expressed by the exemption provisions) recordkeeping, notification, and inspection requirements. Also the LDR exemption has been narrowed to apply only to organic wastes that meet LDR standards, not all wastes that meet LDR standards, because LDR requirements for inorganic wastes do not address organic compounds (e.g., degreasers contained within metal plating wastes).

TechLaw has made some Permit language modifications based on discussions between Ms. Kruse of your staff and Mr. Druschel of TechLaw. Please look closely at the modifications. It appears that Steve and Stephanie have had discussions regarding this issue and have decided to address the Subpart BB/CC by including recordkeeping and reporting requirements, not necessarily waste analysis requirements as I was first led to believe. Therefore, the modifications to these requirements are not as severe as I thought. I hope this has not led to any misunderstanding.

4. Action Levels

Part 11, Corrective Action for SWMUs and AOCs does not specify any action levels that trigger the corrective action for SWMUs or AOCs, nor are any methods or procedures for deriving action levels provided. It is not clear from NMED regulations what the basis for the action levels might be, such as comparisons to background, risk-based threshold concentrations, or some technology-based approach. TechLaw believes that a comparison to background approach may be the most appropriate, similar to that which is required in Part 10, but regulations could not be found to support any such Permit requirements for Part 11.

The deliverable has been formatted in Microsoft Word, and we have included both a hard copy and a diskette. In addition, a copy was e-mailed to you on November 10, 2000.

If you have any questions, please feel free to contact me at (303) 763-7188.

Sincerely,

June K. Dreith/dr

June K. Dreith
Project Manager

Enclosures

cc: Mr. James Bearzi, NMED (w/o enclosure)
Ms. Stephanie Kruse, NMED
Mr. B. Jordan, TechLaw Central Files

GANDY-MARLEY HAZARDOUS WASTE LANDFILL
DRAFT RCRA OPERATING PERMIT REVIEW

Submitted by:

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Submitted to:

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Hazardous and Radioactive Material Bureau
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2044 Galisteo
Santa Fe, New Mexico 87502

In response to:

Work Assignment No. Y513

November 2000

DRAFT PERMIT
TRIASSIC PARK/GANDY-MARLEY

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PERMIT PART 1

GENERAL PERMIT CONDITIONS

HIGHLIGHTS

This Part contains conditions pertaining to all hazardous waste storage, treatment, and/or disposal facilities permitted under the Resource Conservation and Recovery Act (RCRA).

1.1 EFFECT OF PERMIT

Compliance with this Permit during its term shall constitute compliance, for purposes of enforcement, with Subtitle C of RCRA, 42 U.S.C. Section 6901 et seq., the New Mexico Hazardous Waste Act (HWA), NMSA 1978, §74-4-1 et seq. (Replacement Pamph 1993), and except as otherwise specified at 20.4.1.900, incorporating 40 CFR 270.4(a), their implementing regulations. Compliance with this Permit shall not constitute a defense to any order issued or any action brought under §§74-4-10, 74-4-10.1, or 74-4-13 of HWA; Sections 3008(a), 7002(a)(1)(b), or 7003 of RCRA; Sections 104, 106(a), or 196(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. 9601 et seq.; or any other law providing for protection of public health or the environment. This Permit does not convey any property rights or any exclusive privilege, nor authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local laws or regulations. [20.4.1.900 NMAC, incorporating 40 CFR 270.4 and 270.30(g)]

1.2 PERMIT ACTIONS

1.2.1 Term of Permit

This Permit shall be effective for a fixed period of ten years from the effective date of the Permit. [20.4.1.900 NMAC, incorporating 40 CFR 270.50(a)]

1.2.2 Permit Renewal

If the Permittee ~~wishes~~ would like to continue an activity regulated by this Permit after the expiration date of this Permit, the Permittee shall apply for and obtain a new Permit.

The Permittee shall submit a complete application for a new Permit at least 180 calendar days before the expiration date of this Permit, in accordance with all applicable laws, unless an extension is granted by the Secretary.

In reviewing any application for a Permit renewal, the Secretary shall consider improvements in the state of control and measurement technology and changes in applicable regulations. [20.4.1.900 NMAC, incorporating 40 CFR 270.10(h) and 270.30(b)]

1.2.3 Continuation of Expiring Permit

If the Permittee has submitted a timely and complete application for renewal of this Permit in accordance with Permit Condition 1.2.2 and 20.4.1.900 NMAC, incorporating 40 CFR 270.10 and 270.13 through 270.29, and, through no fault of the Permittee, the Secretary has not issued a new Permit on or before the expiration date of this Permit, the terms and conditions of this Permit remain in effect until the effective date of the Secretary's issuance or denial of the new Permit. [20.4.1.900 NMAC, incorporating 40 CFR 270.51].

1.2.4 Permit Modification, Suspension, and Revocation

This Permit may be modified, suspended, and/or revoked for cause as specified at HWA, §74-4-4.2, and 20.4.1.900~~.B~~1.B NMAC, incorporating 40 CFR 270.41, 270.42, and 270.43~~, and 20.4.1.901.B NMAC~~. The filing of a request by the Permittee for a Permit modification, suspension, or revocation, or the notification of planned changes or anticipated noncompliance, shall not stay the applicability or enforceability of any Permit Condition. [20.4.1.900 NMAC, incorporating 40 CFR 270.30(f)]

1.2.5 Disclosure Statement

If any information required to be included in the disclosure statement provided by the Permittee to comply with HWA, §74-4-4.7, changes, or if any information is added after filing the statement, the Permittee shall provide that information to the Secretary within 30 calendar days after the change or addition. Failure to provide such information in a timely manner may constitute the basis for the revocation of this Permit or denial of an application after notification from the Secretary.

1.2.6 Transfer of Permit

The Permittee shall not transfer this Permit to any person except after providing notice to the Secretary and receiving approval from the Secretary for this action. The prospective new owner or operator shall file a disclosure statement with the Secretary as specified at HWA, §74-4-4.7. The Secretary may require modification or revocation and reissuance of this Permit in accordance with 20.4.1.900 and 20.4.1.901 NMAC, incorporating 40 CFR 270.40(b) and 270.41(b)(2).

Before transferring ownership or operation of the Facility during its operating life or post-closure care period, the Permittee shall notify the new owner or operator in writing of the requirements of 20.4.1.500 NMAC, incorporating 40 CFR Part 264 and 20.4.1.900 NMAC, incorporating 40 CFR Part 270. [20.4.1.500 NMAC, incorporating 40 CFR 264.12(c), and 20.4.1.900 NMAC, incorporating 40 CFR 270.30(l)(3) and 270.40]

1.2.7 Obligation for Corrective Action

Corrective action required pursuant to 20.4.1.500 NMAC, incorporating 40 CFR 264.101, shall continue under this permit for any period necessary to comply with the requirements specified at Parts 10 and 11 of this Permit.

1.2.8 Permit Review

The Secretary shall review this Permit no later than five years after the effective date of the Permit, and shall modify the Permit as necessary. Such modification shall not extend the effective term of the Permit as specified at Permit Condition 1.2.1. [20.4.1.900 NMAC, incorporating 40 CFR 270.41, 270.50(b), and 270.50(d)]

1.3 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. [No citation] [40 CFR 124.16(a)(1) and (2)]

1.4 DEFINITIONS

If, subsequent to the issuance of this Permit, federal or State regulations are promulgated which redefine any of the terms defined below, the Secretary may, at his or her discretion, apply the new definition to this Permit by modifying the Permit. [20.4.1.900 NMAC, incorporating 40 CFR 270.41]

For purposes of this Permit, terms used herein shall have the same meanings as those in HWA, RCRA, and their implementing regulations unless this Permit specifically provides otherwise. Where a term is not defined in HWA, RCRA, pursuant regulations, EPA guidelines or publications, or this Permit, the meaning associated with such a term is defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

- *Action leakage rate (ALR)* means the maximum design flow rate that a leak detection system can remove without the fluid head of the bottom liner exceeding one foot. [20.4.1.500 NMAC incorporating 40 CFR 264.222 and 264.302(a)]

- *Area of concern (AOC)* means any discernable unit or area which, in the opinion of the Secretary, may have received solid or hazardous waste or waste containing hazardous constituents at any time. Such AOCs may require investigations and remedial action in compliance with Section 3005(c)(3) of RCRA in order to ensure adequate protection of human health and the environment. Because hazardous wastes are managed or have the potential for being generated at certain non-permitted areas at the Facility, e.g., the truck wash area, these areas are considered AOCs. [61 FR 19443]

- *Bulk polychlorinated biphenyl (PCB) remediation waste* includes, but is not limited to, the following non-liquid PCB remediation wastes: soil, sediments, dredged materials, muds, PCB sewage sludge, and industrial sludge. [40 CFR 761.61(a)(4)(i) 761.3]

- *Construction and demolition debris* means materials that are not hazardous waste and are generally considered to be not water soluble and nonhazardous in nature, including, but not limited to, steel, brick, concrete, asphalt roofing materials, pipe,

gypsum wallboard, and lumber from the construction or destruction of a structure project, and includes rocks, soil, tree remains, trees and other vegetative matter that normally results from land clearing. If construction and demolition debris is mixed with any other types of solid waste, it loses its classification as construction and demolition debris. Construction and demolition debris does not include asbestos or liquids including but not limited to waste paints, solvents, sealers, adhesives or potentially hazardous materials. [20.9.1.105.T NMAC]

- *Corrective measures* mean all correction action necessary to protect human health and the environment for all releases of hazardous waste or hazardous constituents from any solid waste management unit at the Facility, regardless of the time at which waste was placed in the unit. Corrective measures may address releases to air, soils, surface water, or ground water.

- *Debris* means solid material exceeding a 60 millimeter (mm) particle size that is intended for disposal and that is: a manufactured object; or plant or animal matter; or natural geologic material. However, the following materials are not debris: any material for which a specific treatment standard is provided in 20.4.1.800 NMAC, incorporating 40 CFR 268, Subpart D, namely, lead acid batteries, cadmium batteries, and radioactive lead solids; process residuals such as smelter slag and residues from the treatment of waste, wastewater, sludges, or air emission residues; and intact containers of hazardous waste that are not ruptured and that retain at least 75 percent of their original volume. A mixture of debris that has not been treated to the standards provided by 20.4.1.800 NMAC, incorporating 40 CFR 268.45, and other material is subject to regulation as debris if the mixture is comprised primarily of debris, by volume, based on visual inspection. [20.4.1.800 NMAC, incorporating 40 CFR 268.2(g)]

- *Evaporation pond* for purposes of this Permit means the Surface Impoundment at the Triassic Park Hazardous Waste Disposal Facility.

- *Extent of contamination* means the horizontal and vertical area in which the concentrations of hazardous constituents in the environmental media being investigated are above detection limits or background concentrations indicative of the Facility, whichever is appropriate as determined by the Secretary. [Section 2.2.1.2 of *Interim Final RCRA Facility Investigation (RFI) Guidance*, EPA, 1989].

- *Facility* for purposes of this Permit means the Triassic Park Hazardous Waste Disposal Facility, including all contiguous land, and structures, other appurtenances, and improvements on the land used for the management of hazardous waste. For the purposes of implementing corrective action under 20.4.1.500 NMAC, incorporating 40 CFR 264.101, or RCRA Section 3008(h), the Facility includes all contiguous property under the control of the owner or operator seeking a permit under 20.4.1 NMAC, incorporating RCRA, Subtitle C. [20.4.1.100 NMAC, incorporating 40 CFR 260.10]

- *Foreign source* means a generator of hazardous waste located outside the United States of America.

- *Free liquids* means liquids which readily separate from the solid portion of a waste under ambient temperature and pressure. ~~[20.4.1.500 NMAC~~[20.4.1.500 NMAC, incorporating 40 CFR 260.10]

- *Hazardous debris* means debris that contains a hazardous waste listed in 20.4.1.200 NMAC, incorporating 40 CFR 261, Subpart D, or that exhibits a characteristic of hazardous waste identified in 20.4.1.200 NMAC, incorporating 40 CFR, Subpart C. Any deliberate mixing of prohibited hazardous waste with debris that changes its treatment classification (i.e., from waste to hazardous debris) is not allowed under the dilution prohibition of 20.4.1.800 NMAC, incorporating 40 CFR 268.3. [20.4.1.800 NMAC, incorporating 40 CFR 268.2(h)]
- *Hazardous waste* means any hazardous waste identified at 20.4.1.200 NMAC, incorporating 40 CFR 261.3.

- *Hazardous waste constituent* means a constituent that caused the Administrator to list the hazardous waste

in part 261, subpart D, of this chapter, or constituent listed in table 1 of Section [illegible] of this chapter.

- *Hazardous Waste Act (HWA)* means the New Mexico Hazardous Waste Act, NMSA 1978, §74-4-1 et seq. (Replacement. Pamph Pamphlet. 1993 1993).

- *Infectious waste* means a limited class of substances that carry a probable risk of transmitting disease to humans, including but not limited to:

  (1) microbiological laboratory wastes, including cultures and stocks of infectious agents from clinical research and industrial laboratories, and disposable culture dishes and devices used to transfer, inoculate and mix cultures;

  (2) pathological wastes, including human or animal tissues, organs, and body parts, removed during surgery, autopsy, or biopsy;

  (3) disposable equipment, instruments, utensils, and other disposable materials which require special precautions because of contamination by highly contagious diseases;

  (4) human blood and blood products, including waste blood, blood serum, and plasma;

  (5) used sharps, including hypodermic needles, syringes, scalpel blades, Pasteur pipettes and broken glass; and

  (6) contaminated animal carcasses, body parts and bedding, especially those intentionally exposed to pathogens in research, in the production of biologicals or the "in vivo" testing of pharmaceuticals. [20.9.1.105.LL NMAC]

- *In light liquid service* (in light material service) means that the piece of equipment contains or contacts a waste stream where the vapor pressure of one or more of the organic components in the stream is greater than 0.3 kilopascals (kPa) at 20□ C, the total concentration of the pure organic components

having a vapor pressure greater than 0.3 kPa at 20 C is equal to or greater than 20 percent by weight, and the fluid is liquid at operating conditions. [20.4.1.500 NMAC, incorporating 40 CFR 264.1031]

- *Interim measures* mean actions necessary to minimize or prevent the further migration of contaminants and limit actual or potential human and environmental exposure to contaminants while long-term corrective action remedies are evaluated and, if necessary, implemented.

- *Leachate* means any liquid, including any suspended components in the liquid, that has percolated through or drained from ~~a~~ hazardous waste. [20.4.1.100 NMAC, incorporating 40 CFR 260.10]

- *Leak detection system* means a system capable of detecting the failure of either the primary or secondary containment structure or the presence of the release of hazardous waste or accumulated liquid in the secondary containment structure. Such a ~~structure~~ system must employ operational controls (e.g., daily visual inspections for releases into the secondary containment system of aboveground tanks) or consist of an interstitial monitoring device designed to detect continuously and automatically the failure of the primary or secondary containment structure or the presence of a release of hazardous waste into the secondary containment structure. [20.4.1.500 NMAC, incorporating 40 CFR 260.10]

- *Municipal solid wastes* mean, normally, residential and commercial solid wastes generated within a community. [40 CFR 240.200 (g)]

- *Nonwastewaters* means wastes that do not meet the criteria for wastewaters ~~provided in 20.4.1.800 NMAC, incorporating 40 CFR 268.2(f)~~. [20.4.800 NMAC, incorporating 40 CFR 268.2~~(d)~~]

- *Offsite source* means a generator of hazardous waste located within the United States of America, but outside the boundary of the Triassic Park Hazardous Waste Disposal Facility. [20.4.1.900 NMAC, incorporating 40 CFR 270.2]

- *Permittee* means Gandy Marley, Inc., 1109 East Broadway, P.O. Box 827, Tatum, Chaves County, New Mexico 88267.

- *Radioactive/nuclear waste* means radioactive/nuclear waste as defined in the Atomic Energy Act of 1954, as amended, or naturally occurring materials as regulated under 20.3.1.14 NMAC, the New Mexico Naturally Occurring Radioactive Materials (NORM) Regulations, or other naturally occurring materials which contain radioactivity concentrations above the concentration levels regulated under 20.3.1.14 NMAC.

- *RCRA* means the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act of 1976 (Pub. L. 94-580, as amended by Pub. L. 95-609 and Pub. L. 96-482, 42 U.S.C.6901, et seq.)

- *Regional Administrator* means the Regional Administrator for the U.S. Environmental Protection Agency, Region VI, or his or her designee. [20.4.1.100 NMAC, incorporating 40 CFR 260.10]

- *Regulated Unit* means a surface impoundment, waste pile, land treatment unit, or landfill that receives hazardous waste after July 26, 1982. [20.4.1.500 NMAC, incorporating 40 CFR 264.90(a)(2)]

- *Release* means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing of any hazardous waste or hazardous constituent into the environment, including the abandonment or discarding of barrels, containers, and other closed receptacles containing a hazardous waste or hazardous constituent. [61 FR 19442]

- *Remediation waste* means all solid and hazardous wastes, and all media (including ground water, surface water, soils, and sediments) and debris which contain listed hazardous wastes, or which themselves exhibit a hazardous waste characteristic, that are managed for the purpose of implementing corrective action requirements in compliance with RCRA, Section 3008(h), and 20.4.1.500 NMAC, incorporating 40 CFR 264.101. [20.4.1.100 NMAC, incorporating 40 CFR 260.10]

- *Secretary* means the Secretary of the New Mexico Environment Department or his/her designee. [20.4.1.102.B.8]

- *Soil* means unconsolidated earth material composing the superficial geologic strata (material overlying bedrock), consisting of clay, silt, sand, or gravel size particles as classified by the U.S. Natural Resources Conservation Service, or a mixture of such materials with liquids, sludges or solids which is inseparable by simple mechanical removal processes and is made up primarily of soil by volume based on visual inspection. Any deliberate mixing of prohibited hazardous waste with soil that changes its treatment classification (i.e., from waste to contaminated soil) is not allowed under the dilution prohibition of 20.4.1.800 NMAC, incorporating 40 CFR 268.3. [20.4.1.800 NMAC, incorporating 268.2(k)]

- *Solid Waste Management Unit (SWMU)* means any discernible unit at which solid waste has been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at the Facility at which solid wastes have been routinely and systematically released. The definition includes permitted units and areas that have been contaminated by routine and systematic releases. The definition does not include one-time accidental spills that are immediately remediated or areas in which waste has not been managed, e.g., a product storage area. [61 FR 19442]

- *Special wastes* mean the following types of nonhazardous solid wastes that have unique handling, transportation, or disposal requirements to assure protection of the environment and the public health, welfare, and safety:

  (1) treated formerly characteristic hazardous wastes;

  (2) packing house and killing plant offal;

  (3) asbestos waste;

  (4) ash;

(5) infectious waste;

(6) sludge, except compost which meets the provisions of 40 CFR 503;

(7) industrial solid waste;

(8) spill of a chemical substance or commercial product;

(9) dry chemicals which, when wetted, become characteristically hazardous; and

(10) petroleum contaminated soils. [20.9.1.105.ZZZ NMAC]

- *Underlying hazardous constituent (UHC)* means any constituent listed in 20.4.1.800 NMAC, incorporating 40 CFR 268.48, Table UTS - Universal Treatment Standards, except fluoride, selenium, sulfides, vanadium, and zinc, which can reasonably be expected to be present at the point of generation of the hazardous waste at a concentration above the constituent-specific UTS treatment standards. [20.4.1.800 NMAC, incorporating 40 CFR 268.2(i)]

- *Vadose zone* means the geologic profile extending from the ground surface to the upper surface of the uppermost water-bearing formation and includes localized areas of saturation such as perched water and capillary fringe regions. [20.9.1.105.HHHH NMAC]

- *Wastewaters* means wastes that contain less than one percent by weight total organic carbon (TOC) and less than one percent by weight total suspended solids (TSS). [20.4.1.800 NMAC, incorporating 40 CFR 268.2(j)]

1.5 DUTIES AND REQUIREMENTS

1.5.1 Duty to Comply

The Permittee shall comply with all conditions in this Permit, except to the extent and for the duration such noncompliance is authorized in an Emergency Permit specified at 20.4.1.900 NMAC, incorporating 40 CFR 270.61. Any Permit noncompliance, except under the terms of an Emergency Permit, constitutes a violation of HWA and/or RCRA and may subject the Permittee, its successors and assigns, officers, directors, employees, parents, or subsidiaries, to an administrative or civil enforcement action, including civil penalties and injunctive relief, under §§74-4-10 or 74-10.1 of HWA, or Section 3008(a) and (g) of RCRA; to Permit modification, suspension, revocation, denial of a Permit application or modification request under §74-4-4.2 of HWA, or Section 3008(d), (e), or (f) of RCRA, or a combination of the foregoing. [20.4.1.900 NMAC, incorporating 40 CFR 270.30(a)]

In any judicial action brought in New Mexico District Court for the First Judicial District under HWA or in the United States District Court for the District of New Mexico under RCRA (or under HWA asserting supplemental jurisdiction under 20 U.S.C. Section 1367), the Permittee waives all objections and defenses it may have to the jurisdiction of either such State or federal court or to venue in either such State or federal district.

1.5.~~3~~2 Admissibility of Data

In any administrative or judicial action to enforce a condition of this Permit, the Permittee waives any objection to the admissibility as evidence of any data generated pursuant to this Permit.

1.5.~~4~~3 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. [20.4.1.900 NMAC, incorporating 40 CFR 270.30(c)]

1.5.~~5~~4 Duty to Mitigate

In the event of noncompliance with this Permit, the Permittee shall take all reasonable steps to minimize releases of hazardous waste or hazardous ~~waste~~ constituents to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment. [20.4.1.900 NMAC, incorporating 40 CFR 270.30(d)]

1.5.~~6~~5 Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all units 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. [20.4.1.900 NMAC, incorporating 40 CFR 270.30(e)]

This provision requires the operation of back-up or auxiliary units or similar systems only when necessary to achieve compliance with the conditions of this Permit.

1.5.~~7~~6 Duty to Provide Information

The Permittee shall furnish to the Secretary, within a reasonable time as specified by the Secretary, any relevant information which the Secretary may request to determine whether cause exists for modifying, suspending, or revoking this Permit, or to determine compliance with this Permit. [20.4.1.500 NMAC, incorporating 40 CFR 264.74(a)]

The Permittee shall also furnish to the Secretary, upon request, copies of records required to be kept by this Permit. [20.4.1.900 NMAC, incorporating 40 CFR 270.30(h)]

1.5.~~8~~7 Inspection and Entry

The Permittee shall allow the Secretary, or his or her authorized representatives, upon the presentation of credentials and other documents as may be required by law, the following entry and inspection privileges, in compliance with 20.4.1.900 NMAC, incorporating 40 CFR 270.30(i):

1.5.~~8~~7.a Entrance to Premises

To enter at reasonable times into the Permittee's premises where a regulated facility or activity is located or conducted, or where records shall be kept under the conditions of this Permit;

1.5.~~8~~7.b Access to Records

To have access to and copy, at reasonable times, any records that shall be kept under the conditions of this Permit;

1.5.~~8~~7.c Inspection

To inspect at reasonable times any units, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and

1.5.~~8~~7.d Sampling

To sample or monitor at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by HWA and/or RCRA, any substances or parameters at any location.

If the Secretary obtains any sample, prior to leaving the premises the Secretary shall give the Permittee a receipt describing the sample obtained and, if requested, a portion of each sample of equal weight or volume to the portion retained. If any analysis is made of the sample, the Secretary shall promptly furnish a copy of the results of the analysis to the Permittee.

Permit Condition 1.5.~~8~~7 shall not be construed to limit, in any manner, the Secretary's authority under HWA, §74-4-4.3, or other applicable laws.

1.5.~~9~~8 Reporting Requirements

1.5.~~9~~8.a Reporting Planned Changes

The Permittee shall give notice to the Secretary, as soon as possible, of any planned physical alterations or additions to the Facility. [20.4.1.900 NMAC, incorporating 40 CFR 270.30(l)(1)]

1.5.~~9~~8.b Reporting Anticipated Noncompliance

The Permittee shall give advance written notice to the Secretary of any planned physical changes to the Facility or any permitted activities which may result in noncompliance with Permit requirements. [20.4.1.900 NMAC, incorporating 40 CFR 270.30(l)(2)]

1.5.~~9~~8.c Certification of Construction or Modification

The Permittee shall not accept hazardous waste at the Facility, or, if the Facility is being modified, the Permittee shall not accept, treat, store, or dispose of hazardous waste in the

modified portion of the Facility, until the following conditions have been satisfied:

1.5.~~9~~8.c.i Submittal of Construction Certification and As-built Specifications

The Permittee has submitted to the Secretary, by certified mail or hand delivery, a letter signed by the Permittee and an independent professional engineer registered in New Mexico stating that the Facility has been constructed or modified in compliance with the Permit, in accordance with Permit Condition 1.10; and

1.5.~~9~~8.c.ii Inspection by the Secretary

The Secretary has either inspected the newly constructed Facility or the modified portion of the Facility and finds it is in compliance with the conditions of this Permit; or waived the inspection; or, within 15 calendar days from the date of submission of the letter required under Permit Condition 1.5.~~9~~8.c.i, has not notified the Permittee of his or her intent to inspect. [20.4.1.900 NMAC, incorporating 40 CFR 270.30(l)(2)]

1.5.~~9~~8.d Twenty-Four Hour and Subsequent Reporting

1.5.~~9~~8.d.i Oral report

Within 24 hours from the time the Permittee becomes aware of any noncompliance which may endanger human health or the environment, the Permittee shall report orally to the Secretary, in compliance with 20.4.1.900 NMAC, incorporating 40 CFR 270.30(~~k~~)(6), the following:

- information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies; and
- any information of a release or discharge of hazardous waste, or of a fire or explosion from the Facility, which could threaten the environment or human health outside the Facility.

1.5.~~9~~8.d.ii Description of Occurrence

The description of the occurrence and its cause shall include, in compliance with 20.4.1.900 NMAC, incorporating 40 CFR 270.30(k)(6)(ii):

- name, address, and telephone number of the Permittee;
- name, address, and telephone number of the Facility;
- date, time, and type of incident;
- name and quantity of materials involved;
- the extent of injuries, if any;
- an assessment of actual or potential hazards to the environment and human health outside the Facility, where this is applicable; and
- the estimated quantity and disposition of recovered material that resulted from the incident.

1.5.~~9~~8.d.iii Written Submission

The Permittee shall submit a written submission within five calendar days from the time the Permittee becomes aware of the noncompliance. The written submission shall contain, in compliance with 20.4.1.~~500~~ NMAC, incorporating 40 CFR 270.30(~~k~~)(6)(iii):

- ~~A~~a description of the noncompliance and its cause;
- ~~T~~the period(s) of the noncompliance, including exact date(s) and time(s), and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
- ~~S~~steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

The Secretary may waive the five-day written submission requirement in favor of a written report to be submitted within 15 calendar days.

1.5.~~9~~8.e Contingency Plan Implementation

If Permit Attachment C, *Contingency Plan*, is implemented, the Permittee shall comply with the reporting requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264.56(j).

1.5.~~9~~8.f Other Noncompliance

The Permittee shall report to the Secretary all other instances of noncompliance not otherwise required to be reported in Permit Condition 1.5.~~9~~8 at the time the reports required under Permit Condition ~~2.12.3~~ [there is no 2.12.3] are submitted. The report shall contain the information listed in Permit Condition 1.5.~~9~~8.d. [20.4.1.900 NMAC, incorporating 40 CFR 270.30(l)(10)]

1.5.~~9~~8.g Other Information

Whenever the Permittee becomes aware that the Permittee failed to submit any relevant facts in the Permit Application, or submitted incorrect information in the Permit Application or in any report to the Secretary, the Permittee shall promptly submit such facts or information in writing to the Secretary. [20.4.1.900 NMAC, incorporating 40 CFR 270.30(l)(11)]

1.6 SIGNATORY REQUIREMENT

The Permittee shall sign and certify all applications or reports submitted to or requested by the Secretary or required by this Permit. [20.4.1.900 NMAC, incorporating 40 CFR 270.11 and 270.30(k)]

1.7 REPORTS AND NOTIFICATIONS SUBMITTED TO THE SECRETARY

The Permittee shall submit two copies of all reports and notifications required by this Permit by certified mail, hand delivery, or special delivery service. Submissions shall be sent to:

Chief, Hazardous Waste Bureau
New Mexico Environment Department
2044 Galisteo, Building A
Santa Fe, New Mexico 87505-2100

Telephone Number: 505/827-1557
Facsimile Number: 505/827-1544

1.8 CONFIDENTIAL INFORMATION

The Permittee may claim confidentiality for any information submitted to or requested by the Secretary or required by this Permit to the extent authorized by HWA §74-4-4.3(D) and 20.4.1.900 NMAC, incorporating 40 CFR 270.12.

1.9 DOCUMENTS TO BE MAINTAINED AT THE FACILITY

1.9.1 Documents to be Maintained until Completion of Closure

The Permittee shall maintain at the Facility, until completion of closure as specified at Part 8 of this Permit has been approved by the Secretary, the following documents and all current amendments, revisions, and modifications to these documents:

- Permit Attachment F1, *Waste Analysis Plan*. [20.4.1.500 NMAC, incorporating 40 CFR 264.13(b) and this Permit]
- Permit Attachment D, *Inspection Schedules and Checklists*, and Appendix D1, *Inspection Schedules and Checklists*. [20.4.1.500 NMAC, incorporating 40 CFR 264.15(b)(2) and 264.15(d) and this Permit]
- Permit Attachment ~~xxx~~E, and personnel training documents and ~~and~~ records. [20.4.1.500 NMAC, incorporating 40 CFR 264.16(d) and this Permit]
- Permit Attachment C, *Contingency Plan*, including summary reports and details of all incidents that require implementation of the Contingency Plan. [20.4.1.500 NMAC, incorporating 40 CFR 264.53(a) and this Permit]
- The Operating Record. [20.4.1.500 NMAC, incorporating 40 CFR 264.73, and Permit Condition 2.12.1]
- Permit Attachment O, *Closure Plan*, and Appendices O1, *Compliance Schedule for Closure*, and O2, *Cost Estimates for Closure*. [20.4.1.500 NMAC, incorporating 40 CFR 264.112(a) and this Permit]

1.9.2 Documents to be Maintained until Completion of Post-Closure Care

The Permittee shall maintain, at the Facility or other appropriate location approved by the Secretary, until completion of post-closure care as specified at Permit Part 9 has been approved by the Secretary, the following documents and all amendments, revisions, and modifications to these documents:

- Permit Attachment I, *Vadose Zone Monitoring Work Plan*. [Permit Condition 7.4]
- Permit Attachment P, *Post-Closure Care Plan*, and Appendix P1, *Cost Estimates for Post-Closure Care*. [20.4.1.500 NMAC, incorporating 40 CFR 264.118(a) and this Permit]

1.10 COMPLIANCE SCHEDULE

The Permittee shall submit documents, plans, certifications, and as-built specifications to the Secretary for approval in compliance with the schedule provided in Table 1-1, *Compliance Schedule*, in accordance with 20.4.1.500 NMAC, incorporating 40 CFR 270.33. Written notification of compliance or noncompliance with any item identified in the schedule shall be submitted according to the schedule date. Submittal of a required item according to the schedule constitutes notification of compliance.

All plans and schedules required to be submitted by the conditions of this Permit are, upon approval of the Secretary, incorporated into this Schedule of Compliance by reference and become an enforceable part of this Permit. Any noncompliance with such approved plans shall be termed noncompliance with this Permit. Extension of the due dates for submittals may be granted by the Secretary in accordance with 20.4.1.900 NMAC, incorporating 40 CFR 270.41 and/or 270.42.

TABLE 1-1

COMPLIANCE SCHEDULE

PERMIT CONDITION	DOCUMENT/ INFORMATION	DUE DATE
1.5.~~9~~.c.i	Submittal of construction certification and as-built specifications	Prior to initiation of operations
2.1.2	Zoning Change	Prior to initiation of operations
2.2.3	Stormwater Discharge Permit	Prior to ~~initiation of operations~~ initial receipt of hazardous waste at the facility
2.5.1.a.iii	Annual Sampling and Analysis	60 days prior to acceptance of waste
2.5.1.a.i	Work Profile Form(s) Submittal	15 days prior to acceptance of waste
2.5.1.a.ii	Provision of sample representativeness evaluation criteria, and criteria to assess whether additional waste analysis is required	30 days prior to acceptance of new waste stream
2.5.2	Sampling and Analysis Plan	60 days prior to acceptance of waste
2.5.3	Health and Safety Plan	60 days prior to initiation of operations
2.5.5	Standard Operating Procedures	60 days prior to initiation of operations
2.5.4	Laboratory Quality Assurance/Quality Control Plan	30 days ~~P~~prior to initiation of operations
2.5.1.c	Inspection forms which address emergency equipment	30 days prior to initiation of operations

PERMIT CONDITION	DOCUMENT/ INFORMATION	DUE DATE
2.3.1.a	Training for all employees involved in incident response	60 days prior to initiation of operations
2.3.1.b	Training for Laboratory personnel	60 days prior to initiation of operations
2.3.1.c	Training for waste handlers and maintenance personnel	60 days prior to initiation of operations
2.10.6	Notification of Agreements with Local Authorities	30 days ~~P~~prior to initiation of operations
2.10.7	Notification of Water Rights Sufficiency	30 days ~~P~~prior to initiation of operations
2.11.5	Updated Contingency Plan	At the time of Permit Certification
2.11.5.a	List of Emergency Coordinators	15 days prior to initiation of operations
2.11.5.b	Evacuation Plan	Prior to initiation of operations
2.11.5.c	Surface Impoundment Failure	Prior to initiation of operations
2.11.5.d	List of Satellite Accumulation Areas and 90-Day Storage Areas	Prior to initiation of operations and when a satellite accumulation area is developed on site
2.11.5.e	Decontamination of Personnel and Equipment	15 days prior to initiation of operations
2.11.5.g	Emergency Response Team Members	15 days prior to initiation of operations
2.15.1	New Source Air Emissions Permit	~~15 days prior to initiation of operations~~Prior to initiation of operations
2.16	Ground Water Protection	Prior to initiation of operations

PERMIT CONDITION	DOCUMENT/ INFORMATION	DUE DATE
~~2.19~~ moved [illegible]	~~Documentation of Financial Assurance for Closure/Post-Closure Care~~	~~60 days prior to initiation of operations~~
~~2.20.1.b; 2.20.2.b~~ moved to [illegible] and [illegible]	~~Documentation of Liability Coverage for Sudden Accidental Changes~~	~~60 days prior to initiation of operations~~
[illegible]	Background Work Plan establishing background concentrations in soil	75 days prior to acceptance of waste
~~3.2.4~~ [There is no 3.2.4]	Compatibility Tests for the Drum Handling Unit	60 days prior to the initiation of operations
~~3.2.5~~ [There is no 3.2.5]	Compatibility Tests for the Roll-Off Container Storage Area	60 days prior to the initiation of operations
[illegible]	Tank System Certification	60 days prior to initiation of [illegible]
[illegible]	Tank System As-Built Specifications	60 days prior to initiation of [illegible]
~~5.1.4.a~~ [There is no 5.1.4.a]	Surface Impoundment system CQA certification	60 days prior to initiation of operations
[illegible]	Materials and methods used to modify or lay liner materials if necessary	60 days prior to initiation of [illegible]
[illegible]	Information on perimeter dike design and construction	60 days prior to initiation of [illegible]
[illegible]	Information on inspection of perimeter dikes	60 days prior to initiation of [illegible]

PERMIT CONDITION	DOCUMENT/ INFORMATION	DUE DATE
[illegible]	Submittal of CQA certification after construction	60 days prior to initiation of [illegible]
[illegible]	Landfill leak access ramp construction notification	60 days prior to initiation of construction
[illegible]	Landfill stormwater collection basin removal notification	60 days prior to [illegible]
[illegible]	Landfill contaminated water collection basin removal notification	60 days prior to [illegible]
[illegible]	Landfill QA certification	60 days prior to initiation of [illegible]
[illegible]	Revised specific monitoring wells and sump numbers	60 days prior to initiation of [illegible]
[illegible]	Requires the installation of 4 deep vadose zone monitoring wells	60 days prior to initiation of [illegible]
[illegible]	Requires the installation of 3 shallow vadose zone monitoring wells	60 days prior to initiation of [illegible]
[illegible]	Requires the installation of 3 vadose zone monitoring sumps	60 days prior to initiation of [illegible]
[illegible]	Documentation of Financial Assurance for Closure/Post-Closure Care	60 days prior to initiation of [illegible]
~~2.21.1.b;~~ ~~2.21.2.b~~ [illegible]	Documentation of Liability Coverage for Gradual and Non-sudden Accidental Changes	60 days prior to initiation of [illegible]

PERMIT CONDITION	DOCUMENT/ INFORMATION	DUE DATE
[illegible]	[illegible] Corrective Action Work Plan Submittal	Within 90 days after the effective date of the Permit

COMMENT: Additional documents and Permit Condition #s to be inserted when identified

PERMIT ATTACHMENTS REFERENCED IN PERMIT PART 1

Permit Attachment	Document or Plan
A	General Facility Description and Information
B	Procedures to Prevent Hazards
B1	Emergency Equipment
C	Contingency Plan
C1	Emergency Coordinators
C2	Evacuation Plans
D	Inspection Procedures
D1	Inspection Schedules and Checklists
E	Personnel Training and Records
F1	Waste Analysis Plan
F2	Pre-acceptance
G	Air Quality
I	Vadose Zone Monitoring System Work Plan
I1	Background Concentrations for Soil
J	Response Action Plan
K	40 CFR Subparts AA, BB, and CC Regulations
L	Engineering Report and Drawings
M	Construction Quality Assurance Plan
N	Operations and Monitoring Plan
O	Closure Plan
O1	Schedule for Closure
O2	Cost Estimates for Closure
P	Post Closure Care Plan
P1	Cost Estimates for Post-Closure Care

PERMIT PART 2

GENERAL FACILITY CONDITIONS

HIGHLIGHTS

This Part contains conditions covering ~~general facility requirements~~General Facility Requirements for the Triassic Park Hazardous Waste Disposal Facility (the Facility).

The Facility is a commercial Resource Conservation and Recovery Act (RCRA) Subtitle C hazardous waste treatment, storage, and disposal operation. The Facility is permitted to store hazardous waste in the Drum Handling Unit, the Roll-Off Container Storage Unit, and the Liquid Waste Storage Tanks~~;~~. The Facility may treat ~~the~~ hazardous waste by evaporation in the Surface Impoundment and by solidification in the Stabilization Bins~~;~~ and dispose of ~~the~~ hazardous waste in the Landfill. Permit conditions for these permitted units are contained at Permit Parts 3 through 6. Other units at the Facility are operated as ~~90 day~~ 90-day generator storage units or satellite accumulation points. These units are not permitted under this Permit but are regulated under RCRA.

Permit conditions for vadose zone monitoring in lieu of ground water monitoring are contained at ~~Permit~~ Part 7 of the Permit. Conditions for closure of the Facility and for post-closure care for the Landfill are contained at ~~Permit~~ Part 8 ~~and~~ of the Permit~~, respectively~~. ~~Permit~~ Part~~s~~ 9 ~~10 and 11~~ of the Permit contains conditions for corrective action.

General information on the Facility and Facility operations is contained at Permit Attachment A, *General Facility Description and Process Information*, and Permit Attachment L, *Engineering Report and Drawings*, Section 2.1, *General Facility Design Elements*. The Facility layout is provided at Permit Attachment L, Drawing No. 4.

Hazardous wastes which may be managed at this Facility are listed at Table 2-1, *Permitted Hazardous Wastes*, by U.S. Environmental Protection Agency (EPA) Hazardous Waste Number as identified at 20.4.1.200 NMAC, incorporating 40 CFR 261, Subparts C and D.

2.1 CONSTRUCTION AND OPERATION

2.1.1 General Construction Requirements

The Permittee shall construct, maintain, and operate the Facility as specified at Permit Attachment A, Section 2.0, *Treatment, Storage, and Disposal*, and Permit Attachment L, and in compliance with 20.4.1 NMAC, incorporating 40 CFR 260 through 273 and this Permit. The Permittee shall follow the specifications contained at Permit Attachment L and Permit Attachment M, *Construction Quality Assurance Plan*, for construction of the Surface Impoundment and Landfill, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.19 and this Permit. The Permittee shall ensure that the construction, maintenance and operation of the Facility minimizes the possibility of a fire, explosion, or any unplanned, sudden, or non-sudden release of hazardous waste to air, soil, ground water, or surface water which could threaten human health or the environment, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.31.

2.1.2 Zoning Change

The Permittee shall submit to the Secretary a copy of the appropriate zoning change for the Facility site approved by the appropriate Chaves County, New Mexico, authorities as specified at Permit Attachment A, Section 1.3, *Location Information*, before initiation of operations at the Facility, in accordance with Permit Condition 1.10. [May want to check with legal department if this can be required in accordance with NMED regulations.]

2.2 RUN-ON AND RUN-OFF

2.2.1 Design of the Stormwater Detention Basin

The Permittee shall construct the stormwater detention basin as specified at Permit Attachment L, Section 2.1.4, *Facility Storm Water Control*.

2.2.2 Design of Additional Run-On/Run-Off Controls

The Permittee shall construct run-on diversion ditches, run-off collection ditches, and the ~~clean~~ uncontaminated water and contaminated water detention basins at the Landfill area as specified at Permit Attachment L, Section 2.1.4. The contaminated water detention basin shall be sampled after each rain event as specified at Permit Attachment A, Section 2.5.1.6,

Run-On/Run-Off Control, analyzed for hazardous waste constituents, and disposed of appropriately.

2.2.3 Stormwater Discharge Permit

The Permittee shall submit to the Secretary documentation that the Facility has obtained a stormwater permit ~~for the Facility~~ issued by EPA or a letter from EPA documenting that a stormwater permit is not necessary prior to initial receipt of hazardous waste at the Facility in accordance with Permit Condition 1.10.

2.3 PERMITTED AND PROHIBITED WASTE SOURCES

2.3.1 Hazardous Waste from a Foreign Source

The Permittee shall not accept hazardous waste from a foreign source. If the Permittee wishes to receive hazardous waste from a foreign source, the Permittee must apply for and receive a modification to this Permit issued by EPA prior to accepting such waste. [20.4.1.900 NMAC, incorporating 40 CFR 270.41 and 270.42]

2.3.2 Hazardous Waste from an Off-Site Source

The Permittee shall accept hazardous waste from off-site sources in accordance with Permit Attachment F1, *Waste Analysis Plan*, Sections 4.3, *Pre-Acceptance Procedures for Off-Site Waste*, and 4.4, *Procedures for Incoming Waste Acceptance*.

2.3.3 Hazardous Waste Generated at the Facility

The Permittee shall manage hazardous waste generated at the Facility in accordance with Permit Attachment F2, Section 4.5.6, Waste *Analysis Requirements for Waste Generated On-site*.

2.4 PERMITTED AND PROHIBITED WASTE

2.4.1 Permitted Waste

2.4.1.a Permit Application, Part A

The Permittee shall accept only the hazardous wastes identified at Permit Attachment Q, *Permit Application - Part A*, and listed at Table 2-1.

2.4.1.b Other Permitted Waste

The Permittee may accept bulk polychlorinated biphenyl (PCB)-contaminated remediation waste.

2.4.1.c Acceptance of Waste on an Emergency Basis

The Permittee may accept hazardous waste that is not identified at Permit Conditions 2.4.1.a or 2.4.1.b or that is prohibited at Permit Condition 2.4.2 only if the waste has been approved for receipt by the Secretary on an emergency basis and the Facility has obtained an emergency permit in accordance with 20.4.1.900 NMAC, incorporating 40 CFR 270.61.

2.4.2 Prohibited Waste Streams

2.4.2.a General Prohibition

The Permittee is prohibited from accepting, storing, treating, or disposing of the wastes specified at Permit Attachment F1, Section 4.1.2, *Prohibited Waste*. In addition, the Permittee is prohibited from accepting waste containing biodegradable sorbents as specified in Permit Attachment F1, Section 4.3.3.2, *Minor Discrepancies*.

2.4.2.b Prohibited Waste at Specific Units

2.4.2.b.i 40 CFR, Subparts BB and CC

The Permittee is prohibited from managing hazardous wastes subject to the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264, Subparts BB and/or CC, in the Liquid Waste Storage Tank Area, the Stabilization Building, and the Surface Impoundment.

2.4.2.b.ii Land Disposal Restrictions

The Permittee is prohibited from managing any hazardous waste in the Surface Impoundment or the Landfill that does not meet the Land Disposal Restrictions (LDR) treatment standards.

2.5 WASTE ANALYSIS PLAN

2.5.1 General Waste Analysis Requirements

The Permittee shall follow the waste analysis procedures required at 20.4.1.500 NMAC, incorporating 40 CFR 264.13 and 20.4.1.800 NMAC, incorporating 40 CFR 268.7, and specified at Permit Attachment F1. Analytical Methods are addressed in Permit Attachment F1, Section 4.7, *Analytical Methods.*

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.

2.5.1.a Waste Analysis Requirements

The Permittee~~s~~ shall perform the following waste analysis as presented in Permit Attachment F2, Section 4.5, *Waste Analysis*:

- pre-Shipment Characterization of a representative sample from each waste stream prior to shipment as described in Permit ~~Part~~ Conditions 2.5.1.a.i and 2.5.2.a.ii
- fingerprint analysis of a select portion of waste upon arrival as described in Permit Part 2.5.1.a.ii and continued fingerprint analysis of waste as specified in Permit ~~Part~~ Conditions 2.5.1.a.iv and 2.5.1.a.v
- annual re-analysis as specified in Permit ~~Part~~ Condition 2.5.1.a.iii
- additional Analysis as specified in Permit ~~Part~~ Condition 2.5.1.a.iv
- characterization of waste generated on-site as specified in Permit ~~Part~~ Condition 2.5.1.a.v

Analytical parameters for each waste analysis requirement are specified in Permit ~~Parts~~ Conditions 2.5.1.a.i-iv and must be selected, as applicable, to meet waste characterization requirements, additional analysis to ensure compliance with LDR treatment standards, and additional analysis to ensure compliance with regulations and operational limits as specified in Permit Attachment F2.

2.5.1.a.i Representative Sample Analysis

The Permittee shall obtain a representative waste stream sample prior to waste shipment which the Permittee shall submit to an offsite laboratory for analysis as described in Permit ~~Part~~ Condition 2.5.2.a and Permit Attachment F1, Section 4.3.3, *Representative Sample Analysis and Evaluation and* Section 4.5.2, *Representative Sample Analysis*. Representative Analysis shall include, at a minimum, the parameters listed in Permit Attachment F1, Table 4-1, *Parameters and Methods for Pre-Acceptance Representative Sample Analysis* and shall include ~~compatability~~ compatibility analysis as described in Permit Attachment F2. The Permittee~~s s~~shall augment the parameter list specified in Table 4-1 with parameters presented in Table 4-2, *Analytical Methods for Fingerprint Analysis* and Table 4-3, *Additional Analytical Methods* on a waste stream basis and as required to ensure complete analysis as required in Permit ~~Part~~ Condition 2.5.2 and Permit Attachment F2.

2.5.1.a.ii Fingerprint Sampling and Analysis

Fingerprint sampling and analysis shall be performed as specified in Permit Attachment F1, Section 4.4.3.1, *Fingerprint Tests* and Section 4.5.4, *Fingerprint analysis*. All waste, except for debris waste, is subject to fingerprint sampling and analysis upon waste acceptance. Fingerprint analyses shall include, at a minimum, the parameters listed in Permit Attachment F1, Table 4-2, *Analytical Methods for Fingerprint Samples*, and shall be sampled and analyzed following protocols and analytical frequencies specified in Permit ~~Part~~ Condition 2.5.1.2. Reduction in fingerprint sampling and analysis frequency shall occur in accordance with Permit ~~Part XXX~~ Condition 1.2.4. If discrepancies between fingerprint analysis and waste stream characterization information exist upon completion of discrepancy resolution presented in Permit Attachment F1, Section 4.4.4.1, *Discrepancy Resolution*, the waste shall be rejected within 90 days of identifying the discrepancy.

2.5.1.a.iii Annual Sampling and Analysis

The Permittee shall obtain a representative sample analysis from each facility prior to waste acceptance as specified in Permit ~~Part~~ Condition 2.5.2.a and annually thereafter, as described in Permit Attachment F1, Section 4.5.3, *Annual Analysis*. ~~The Permittee shall evaluate the representativeness of the sample in~~

REVISIONS – Part 1

Permit Condition – Revised/New or Revision to Attachment	Author	Description
1.1	J. Merkle	Spell out "Replacement Pamphlet" rather than abbreviate
1.2.2	J. Dreith	Text change
1.2.4	J. Dreith	Revised incorrect citation
1.3	J. Dreith	Added Federal citation
1.4 (1st bullet)	J. Dreith	Added NMAC to citation
1.4 (3rd bullet)	J. Dreith	Added additional Federal citation
1.4 (6th bullet)	J. Merkle	Spell out millimeter
1.4 (12th bullet)	J. Dreith	Revised incorrect citation
1.4 (16th bullet)	J. Dreith	Corrected degree character
1.4 (14th bullet)	J. Merkle	Add "Hazardous waste constituents"
1.4 (19th bullet)	J. Merkle	Text change
1.4 (20th bullet)	J. Merkle	Text change
1.4 (21st bullet)	J. Dreith	Added the bullet
1.4 (22nd bullet)	J. Merkle	Added citation
1.4 (27th bullet)	J. Merkle	Punctuation correction
1.4 (32nd bullet)	J. Merkle	Punctuation correction
1.4 (37th bullet)	J. Merkle	Corrected citation
1.5.3 through 1.5.9.g	J. Dreith	Corrected numbering. 1.5.2 was omitted from original document. Revised numbers to include 1.5.2. Numbers now read 1.5.2 through 1.5.8.g
1.5.4	J. Merkle	Deleted the word "waste"
1.5.7.d	J. Dreith	Corrected reference to Permit Condition 1.5.8 in third paragraph to read 1.5.7.
1.5.8.c.ii	J. Dreith	Corrected reference to Permit Condition 1.5.9.c.i to read 1.5.8.c.i.
1.5.8.d.i	J. Dreith	Revised Federal citation and revised text
1.5.8.d.iii	J. Dreith	Revised incorrect State and Federal citation, revised capitalization of bullets to be consistent with previous Permit condition, 1.5.9.d.ii.

Permit Condition – Revised/New or Revision to Attachment	Author	Description
1.5.8.f	J. Dreith	Deleted reference to Permit condition 2.12.3 since there is no such condition. NOTE: replacement condition was not specified, was not sure which condition NMED wishes to include.
1.5.8.f	J. Dreith	Corrected references to Permit Conditions 1.5.9 and 1.5.9.d to read 1.5.8 and 1.5.8.d, respectively.
1.9.1	J. Dreith	Text change
1.9.1 (3rd bullet)	J. Dreith	Added correct attachment reference
Table 1-1 1.5.8.c.i	J. Dreith	Corrected Permit Condition number 1.5.9.c.i - should be 1.5.8.c.i.
Table 1-1 2.5.1.9.iii	J. Dreith	Added to compliance schedule, criteria for waste sample representativeness
Table 1-1 2.5.2.a.i	J. Dreith	Added provision of acceptable knowledge evaluation criteria
Table 1-1 2.5.2.a.ii	J. Dreith	Added provision of sample representativeness evaluation criteria, and criteria to assess whether additional waste analysis is requested
Table 1-1 2.5.3	J. Dreith	Added Sampling and Analysis Plan
Table 1-1 2.5.3	J. Dreith	Added Health and Safety Plan
Table 1-1 2.5.3	J. Dreith	Added Standard Operating Procedures
Table 1-1 2.5.4	J. Dreith	Added correct name of document
Table 1-1 2.7.1.c	J. Dreith	Added compliance schedule. The facility, in the last response to the September 12, 2000 NOD, commits to providing the inspection forms for the emergency equipment located at each unit. Therefore, this will be a compliance issue.

Permit Condition – Revised/New or Revision to Attachment	Author	Description
Table 1-1 2.8.1.a	J. Dreith	Added training for all employees involved in incident response.
Table 1-1 2.8.1.b	J. Dreith	Added training for laboratory personnel.
Table 1-1 2.8.1.c	J. Dreith	Added training for waste handlers and maintenance personnel.
Table 1-1 2.10.6	J. Dreith	Added correct name of condition
Table 1-1 2.11.5	J. Dreith	Added this condition to the table of compliance schedules
Table 1-1 2.11.5.a	J. Dreith	Added correct Permit citation
Table 1-1 2.11.5.b	J. Dreith	Added Evacuation Plan
Table 1-1 2.11.5.c	J. Dreith	Added Surface Impoundment Failure
Table 1-1 2.11.5.d	J. Dreith	Added this condition to the table of compliance schedules
Table 1-1 2.11.5.e	J. Dreith	Added permit condition which requires the decontamination procedures to be provided as part of the updated Contingency Plan.
Table 1-1 2.11.5.g	J. Dreith	Added permit condition which requires that the names of members of the emergency response team be submitted to NMED.
Table 1-1 2.15.1	J. Dreith	Added correct Permit citation
Table 1-1 2.16	J. Dreith	Added this condition to the table of compliance schedules
Table 1-1 2.19	J. Dreith	Added correct Permit citation

Permit Condition – Revised/New or Revision to Attachment	Author	Description
Table 1-1 2.20	J. Dreith	Added correct Permit citation (then moved to 8.3.2.a)
Table 1-1 2.21.1.b; 2.21.2.b (moved to 8.3.3.a.ii and 8.3.3.b.ii)	J. Dreith	Added correct Permit number
Table 1-1 2.23	J. Dreith	Changed to correct Permit citation (2.19)
Table 1-1 3.2.4	J. Dreith	There is no 3.2.4 in the Draft Permit. Could not locate proper citation.
Table 1-1 3.2.5	J. Dreith	There is no 3.2.5 in the Draft Permit. Could not locate proper citation.
4.2.6	J. Dreith	Added Tank System Certification to Table 1-1
4.2.7	J. Dreith	Added Tank System As-Built Specification to Table 1-1
Table 1-1 5.1.4.a	J. Dreith	There is no 5.1.4.a in the Draft Permit. Could not locate proper citation.
Table 1-1 5.2.1.a	M. Smith	Added this permit condition to the table of compliance schedules
Table 1-1 5.2.1.c.ii	M. Smith	Added this permit condition to the table of compliance schedules
Table 1-1 5.3.2	M. Smith	Added this permit condition to the table of compliance schedules
Table 1-1 5.7.3.a	M. Smith	Added this permit condition to the table of compliance schedules
Table 1-1 6.2.1.f	J. Dreith	Added this permit condition to the table of compliance schedules
Table 1-1 6.2.1.g.i	J. Dreith	Added this permit condition to the table of compliance schedules
Table 1-1 6.2.1.g.ii	J. Dreith	Added this permit condition to the table of compliance schedules
Table 1-1 6.7.2.a	J. Dreith	Added this permit condition to the table of compliance schedules

Permit Condition – Revised/New or Revision to Attachment	Author	Description
Table 1-1 7.2.1	J. Dreith	Added this permit condition to the table of compliance schedules
Table 1-1 7.2.1.a	J. Dreith	Added this permit condition to the table of compliance schedules
Table 1-1 7.2.1.b	J. Dreith	Added this permit condition to the table of compliance schedules
Table 1-1 7.2.1.c	J. Dreith	Added this permit condition to the table of compliance schedules
Table 1-1 8.3.2.a	J. Dreith	Moved from 2.19
Table 1-1 8.3.3.a.ii and 8.3.3.b.ii	J. Dreith	Added correct permit condition number
Table 1-1 10.4	J. Dreith	Added this permit condition to the table of compliance schedules

REVISIONS – Part 2

Permit Condition – Revised/New or Revision to Attachment	Author	Description
Highlights, ¶ #1	J. Dreith	Capitalized "General" and "Requirements" to make it consistent.
Highlights, ¶ #2	J. Dreith, J. Merkle	Modified sentence structure and minor text changes.
Highlights, ¶ #2	J. Dreith	Added the word "generator" between "90 day" and "storage."
Highlights, ¶ #3	J. Dreith, J. Merkle	Restructured sentences. Correct reference to Permit Parts 8, 9, 10 and 11 to Parts 8 and 9.
Highlights, ¶ #5	J. Merkle	Punctuation correction
2.2.2	J. Dreith, J. Merkle	Removed the description of "clean water" pond and referred to it as "uncontaminated water" pond. Added the word "waste" to "hazardous constituents."
2.2.3	J. Dreith	Restructured sentence to include the language …Secretary documentation that the facility has obtained a stormwater permit issued by EPA…
2.4 and 2.4.1	J. Dreith	Format issue; lined up titles.
2.4.1.c	J. Dreith	Added the following wording to the end of the sentence: …basis, "and the facility has obtained an Emergency Permit in accordance with 20.4.1.900 NMAC, incorporating 40 CFR 270.61."
2.4.2.a	J. Dreith	Changed Permit Attachment F to Permit Attachment F1
2.4.2.b.i	J. Dreith	Format issue; lined up titles.
2.5.1, 2.5.2, 2.5.2.a, 2.5.4, 2.5.5, 2.5.6, 2.5.7, etc.	J. Dreith	Format issue; lined up titles.
2.5.1.a	C. Walker	Added explanatory text to ensure that complete waste analysis requirements are spelled out. Pulled out Section 4.5.1.1; this shall be re-edited to be attachment F3 which presents decision criteria for establishing the various required analysis.

Permit Condition – Revised/New or Revision to Attachment	Author	Description
2.5.1.a.i	C. Walker	Recommend changing minimum analysis for pre-shipment representative sampling to include Table 4-1 at a minimum, plus additional analysis as required to meet criteria in F2 and to include as necessary elements from 4-2 and 4-3 (removed open-ended initial analysis to add a "baseline"). Recommend requiring provision of criteria to determine sample representativeness.
2.5.1.a.ii	C. Walker	Recommend changing minimum analysis for fingerprinting to be Table 4-2 (fingerprinting is not specified and p.4-13 only requires color and viscosity—too little).), with additional analysis as necessary. Cannot reduce fingerprinting without permit mod (application stated that the fingerprinting could be reduced at any time- p. 4-13). Added requirement for rejection (90 days) if discrepancy noted so waste does not stay onsite for an undefined time period.
2.5.1.a.iii	C. Walker	Recommend changing annual analysis to include, at minimum, pre-shipment analytical suite (i.e. Table 4-1) plus additional parameters as necessary; recommend inclusion to require provision of criteria for evaluation (missing from application). Clarified when new WPF is to be provided. Also included provisions regarding actions to be taken if annual analysis are inconsistent with WPF.
2.5.1.a.iv	C. Walker	Clarified specific analysis that shall be performed at each unit/each movement of waste (should be consistent with intent of the application, but required a lot of clarification). Clarified when incompatibility analysis performed and referenced F2 for criteria.
2.5.1.a.v	C. Walker	Insert correct permit attachment references, as Attachment F1 references the permit application.

Permit Condition – Revised/New or Revision to Attachment	Author	Description
2.5.1.a.vi	C. Walker	Clarified when compatibility analysis performed. Should be consistent with intent of the application; application was unclear.
2.5.2	C. Walker	Added text to clarify that purpose of characterization is to ensure adequate characterization to meet 264 requirements
2.5.2.a.i	C. Walker	Added section specifying provision of Waste Profile Form for each Waste Stream and specifying that this form cannot be randomly changed (i.e. requires a permit modification to do so… the Attachment allows such random changes). Added reference to Attachment that includes the Waste Profile Form (F3). Also added requirement to provide acceptable knowledge evaluation criteria by a specific date – compliance schedule.
2.5.2.a.ii	C. Walker	Added requirement that representative sample be obtained after initial paperwork evaluation is completed (not provided with paperwork to ensure holding times are met, etc). Included compliance schedule for provision of representativeness evaluation criteria.
	C. Walker	Added Section to include more elements in the "major discrepancy" category and to require submission of the generator's Sampling Plan mentioned in the text to the Permittee for inclusion in the Operating Record. Also suggest requiring Permittee to provide criteria to determine whether additional sampling is necessary.
2.5.2.b (new)	C. Walker	Added section to deal with procedures for incoming waste acceptance, and to clarify that waste with unresolved manifest discrepancies cannot sit at the site in perpetuity).
2.5.2.c	C. Walker	Corrected numbering.

Permit Condition – Revised/New or Revision to Attachment	Author	Description
2.5.3	C. Walker	Inclusion of the sampling and analysis protocols for each waste stream should be specifically required for inclusion in the operating record. Also added time frame for provision of Sampling and Analysis plan referenced in the Permit Application, including content of the Plan. Required (compliance schedule) provision of the Health and Safety Plan as well as SOPs as stated in the Permit Application (clarified that these must be provided before waste is accepted). Added reference to EPA QA/G-5 for preparation of the QAPP (referenced WAP guidance is not sufficient).
2.5.4	J. Dreith	Permit Condition 2.5.4 references Section 4.9.2 of Permit Attachment F. Corrected to reference 4.7.2.
2.5.6	J. Dreith	Permit Condition 2.5.6 references Section 4.9.2.3 of Permit Attachment F. Corrected to reference Section 4.7.2.3.
2.5.7	J. Dreith, J. Merkle	Added reference to Permit Attachment F1.
2.6.3	J. Merkle	Added italics to the title "Warning Signs."
2.7.1.c (New Condition)	J. Dreith	The September 12, 2000 response to NMED's NOD committed the Facility to providing an inspection log form for emergency equipment at each of the permitted units. This Permit Condition requires the Facility to provide this information 30 days prior to initiation of operations.
2.7.4	J. Merkle	Corrected reference to Permit Condition 2.12.1.l.
2.8	J. Dreith, J. Merkle	Added citations 20.4.1.500 NMAC, incorporating 40 CFR 264.16. Corrected title of Permit Attachment E.
2.8.1	J. Dreith, J. Merkle	Permit Condition 2.8.1 references Permit Attachment F, Section 4.8.2.1, training requirements for personnel responsible for sample collection. This section is not included in the Waste Analysis Plan. One option may be to take it from the old application and make it Permit Attachment E1. Also corrected capitalization of section title.

Permit Condition – Revised/New or Revision to Attachment	Author	Description
2.8.1.a (New Condition)	J. Dreith	Added Training for Emergency Coordinator, Alternate Emergency Coordinator and all Waste Handlers and Maintenance Personnel involved in Incident Response.
2.8.1.b (New Condition)	J. Dreith	Added Training for Laboratory Personnel.
2.8.1.c (New Condition	J. Dreith	Added Waste Handlers and Maintenance Personnel
2.8.2	J. Merkle	Remove capitalization from the word "Part." Minor typographical correction (added space before citation.)
2.9.1	J. Dreith	Changed the word "handle" to the word "manage." "Handle" infers direct manipulation of the waste whereas "manage" can include handling the waste directly, as well as any management functions such as paperwork, etc.
2.10.2	J. Merkle	Added title of Permit Attachment D.
2.10.3	J. Merkle	Added title of Permit Attachment B.
2.10.4	J. Merkle	Added title of Permit Attachment L.
2.10.5	J. Merkle	Inserted hyphen in "Off Site" (title of Section 6.3.4).
2.10.6	J. Merkle	Corrected reference to Appendix B2 to read "Attachment B2." Also inserted time reference of "30 days."
2.10.7	J. Merkle	Corrected sentence to read "30 days prior to initiation of operations."
2.11.1	J. Dreith	Added the words "the Contingency Plan" between "implement" and "Permit." This will make the wording more consistent with previous references in the draft Permit.
2.11.2	J. Dreith	Added the requirement that Permittee include Permit Attachment A, "General Facility Description and Information," as part of the submittal to all federal, state, and local entities.
2.11.4	J. Merkle	Corrected reference to "Permit Attachment B" to read "Permit Attachment C." Deleted end parenthesis after reference to "40 CFR 264.56."

Permit Condition – Revised/New or Revision to Attachment	Author	Description
2.11.5.a	J. Merkle	Edit the phrase "at the time of Facility certification" to read "15 days prior to initiation of operations." Correct reference to "Appendix C1" to read "Attachment C1."
2.11.5.d	J. Dreith	Note: NMED may want to check with Legal Department regarding the fact that this Permit Condition addresses non-Permit satellite and 90-day generator accumulation areas. NMED may not have the authorization to address these units in the draft Permit.
2.11.5.e (New Condition)	J. Dreith	Added a Permit Condition that requires that the Permittee address decontamination procedures during an emergency, and after the emergency.
2.11.5.f (New Condition)	J. Dreith	Added a Permit Condition that requires that the stabilization building have a dedicated emergency electrical generator capable of supplying sufficient electrical power to the exhaust ventilation system. Build up of dust particulates, fumes or toxic gases could quickly cause an explosive situation. The condition also requires that the building be evacuated and that waste receipts at the building stop during a power outage.
2.11.5.g (New Condition)	J. Dreith	Added a Permit Condition that requires the Permittee to supply the names and qualifications of the on-site emergency response team, mentioned in the Procedures to Prevent Hazards, Section 5.4.6 (Permit Attachment B).
2.12.1.a	J. Dreith	Corrected reference to Permit Conditions. Should be 2.12.1.g in paragraph 1, and 2.12.1.l rather than 2.12.1.j in paragraph 2.
2.12.1.d	J. Merkle	Correct reference "40 CFR 264.72(b)(5)" to "40 CFR 264.71(b)(5)."
2.12.1.e	J. Merkle	Capitalization correction in title. Correct citations "20.4.1.500 NMAC" and "40 CFR 268.4(a)."

Permit Condition – Revised/New or Revision to Attachment	Author	Description
2.12.1.f	J. Dreith	Incorrect reference to a Permit Condition which does not exist. Change reference to 2.12.2.d. Also made minor capitalization change.
2.12.1.g	J. Dreith, J. Merkle	Incorrect reference to a Permit Condition which does not exist. Change reference to 2.12.2.d. Also made minor capitalization and text changes. Changed incorrect Federal citation.
2.12.1.h	J. Dreith, J. Merkle	The Permit Condition references Permit Attachment F, Section 4.10, Waste Tracking. The "new" Triassic Park application does not have a Section 4.10; waste tracking is now addressed in Section 4.8. This reference has been changed. Added another Federal citation.
2.12.1.j.i	J. Dreith	Corrected two typographical errors in paragraph 2.
2.12.1.i (second one), and 2.12.1.j	J. Dreith	There are two Permit Conditions labeled 2.12.1.i and two Permit Conditions labeled 2.12.1.j. The second Permit Conditions have been renumbered to 2.12.1.k and 2.12.1.l, respectively. All subsequent conditions referenced 2.12.1.i and 2.12.1.j have been checked.
2.12.1.k	J. Dreith	Changed reference "Permit Part 10" to "Permit Part 9."
2.12.2	J. Merkle	Corrected title of Table 2-3.
2.12.2.a	J. Dreith	Corrected spelling error from "minimuzation" to "minimization." Added another Federal citation.
2.12.2.b	J. Dreith	Minor capitalization changes.
2.12.2.d	J. Dreith	Added Subpart BB to the title of this Permit Condition.
2.13	J. Dreith, J. Merkle	Italicized title of Section 9.0. Minor capitalization changes.
2.14.1.a	J. Merkle	Removed end parenthesis from Federal citation.
2.14.1.b	J. Merkle	Corrected reference to Permit Attachment – should be "Attachment F2." Added title of Section 4.3.
2.14.1.c	J. Merkle	Removed end parentheses from Federal citations.
2.14.1.d	J. Merkle	Minor punctuation correction and text addition.
2.14.2.a	J. Merkle	Inserted title of Permit Attachment L.

Permit Condition – Revised/New or Revision to Attachment	Author	Description
2.14.2.b.i	J. Merkle	Corrected "dioxin" to read "dioxins."
2.14.2.b.i (second one)	J. Dreith	Made this Permit Condition 2.14.2.b.ii.
2.14.2.c	J. Dreith	Changed reference to Attachment F to Attachment F1
2.16	J. Dreith	Minor capitalization changes and corrected spelling error (collection basin).
2.17	J. Merkle	Italicized title of Permit Attachment O.
2.17.1 through 2.17.7		Deleted entire section.
2.18.4.b.i and 2.18.4.b.ii (Note: Closure and Post-Closure review is being performed by another individual.) [changed to Part 8]	J. Dreith	Capitalized titles.
2.18.1 through 2.18.5		Deleted entire section.
2.19 through 2.19.4		Deleted entire section.
2.20		Deleted entire section.
2.21 through 2.21.2.b		Deleted entire section.
2.22 through 2.22.2		Deleted entire section.
2.23		Renumbered section to "2.19" and revised text of entire section.
Table 2-1	J. Merkle	Corrected P Code for D004-D018. Should be P033-P034. Corrected footnote 5 from "P Code" to "U Code."
Table 2-2, Condition 2.11.7	J. Dreith	Corrected Permit Condition citation to 2.11.6.
Table 2-2, Condition 2.11.1.c	J. Dreith	Corrected title and spelling error.
Table 2-2, 2.12.1.f	J. Dreith	Corrected title and Permit Condition citation.
Table 2-2, 2.12.1.g	J. Dreith	Corrected title and Permit Condition citation.
Table 2-2, 2.12.1.h	J. Dreith	Corrected title and Permit Condition citation.
Table 2-2, 2.12.1.i	J. Dreith	Corrected title and Permit Condition citation.
Table 2-2, 2.12.1.j	J. Dreith	Corrected title and Permit Condition citation.
Table 2-2, 2.12.1.k	J. Dreith	Corrected title and Permit Condition citation.
Table 2-2, 2.12.1.l	J. Dreith	Corrected title and Permit Condition citation.

Permit Condition – Revised/New or Revision to Attachment	Author	Description
Table 2-2, 2.15.2 and 2.15.3	J. Dreith	There are no Permit Conditions 2.15.2 and 2.15.3. Corrected to Recordkeeping – 40 CFR 264, Subpart BB (Condition 2.12.1.f) and Recordkeeping – 40 CFR 264, Subpart BB (Condition 2.12.1.g).
Table 2-2, 3.6.1	J. Dreith	Changed Condition to 3.7.2.
Table 2-2, 3.6.2	J. Dreith	Changed Condition to 3.7.3.
Table 2-2, 4.6.5	J. Dreith	Added to Table 2-2
Table 2-2, 4.6.6	J. Dreith	Added to Table 2-2
Table 2-2, 5.7.1.a	J. Dreith	Inspection Logs
Table 2-2, 5.7.1.b	J. Dreith	LDRS and VZMS Data
Table 2-2, 5.7.1.c	J. Dreith	40 CFR 264, Subpart BB Records
Table 2-2, 5.7.1.d	J. Dreith	40 CFR 264, Subpart CC Records
Table 2-2, 6.7.1 through 6.7.1.c	J. Dreith	Added these recordkeeping requirements to Table 2-2
Table 2-2, 7.4.10	J. Dreith	Added Sampling Record to Table 2-2
Table 2-2, 7.7.1	J. Dreith	Recordkeeping – Operating Records
Table 2-2, 8.1.7.a	J. Dreith	Recordkeeping – Sampling Records
Table 2-3, 1.5.6, 1.5.8.a through 1.5.8.g	J. Dreith	Corrected numbering. (1.5.2 was omitted in original document.) Numbers 1.5.7, 1.5.9.a through 1.5.9.g should be 1.5.6 and 1.5.8.a through 1.5.8.g, respectively.
Table 2-3, 2.4.4	J. Dreith	There is no Permit Condition 2.4.4. Is 2.12.2.d the correct Condition?
Table 2-3, 2.11.6	J. Dreith	The table should reference 2.11.5.a.
Table 2-3, 2.11.7	J. Dreith	The table should reference 2.11.6.
Table 2-3, 2.15.2.c and 2.15.3.c	J. Dreith	There are no Permit Conditions 2.15.2.c and 2.15.3.c. Changed to 2.12.2.d.
Table 2-3, 3.10.4	J. Dreith	The table should reference 3.7.4.
Table 2-3, 2.17.3 through 2.22.1	J. Dreith	Deleted Permit Conditions
Table 2-3, 3.7.4	J. Dreith	Changed Condition to 3.7.4
Table 2-3, 4.2.6	J. Dreith	Added to Table 2-3
Table 2-3, 4.2.7	J. Dreith	Added to Table 2-3

Permit Condition – Revised/New or Revision to Attachment	Author	Description
Table 2-3, 4.4.3	J. Dreith	Added to Table 2-3
Table 2-3, 4.6.3	J. Dreith	Added to Table 2-3
Table 2-3, 4.6.3.a	J. Dreith	Added to Table 2-3
Table 2-3, 4.6.3.b	J. Dreith	Added to Table 2-3
Table 2-3, 4.6.4	J. Dreith	Added to Table 2-3
Table 2-3, 4.6.7	J. Dreith	Added to Table 2-3
Table 2-3, 5.7.2.a.i	J. Dreith	Added Permit Condition
Table 2-3, 5.7.2.a.ii	J. Dreith	Added Permit Condition
Table 2-3, 5.7.2.b.i	J. Dreith	Added Permit Condition
Table 2-3, 5.7.2.b.ii	J. Dreith	Added Permit Condition
Table 2-3, 5.7.2.c	J. Dreith	Added Permit Condition
Table 2-3, 5.7.3.a	J. Dreith	Added Permit Condition
Table 2-3, 5.7.3.b	J. Dreith	Added Permit Condition
Table 2-3, 5.7.3.c	J. Dreith	Added Permit Condition
Table 2-3, 5.10.6	J. Dreith	Added Permit Condition
Table 2-3, 5.10.7	J. Dreith	Added Permit Condition
Table 2-3, 7.3.1.b	J. Dreith	Added Permit Condition
Table 2-3, 7.5.3	J. Dreith	Added Permit Condition
Table 2-3, 7.5.7	J. Dreith	Added Permit Condition
Table 2-3, 7.7.2.a	J. Dreith	Added Permit Condition
Table 2-3, 7.7.2.a	J. Dreith	Added Permit Condition
Table 2-3, 8.1.3.a	J. Dreith	Added Permit Condition
Table 2-3, 8.1.5	J. Dreith	Added Permit Condition
Table 2-3, 8.1.6	J. Dreith	Added Permit Condition
Table 2-3, 8.1.7.b	J. Dreith	Added Permit Condition
Table 2-3, 8.1.7.c	J. Dreith	Added Permit Condition
Table 2-3, 8.2.8	J. Dreith	Added Permit Condition
Table 2-3, 8.2.9	J. Dreith	Added Permit Condition
Table 2-3, 8.3.1	J. Dreith	Added Permit Condition
Table 2-3, 8.3.1.a	J. Dreith	Added Permit Condition

Permit Condition – Revised/New or Revision to Attachment	Author	Description
Table 2-3, 8.3.3.a.ii	J. Dreith	Added Permit Condition
Table 2-3, 8.3.3.b.ii	J. Dreith	Added Permit Condition
Table 2-3, 8.3.4.a	J. Dreith	Added Permit Condition

REVISIONS – Part 3

Permit Condition – Revised/New or Revision to Attachment	Author	Description
General Comment	M. Nur	1.Where the tracing indicates only as "deleted," between paragraphs, I only deleted unnecessary hard returns. I did this only in the Highlights section. I did not delete unnecessary carriage returns elsewhere because it could get confusing. 2. Anything in between asterisks **** and in CAPS are notes for the QC person and should be removed with the "Tracing" off.
Permit Part 3 - Highlights	M. Nur	Added a section No. i.e., 3.0 Highlights
3.0 (pertaining to the Drum Handling Facility)	M. Nur	Change of text (words and name consistency). For example, for the Drum Handling Facility is inconsistently referred to as "Drum Handling Unit", "Drum Handling Building" "Drum Handling Area", "Container Storage Area" and so forth. For the sake of consistency I have changes all name reference to "Drum Handling Facility". However, if name reference points to a section in a permit attachment (which may also use an inconsistent name) no change was made to the referenced name.
3.0 (pertaining to the Drum Handling Facility)	M. Nur	Added text describing the type of containers, methods of storage, storage capacity and secondary containment capacity (per permit model)
3.0 (pertaining to the Drum Handling Facility)	M. Nur	Added a reference to Permit Attachment A for description waste handling and management at the area.
3.0 (pertaining to the Truck Roll-off Area)	M. Nur	Added additional text to describe the unit (e.g., berm, culverts, berm height, etc.)
3.0 (pertaining to the Truck Roll-off Area)	M. Nur	Added text to describe storage and containment capacity.
3.0 (pertaining to the Truck Roll-off Area)	M. Nur	Added a statement (stronger than what was in the draft) that "under no circumstances should wastes containing liquids be

Permit Condition – Revised/New or Revision to Attachment	Author	Description
		stored in the area".
3.0 (pertaining to Container Management)	M. Nur	Added specific 40 CFR Section reference. Also, made it clear (by adding phrases) that "waste permitted for storage" in the area already meets LDR.
3.1.1	M. Nur	Single word changes and name consistency for the Drum Handling Facility
3.1.2	M. Nur	Changed name from "Roll-Off Container Storage Unit" to "Roll-Off Container Storage Area."
3.1.3	M. Nur	Changed name from "Container Storage Unit" to "Drum Handling Facility."
3.1.4	M. Nur	Changed name from "Container Storage Area" to "Drum Handling Facility."
3.2.2	M. Nur	Name change for consistency
3.2.3	M. Nur	I suggested this section be deleted.
3.3	M. Nur	Word substitution: "in" for "at"
3.3.1	M. Nur	Modified property of "Specifications for Packaging" i.e., italicized, and added "s" at the end of "Packaging" to match the 49 CFR 178 title.
3.3.2	M. Nur	Word substitution: "in" for "at"
3.3.3	M. Nur	Rearranged the paragraph, i.e., Regulation citations first, then the specific issue emphasized.
3.3.4	M. Nur	Word substitution: "in" for "at"
3.3.5	M. Nur	Word substitution: "in" for "at"
3.3.6	M. Nur	Name change for consistency; Word substitution: "in" for "at" and also matched the referenced section title with the actual title.
3.3.7	M. Nur	Added the minimum aisle space requirement for the drums; name change for consistency; added a specification for when containers are stored against a wall or barrier; Word substitution: "in" for "at".
3.3.8	M. Nur	Word substitution: "in" for "at"

Permit Condition – Revised/New or Revision to Attachment	Author	Description
3.3.10	M. Nur	Word substitution: "in" for "at"; "storage" for "storing" to match the referenced section title.
3.3.11	M. Nur	Name change for consistency; word substitution: "in" for "at"
3.4.1	M. Nur	Added applicable specific 40 CFR section
3.4.1	S. Druschel	Revised Subpart CC requirements for consideration of waste for which testing has either not been done or not completed.
3.5.1	M. Nur	Reference to Section 2.2.2.2 deleted, not applicable
3.6.1	M. Nur	Spell-check: "procedures" replaced by "Procedures"
3.6.2.a	S. Druschel	Revised for Subpart CC Level 1 inspection requirements.
3.6.2b	M. Nur	Deleted a space
3.6.2.b	S. Druschel	Revised for Subpart CC Level 2 inspection requirements.
3.7.1	M. Nur	Word substitution: "in" for "at"
3.7.2	M. Nur	Word substitution: "in" for "at"; corrected permit section reference from 3.7 to 3.8
3.7.3	M. Nur	Deleted a "period"; Changed reference from Permit Condition 3.10.2 to 3.11.3
3.7.4	S. Druschel	Revised for reporting of noncompliance with Subpart CC requirements.
3.8.1	M. Nur	Word substitution: "in" for "at'
3.8.2	M. Nur	Changed name for consistency; Deleted the term "roll-off" to make the condition applicable to all containers; Word substitution: "in" for "at"
3.9.1	M. Nur	Word substitution: "in" for "at"
3.9.2	M. Nur	Word substitution: "in" for "at"
3.9.3	M Nur	Word substitution: "in" for "at"
3.10	M. Nur	Changed name from "Unit" to "Facility" for consistency
3.11	M. Nur	Corrected the section number to 3.12
3.11.1	M. Nur	Corrected the section number to 3.12.1; word substitutions: "in" for "at" and "Condition" for "Part"
3.11.1	S. Druschel	Revised exemption requirements for Subpart BB.

Permit Condition – Revised/New or Revision to Attachment	Author	Description
3.11.2	M. Nur	Corrected the section number to 3.11.3; inserted missing section in the reference.
3.11.2.a	S. Druschel	Added provisions for unknown or undocumented average volatile organic concentrations in waste.
3.11.2.b	S. Druschel	Added organic waste specifications to agree with Subpart CC.
3.11.3	M. Nur	Corrected the section number to 3.11.4; inserted missing section in the reference.
3.11.3	S. Druschel	Added provisions for unknown or undocumented average volatile organic concentrations in waste.
3.11.4	S. Druschel	Added provisions for unknown or undocumented average volatile organic concentrations in waste.

REVISIONS – Part 4

Permit Condition – Revised/New or Revision to Attachment	Author	Description
Highlights	S. Druschel	Added/revised reference.
4.1.1	S. Druschel	Added/revised reference.
4.1.2	S. Druschel	Added/revised reference. Also revised conditional.
4.1.4.a	J. Dreith	Added heading title
4.1.4.a	S. Druschel	Added/revised reference. Also revised conditional.
4.2.1	S. Druschel	Added/revised reference.
4.2.2	S. Druschel	Added/revised reference.
4.2.3	S. Druschel	Added/revised reference.
4.2.4	S. Druschel	Added/revised reference.
4.2.5	S. Druschel	Added/revised reference.
4.2.7	J. Dreith	Added Table 1-1 to reference of Permit Condition 1.10
4.4.1.b	S. Druschel	Added/revised reference.
4.4.1.c	S. Druschel	Added/revised reference.
4.4.2.c	S. Druschel	Revised secondary containment requirements.
4.5.1	S. Druschel	Added/revised reference.
4.6.5	S. Druschel	Added requirements for Subpart BB exemption recordkeeping.
4.6.6	S. Druschel	Added requirements for Subpart CC exemption recordkeeping.
4.6.7	S. Druschel	Added requirements for Subpart CC noncompliance reporting.
4.7.1	S. Druschel	Added/revised reference.
4.7.2	S. Druschel	Added/revised reference.
4.8.1	J. Dreith	Added reference to Permit Attachment F1
4.8.1	S. Druschel	Added/revised reference.

REVISIONS – Part 5

Permit Condition – Revised/New or Revision to Attachment	Author	Description
HIGHLIGHTS	M. Smith	Text changes
5.1.1	M. Smith	Changed text
5.1.1	M. Smith	Added reference
5.1.2.a	M. Smith	Deleted unnecessary blank line
5.1.2.a	M. Smith	Deleted title of referenced section
5.1.2.b	M. Smith	Deleted unnecessary blank line
5.1.2.b	M. Smith	Text change
5.1.2.c	M. Smith	Text change
5.1.2.c	M. Smith	Added blank lines
5.2.1.a	M. Smith	Changed punctuation in first paragraph
5.2.1.a	M. Smith	Added title to referenced section
5.2.1.a	M. Smith	Text changes
5.2.1.a	M. Smith	Deleted title of referenced section
5.2.1.a	M. Smith	Capitalized first letter of bulleted points
5.2.1.b	M. Smith	Changed permit condition title
5.2.1.b	M. Smith	Punctuation in first paragraph
5.2.1.b	M. Smith	Punctuation in second paragraph
5.2.1.c	M. Smith	Punctuation
5.2.1.c	M. Smith	Added title to referenced section
5.2.1.c	M. Smith	Text change
5.2.1.c	M. Smith	Added reference
5.2.1.c	M. Smith	Added permit condition 5.2.1.c.i to address separator dike
5.2.1.c	M. Smith	Added permit condition 5.2.1.c.ii to address perimeter dikes. Requested design and construction information through Permit Condition 1.10
5.2.1.c	M. Smith	Remove bold from text
5.2.1.c.i	M. Smith	Remove errant spaces and period
5.2.1.c.ii	M. Smith	Bold title of permit condition

Permit Condition – Revised/New or Revision to Attachment	Author	Description
5.2.1.c.ii	M. Smith	Text change
5.2.1.d	M. Smith	Punctuation
5.2.1.d	M. Smith	Text change
5.2.1.e	M. Smith	Punctuation
5.2.1.e	M. Smith	Deleted title of referenced section
5.2.1.f	M. Smith	Corrected reference
5.2.1.f	M. Smith	Added reference
5.2.1.f	M. Smith	Deleted titles of referenced sections
5.2.1.g	M. Smith	Punctuation
5.2.1g	M. Smith	Bold title of permit condition
5.3	M. Smith	Text change
5.3	M. Smith	Punctuation
5.3.2	M. Smith	Changed permit condition title
5.3.2	M. Smith	Text change
5.3.2	M. Smith	Requested revision of Permit Attachment N, Section 3.5.5, item I through Permit Condition 1.10
5.3.2	M. Smith	Added references
5.3.2	M. Smith	Deleted unnecessary blank line
5.3.3	M. Smith	Punctuation
5.3.5	M. Smith	Text change
5.4.1	M. Smith	Corrected title of referenced section
5.4.1	M. Smith	Corrected reference
5.4.1	M. Smith	Capitalized title
5.4.2	M. Smith	Text changes
5.4.3	M. Smith	Capitalized title
5.4.3	M. Smith	Corrected reference, first paragraph
5.4.3	M. Smith	Punctuation, second paragraph
5.4.3	M. Smith	Text changes
5.4.4.a	M. Smith	Bold title of permit condition
5.4.4.a	M. Smith	Corrected reference, first paragraph

Permit Condition – Revised/New or Revision to Attachment	Author	Description
5.4.4.a	M. Smith	Corrected reference, second paragraph
5.4.4.a	M. Smith	Punctuation, second paragraph
5.4.4.a	M. Smith	Text changes
5.4.4.b	M. Smith	Text change
5.4.4.b	M. Smith	Corrected references
5.4.4.c	M. Smith	Changed reference to 40 CFR 265 to 40 CFR 264
5.4.4.c	M. Smith	Deleted repeated section title
5.4.4.c	M. Smith	Removed errant spaces
5.4.4.c	M. Smith	Added additional reference
5.4.4.d	M. Smith	Text change
5.4.4.d	M. Smith	Corrected reference
5.4.5.a	M. Smith	Text changes
5.4.5.a	M. Smith	Corrected reference
5.4.5.a	M. Smith	Capitalized title
5.4.5.b	M. Smith	Punctuation
5.4.5.b	M. Smith	Text changes
5.4.5.b	M. Smith	Deleted title of referenced section
5.5.1	M. Smith	Text changes
5.5.1	M. Smith	Deleted titles of referenced attachments and sections
5.5.2	M. Smith	Text change
5.5.2	M. Smith	Corrected references
5.5.2	M. Smith	Capitalized title
5.5.2	M. Smith	Deleted title of referenced section
5.5.3	M. Smith	Corrected references
5.5.3	M. Smith	Deleted unnecessary blank lines
5.5.3	M. Smith	Text changes
5.5.4	M. Smith	Corrected reference
5.5.4	M. Smith	Added title of referenced section
5.5.5	M. Smith	Corrected reference
5.5.5	M. Smith	Punctuation

Permit Condition – Revised/New or Revision to Attachment	Author	Description
5.5.5.a	M. Smith	Punctuation
5.5.5.b	M. Smith	Text changes
5.5.5.b	M. Smith	Corrected references
5.5.6	M. Smith	Deleted unnecessary blank lines
5.5.6	M. Smith	Text change
5.5.6	M. Smith	Deleted title of referenced attachment
5.5.7	M. Smith	Corrected references
5.5.8	M. Smith	Corrected references
5.5.8	M. Smith	Punctuation
5.5.8	M. Smith	Text change
5.6.1.a	M. Smith	Punctuation
5.6.1.b	M. Smith	Capitalize title of permit condition
5.6.1.b	M. Smith	Punctuation
5.6.1.c	M. Smith	Capitalize title of permit condition
5.6.1.c	M. Smith	Corrected reference
5.6.1.c	M. Smith	Capitalize first letter in bulleted points
5.6.1.d	M. Smith	Text change
5.6.1.d	M. Smith	Punctuation
5.6.1.d	M. Smith	Deleted title of referenced attachment
5.6.1.d	M. Smith	Added title of referenced section
5.6.2	M. Smith	Deleted subheading 5.6.2.a and moved discussion under 5.6.2
5.6.2	M. Smith	Corrected reference
5.6.2	M. Smith	Corrected title of referenced section
5.6.2	M. Smith	Text changes
5.6.2	M. Smith	Added reference
5.6.2	M. Smith	Deleted unnecessary blank lines
5.6.2	M. Smith	Punctuation
5.6.2	M. Smith	Deleted titles of referenced sections
5.7.1.a	M. Smith	Text changes

Permit Condition – Revised/New or Revision to Attachment	Author	Description
5.7.1.a	M. Smith	Corrected reference
5.7.1.a	M. Smith	Punctuation
5.7.1.b	M. Smith	Text change
5.7.1.b	M. Smith	Punctuation
5.7.1.c	M. Smith	Punctuation
5.7.2.a	M. Smith	Deleted reference
5.7.2.a.i	M. Smith	Added reference
5.7.2.a.i	M. Smith	Capitalized permit condition heading
5.7.2.a.i	M. Smith	Deleted titles of referenced attachment and section
5.7.2.a.ii	M. Smith	Capitalized permit condition heading
5.7.2.a.ii	M. Smith	Text change
5.7.2.a.ii	M. Smith	Punctuation
5.7.2.b	M. Smith	Deleted unnecessary blank lines
5.7.2.b.ii	M. Smith	Deleted reference
5.7.2.b.iii	M. Smith	Text change
5.7.2.c	M. Smith	Text changes
5.7.2.c	M. Smith	Punctuation
5.7.3.a	M. Smith	Text change
5.7.3.a	M. Smith	Deleted errant spaces
5.7.3.b	M. Smith	Text change
5.8	M. Smith	Text change
5.8	M. Smith	Punctuation
5.9	M. Smith	Punctuation
5.10.1	M. Smith	Deleted unnecessary blank lines
5.10.1	M. Smith	Text changes
5.10.2	M. Smith	Punctuation
5.10.3	M. Smith	Punctuation
5.10.3	M. Smith	Text change
5.10.4	M. Smith	Text change
5.10.5	M. Smith	Punctuation

Permit Condition – Revised/New or Revision to Attachment	Author	Description
5.10.6	M. Smith	Deleted titles of referenced attachment appendices
5.10.6	M. Smith	Punctuation
5.10.6	M. Smith	Text change
5.10.7	M. Smith	Punctuation
5.10.7	M. Smith	Added reference
Table 5-1	M. Smith	Spelled out feet and gallons in column headings
Table 5-1	M. Smith	Changed Cell IA and Cell IB to Pond IA and Pond IB

REVISIONS – Part 6

Permit Condition – Revised/New or Revision to Attachment	Author	Description
Highlights	G. Koenig	revised text, revised regulatory/permit citation
6.1.1.b	G. Koenig	added text
6.2.1	G. Koenig	revised regulatory/permit citation
6.2.1.c	J. Dreith	revised text
6.2.1.d	G. Koenig	revised text
6.2.1.f	J. Dreith	revised text
6.2.1.g.i	G. Koenig	revised regulatory/permit citation
6.2.1.g.ii	G. Koenig	revised text, revised regulatory/permit citation
6.2.1.g.iii	J. Dreith	revised text
6.2.1.g.v	G. Koenig	revised header numbering, revised text, revised regulatory/permit citation
6.2.1.h	G. Koenig	revised header numbering, revised regulatory/permit citation
6.2.2	G. Koenig	revised regulatory/permit citation
6.4.1	G. Koenig	revised regulatory/permit citation
6.4.3	G. Koenig	revised regulatory/permit citation
6.4.4	G. Koenig	revised regulatory/permit citation
6.5.2.a	G. Koenig	revised regulatory/permit citation
6.5.3	G. Koenig	revised text, revised regulatory/permit citation
6.5.4	G. Koenig	revised regulatory/permit citation
6.5.5	G. Koenig	revised regulatory/permit citation
6.6.1.a	G. Koenig	revised text, revised regulatory/permit citation
6.6.1.c	G. Koenig	revised header numbering
6.6.1.d	G. Koenig	revised header numbering, revised regulatory/permit citation
6.6.2	G. Koenig	revised regulatory/permit citation
6.7.1.a	G. Koenig	revised regulatory/permit citation
6.7.1.b	G. Koenig	revised regulatory/permit citation
6.7.1.c	G. Koenig	revised regulatory/permit citation
6.7.2.a	G. Koenig	revised regulatory/permit citation

Permit Condition – Revised/New or Revision to Attachment	Author	Description
6.7.2.b	G. Koenig	revised text, revised regulatory/permit citation
6.7.2.c	G. Koenig	revised regulatory/permit citation
6.8	G. Koenig	revised regulatory/permit citation
6.10.1.a	G. Koenig	revised text
6.10.1.b	G. Koenig	revised regulatory/permit citation
6.10.3	G. Koenig	added header numbering
6.10.4	G. Koenig	added header numbering
Table 6-1	G. Koenig	revised text

REVISIONS – Part 7

Permit Condition – Revised/New or Revision to Attachment	Author	Description
7- Introduction	C. Walker	Revised to clarify that VZMS does not include LCRS and LDRS and to specify the uppermost aquifer. Editorial revisions to clarify sentence intent also performed.
7-Regulatory Background	C. Walker	Editorial revision
7-Other Monitoring Requirements	C. Walker	Section is not really necessary and refers to waste analysis which is addressed elsewhere; retaining section, however, while redundant, would not be problematic.
7-Regulated Units	C. Walker	Clarified that VZMS does not include LCRS and LDRS
7.2.1	C. Walker	Revised to specify the monitoring well/sump numbers and to add a compliance schedule reference for VZMS installation.
7.2.1.b	C. Walker	Add requirement for alternative shallow well location identification/installation if wells cannot be installed in originally selected locations.
7.2.1.e	C. Walker	Modified to cross reference vadose zone well relocation—also, the 15 ft. criteria should not necessarily apply to new wells, so "new" was removed from the title
7.2.2.a, b, and c	C. Walker	Modified to emphasize VZMS construction requirements
7.2.2.c	J. Dreith	Added references to drawings
7.2.2.f	C. Walker	Modified to include a compliance schedule for compatibility analysis
7.2.2.g	C. Walker	Modified to clarify that only air drilling will be used (original wording implied other methods would be used)
7.2.2.h	C. Walker	Added well construction drawing. Note: this section would probably read better if broken into subheadings: well construction material information, Well dimensions, well construction activities.
7.3	C. Walker	Explanatory sentence added and title change to be consistent with text.

Permit Condition – Revised/New or Revision to Attachment	Author	Description
7.3.1	C. Walker	Removal of the phrase baseline to simplify leachate and non-leachate (combined to become indicator parameters) listings. Addition of explanatory text.
7.3.1.a	C. Walker	Added requirement of non-leachate acquisition prior to first waste. Note—it may not be possible to acquire a consolidation sample prior to first waste, so the non-leachate water sample may not include this fluid.
7.3.2.b	C. Walker	Clarification of language with respect to non-leachate indicator parameter list
7.3.3	C. Walker	Moved to be 7.3.1—more logical location for information discussed.
7.3.3 (new)	C. Walker	Added an explanation that the information from the leachate sampling would be combined to determine a list of parameters present in leachate, to indicate that this list is dynamic, but that the list cannot be reduced.
7.4.1.a, 7.4.1.b	C. Walker	Clarification.
7.4.2	C. Walker	Clarification and additional referencing to Attachment K.
7.4.4, 7.4.7	C. Walker	Addition of reference to Attachment K
7.5.1	C. Walker	Clarify VZMS analysis to be performed and indicator parameter comparisons
7.5.1.a	K. Higgins	Revised to clarify the release determination procedures and to specify the use of tolerance limits. Also references new Permit Attachment Q – Statistics, which is developed by TechLaw (Kevin Higgins)
7.5.1.a	C. Walker	Revised to clarify intent that VZMS be analyzed for Table 1 and detected leachate constituents
7.5.3, 7.5.7	C. Walker	Specify reporting, particularly when release occurs

Permit Condition – Revised/New or Revision to Attachment	Author	Description
7.7	C. Walker	Clarified what goes into operating record, quarterly report, and biennial report (note that the quarterly report and biennial report are part of the operating record). Note that this was simplified by referencing 7.4.10, which specifies inclusion of detailed information in a Monitoring Field Log (i.e. sampling information, etc).
8.3	K.. Higgins	Revised to specify the closure performance standard shall be based upon background soil sampling results obtained as part of the updated Closure Plan.
Attachment Q (new)	K. Higgins	New attachment, requested by Steve Pullen, which addresses the statistical requirements for the release determination under Permit Part 7.5.1.a.

REVISIONS – Part 10

Permit Condition – Revised/New or Revision to Attachment	Author	Description
Highlights	G. Koenig	revised text, revised regulatory/permit citation
10.2.1	G. Koenig	revised regulatory/permit citation
10.2.3	G. Koenig	revised regulatory/permit citation
10.3	G. Koenig	revised regulatory/permit citation
10.3.1	G. Koenig	revised regulatory/permit citation
10.3.2	G. Koenig	revised regulatory/permit citation
10.3.5	G. Koenig	revised regulatory/permit citation
10.3.6	G. Koenig	revised regulatory/permit citation
10.3.7	G. Koenig	revised regulatory/permit citation
10.3.8	G. Koenig	revised regulatory/permit citation
10.3.9	G. Koenig	revised regulatory/permit citation
10.4.	G. Koenig	added explanatory note
10.5.1	G. Koenig	added explanatory note, revised regulatory/permit citation
10.5.2	G. Koenig	revised regulatory/permit citation
10.5.3	G. Koenig	added explanatory note
10.6.1	G. Koenig	added explanatory note, revised regulatory/permit citation
10.6.2	G. Koenig	revised regulatory/permit citation
10.6.3.a	G. Koenig	revised regulatory/permit citation
10.6.3.b	G. Koenig	added explanatory note
10.6.4	G. Koenig	revised regulatory/permit citation
10.6.5	G. Koenig	added explanatory note
10.7.1	G. Koenig	revised regulatory/permit citation
10.7.2	G. Koenig	revised text, revised regulatory/permit citation
10.7.3	G. Koenig	revised regulatory/permit citation
10.7.5	G. Koenig	revised regulatory/permit citation
10.7.7	G. Koenig	revised regulatory/permit citation
10.7.8	G. Koenig	revised regulatory/permit citation
10.7.9	G. Koenig	revised regulatory/permit citation

Permit Condition – Revised/New or Revision to Attachment	Author	Description
10.7.10	G. Koenig	revised regulatory/permit citation
10.7.11	G. Koenig	revised regulatory/permit citation
10.7.12	G. Koenig	revised regulatory/permit citation
10.7.13	G. Koenig	revised regulatory/permit citation
10.7.14	G. Koenig	revised regulatory/permit citation
10.7.15	G. Koenig	added text, revised regulatory/permit citation
10.7.16	G. Koenig	revised regulatory/permit citation
10.8	G. Koenig	revised text, revised regulatory/permit citation
10.11	G. Koenig	revised regulatory/permit citation
10.11.1	G. Koenig	added explanatory note, revised regulatory/permit citation
10.11.2	G. Koenig	revised regulatory/permit citation
10.12	G. Koenig	added text, revised regulatory/permit citation

REVISIONS – Part 11

Permit Condition – Revised/New or Revision to Attachment	Author	Description
Highlights	G. Koenig	revised regulatory/permit citation
11.1.1	G. Koenig	revised text
11.2.1	G. Koenig	revised regulatory/permit citation
11.2.2	G. Koenig	revised regulatory/permit citation
11.2.3	G. Koenig	revised regulatory/permit citation
11.3	G. Koenig	added regulatory/permit citation, revised regulatory/permit citation
11.3.1	G. Koenig	revised regulatory/permit citation
11.4.1.a	G. Koenig	revised regulatory/permit citation
11.4.1.b	G. Koenig	added regulatory/permit citation, revised regulatory/permit citation
11.4.1.d	G. Koenig	revised regulatory/permit citation
11.4.2.a	G. Koenig	revised regulatory/permit citation
11.4.2.b	G. Koenig	revised regulatory/permit citation
11.4.2.c	G. Koenig	revised regulatory/permit citation
11.4.3.b	G. Koenig	revised regulatory/permit citation
11.5.1.a	G. Koenig	revised regulatory/permit citation
11.5.1.b	G. Koenig	revised regulatory/permit citation
11.5.1.c	G. Koenig	added explanatory note
11.5.2	G. Koenig	added explanatory note
11.5.3.a	G. Koenig	added explanatory note, revised regulatory/permit citation
11.5.3.b	G. Koenig	added explanatory note, revised regulatory/permit citation
11.5.3.c	G. Koenig	revised regulatory/permit citation
11.6.1.b	G. Koenig	revised regulatory/permit citation
11.6.1.c	G. Koenig	added explanatory note
11.6.3.a	G. Koenig	added explanatory note, revised regulatory/permit citation
11.6.3.b	G. Koenig	revised regulatory/permit citation
11.6.3.c	G. Koenig	revised regulatory/permit citation

Permit Condition – Revised/New or Revision to Attachment	Author	Description
11.7.2	G. Koenig	revised regulatory/permit citation
11.7.3	G. Koenig	added explanatory note
11.9.3	G. Koenig	revised regulatory/permit citation
11.9.4	G. Koenig	revised regulatory/permit citation
11.11	G. Koenig	added header numbering, added text
Table 11-1	G. Koenig	revised text
Table 11-2	G. Koenig	revised regulatory/permit citation
Table 1-1	G. Koenig	added text, added regulatory/permit citation
Table 2-2	G. Koenig	added text, added regulatory/permit citation
Table 2-3	G. Koenig	added text, added regulatory/permit citation

ATTACHMENT F1

4.0 WASTE ANALYSIS PLAN

The Triassic Park Hazardous Waste Disposal Facility (the facility) is a commercial facility that receives hazardous waste generated off-site for treatment, storage, and disposal. This waste analysis plan establishes ~~Facility~~Permittee requirements for accepting and characterizing hazardous waste generated both off-site and on-site. The waste analysis plan requirements are established in the New Mexico Hazardous Waste Management Regulations at 20 NMAC 4.1.500 incorporating 40 CFR 264.13, 20 NMAC 4.1.800 incorporating 40 CFR 268.7, and 20 NMAC 4.1.900 incorporating 40 CFR 270.14(b)(3). The most recent revision of this waste analysis plan will be maintained at the facility as part of the ~~Facility~~Permittee Operating Record. The ~~Facility~~Permittee will continually upgrade the waste analysis plan with regard to the Land Disposal Restrictions (LDR) regulations contained in 40 CFR 268.

Section 4.1 identifies wastes which will be accepted at the facility and wastes which are prohibited. Section 4.2 lists criteria for waste acceptance and management. Sections 4.3 and 4.4 contain pre-acceptance procedures for initial acceptance of hazardous waste received from off-site generators and management procedures for incoming shipments of waste. The various waste analysis protocols that will be required at the facility are contained in Section 4.5. Sampling and analytical methods and protocols for quality assurance/quality control (QA/QC) are discussed in Sections 4.6 and 4.7. Section 4.8 explains the ~~Facility~~Permittee's waste tracking system. Section 4.9 summarizes notification, certification, and recordkeeping requirements related to waste analysis.

4.1 PERMITTED AND PROHIBITED WASTE

Section 4.1.1 identifies hazardous waste permitted for acceptance at the facility. Hazardous waste prohibited at the facility is identified in Section 4.1.2.

4.1.1 Permitted Waste

The ~~Facility~~Permittee will treat, store, and/or dispose only those hazardous wastes listed in Part A of the facility permit application. Only hazardous waste which meets the Land Disposal Restrictions (LDR) treatment standards identified in 40 CFR 268, Subpart D, or can be treated at the facility to meet these standards, will be accepted. These treatment standards are

applicable to both primary contaminants and underlying constituents.

4.1.2 Prohibited Waste

The ~~facility~~Permittee will not accept the following wastes from off-site generators:

- **dioxin-contaminated wastes.** - Wastes listed in 40 CFR 268.31;

- **certain PCB-contaminated liquids.** - Ignitable PCB-contaminated liquids or liquids with PCB concentrations greater than or equal to 50 ppm;

- **certain PCB-contaminated soils.** - Soils with PCB concentrations greater than or equal to 500 ppm will not be accepted at the facility, ~~except~~except for those soils (or other wastes) which are defined as ~~for~~ bulk PCB-contaminated remediation waste. Before the ~~facility~~Permittee accepts other wastes containing PCB concentrations greater than 500 ppm, the ~~facility~~Permittee will obtain a permit from EPA for management of Toxic Substances Control Act **(TSCA)** wastes. A copy of this permit will be transmitted to the New Mexico Environment Department (NMED) before such waste is accepted

- **organic liquids/sludges.** - Liquids/sludges ~~with an organic concentration of 10 percent or greater by weight or liquids/sludges~~ that have not been treated~~(prior to receipt at the facility)~~ to applicable LDR treatment standards;

- **explosives.** - Any substance or article, including a device, which is designed to function by explosion (i.e., an extremely rapid release of gas and heat) or which, by chemical reaction within itself, is able to function in a similar manner even if not designed to function by explosion. This includes materials defined as explosives in 40 CFR 143;

- **radioactive/nuclear materials.** - Materials regulated by the NMED or the New Mexico Oil Conservation Division and defined in 20 NMAC 3.1 Subpart 14, or materials regulated under the Atomic Energy Act of 1954, as amended (including source, special nuclear materials and byproduct materials as defined in 10 CFR 20.1003);

- **medical waste.** - Waste including infectious/biologic/pathogenic solid waste generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals. This also includes infectious waste as defined in NMAC 9.1.105.L.;

- **municipal solid waste.** - Wastes including garbage, refuse, sludges, wastes, and other discarded materials as defined in 40 CFR 761.3 and residential and commercial solid wastes generated within a community as identified in 40 CFR 240.101 and 40 CFR 241.101;

- **construction and demolition debris.** - Waste identified in 40 CFR 243.101 and 40 CFR 246.101 as building materials, packaging, and rubble resulting from construction, remodeling, repair, and demolition operations on pavements, houses, commercial buildings and other structures;

- **certain hazardous debris.** - Hazardous debris which does not meet the LDR treatment standards;

- **special waste.** - Waste identified in NMAC 9.1.105.ZZZ. as nonhazardous solid wastes requiring unique handling, transportation, or disposal requirements other than that normally used for municipal solid waste to ensure protection of the environment and the public health, welfare, and safety (e.g., asbestos waste);

- **certain lab packs.** - Lab packs which contain wastes (identified in 40 CFR 268, Appendix IV) excluded from lab packs under the alternative treatment standards of 40 CFR 268.42(c);

- **compressed gases.** - Gases stored at pressures higher than atmospheric; and

- **unknown or unidentified waste.** - These wastes cannot be accepted at the Facility except by special provision and direction from the NMED Secretary (e.g., emergency clean-up operations) or until full characterization has been performed.

4.2. CRITERIA FOR WASTE MANAGEMENT AT THE FACILITY

Waste managed at the facility must meet the ~~[illegible]~~'s criteria for acceptance and management. Waste analysis (or, in some cases, acceptable process knowledge) will be used to ensure determination of:

- ~~[illegible]~~complete characterization of the waste;
- ~~[illegible]~~compliance with LDR treatment standards, including, where applicable, underlying constituents. If the waste stream does not meet the LDR treatment standards, the waste will be rejected if the ~~facility~~Permittee does not have the appropriate treatment capability to bring it into compliance;
- ~~[illegible]~~compliance with the ~~facility~~Permittee's regulatory and operational limits (e.g., the waste is not included in the permitted wastes listed in Part A of this application~~,~~ or the waste does not meet other operational boundaries established by this WAP). ~~or it exceeds the 40 CFR, Subparts BB allowable concentrations for air emissions, or exceeds the allowable concentration of PCBs, or contains biodegradable sorbents, or is incompatible with other wastes or containers).~~

4.3 PRE-ACCEPTANCE PROCEDURES FOR OFF-SITE WASTE

Before a waste stream is accepted, all off-site generators will be required to provide a complete waste characterization (Section 4.3.1). After evaluating the paperwork supplied by the generator (Section 4.3.2), the ~~facility~~Permittee will send a representative sample of the waste to an independent laboratory for analysis and will evaluate the analytical results (Section 4.3.3). Finally, the ~~facility~~Permittee will notify the generator that the ~~facility~~Permittee will accept the waste stream (Section 4.3.4).

4.3.1 ~~[illegible]~~Waste Characterization Information Provided by the Generator

The activities associated with pre-acceptance of off-site waste streams are shown in Figure 4-1.

The generator must provide the following waste characterization information for each waste stream:

- ~~[illegible]~~a completed Waste Profile Form signed by an authorized agent of the generator. An example of a Waste Profile Form is contained in Vol. II, Appendix H, of this

application. This form may be changed if the ~~facility~~ Permittee believes that more information is warranted or if there are changes in regulations governing the facility;

- other documentation that supports the information presented on the Waste Profile Form (e.g., Material Safety Data Sheets);
- waste analysis data used to characterize the waste and/or process knowledge documentation;
- a description of the process that generated the waste;
- a completed Land Disposal Restriction Notification;
- all other supporting data required by 40 CFR 268.7;
- all required certifications; and
- a representative sample of the waste, of adequate volume for analysis.

Insert Figure 4-1, Pre-Acceptance Procedure for First Time Waste

In certain cases, generators may meet waste analysis requirements by supplying "acceptable knowledge". Acceptable knowledge includes process knowledge and waste analysis. Process knowledge includes detailed information of a waste obtained from existing published or documented waste analysis data or studies on hazardous wastes generated by processes similar to that which generated the waste, or industry or trade association hazardous waste profile studies, or EPA documents. Examples of waste streams where process knowledge may be adequate for characterization are K-listed wastes (hazardous wastes from specific sources), which are identified by comparing the specific process that generated the waste to those processes listed in 40 CFR 261.32. The application of process knowledge is appropriate where the physical/chemical make-up of the waste is well known and consistent. Process knowledge is often used in conjunction with physical and analytical analysis.

If waste analysis is used to characterize the waste, the generator must, at a minimum, supply the following waste analysis data for each sample:

- identification of the sample medium (e.g., aqueous, sludge, soil);
- brief description of the sampling strategy, including
  - a description of the sampling technique (i.e., biased or random);
  - rationale for selection of the number and location of samples;
  - a description of the statistical approach, if any; and
  - the sample type (i.e., grab or composite);
- identification of the analytical methods that were used and the rationale for the selection of these parameters;
- final laboratory reports including case narratives, waste analyses, and quality assurance/quality control analyses; and
- identification of the laboratory which performed the waste analyses.

4.3.2 Paperwork Evaluation

The Permittee will evaluate all of the waste characterization paperwork to determine if it adequately

represents the physical and chemical characteristics of the waste stream and whether the waste stream is appropriate for management at the facility. As part of the pre-shipment process, the ~~Facility~~ Permittee will work with the off-site waste generator to ensure that all necessary waste analyses and waste characterization information are provided to meet the applicable requirements for acceptance.

If waste analysis was used to characterize the waste, the ~~Facility~~ Permittee will evaluate the data to determine that:

- appropriate extraction and preservation techniques were used;
- appropriate sampling strategies were used;
- appropriate sample types were collected (e.g., to demonstrate compliance with the LDR treatment standards, hazardous waste regulations require that grab samples be collected for nonwastewaters and composite samples be collected for wastewaters);
- appropriate parameters were selected for analysis;
- appropriate analytical methods were used;
- recommended holding times were met; ~~and~~
- detection limits were below applicable standards (e.g., the LDR standards); and
- the quality of the analytical data is adequate for making a waste determination based on an evaluation of the final laboratory reports.

If the data supplied are not adequate to provide a complete characterization of the waste stream, the ~~Facility~~ Permittee will either require additional information from the generator or will not agree to accept the waste.

All of the waste characterization information supplied by the generator will be maintained in the ~~Facility~~ Permittee's Operating Record. In addition, the ~~Facility~~ Permittee's evaluation of this information and the results of the independent analysis will be maintained in the Operating Record.

4.3.3 Representative Sample Analysis and Evaluation

After evaluation and approval of the waste characterization data paperwork (see Section 4.3.2), the representative sample

submitted by the generator will be analyzed by an ~~off-site~~ independent-qualified -laboratory other than the one used by the generator. Based upon the ~~Facility~~Permittee evaluation of the information supplied by the generator, the ~~Facility~~Permittee will inform the laboratory of the medium type (e.g., liquid, aqueous, solid) and appropriate parameters for analysis. The rationale for selection will be maintained in the ~~Facility~~Permittee Operating Record.

The ~~Facility~~Permittee will select parameters for analysis to ensure that the criteria for acceptance identified in Section 4.2 are met. The analysis will include testing for each hazardous waste contained in the waste stream, as identified by EPA waste code, and for each underlying hazardous constituent, as identified in 40 CFR 268.48, Table 4-1 (see Section 4.5.~~4~~2).

The generator's Waste Profile Form will be compared with the results of the independent analysis of the representative sample and with the facility's permit to ensure that the waste is acceptable for storage, treatment, and/or disposal at the facility. Should there be a discrepancy between the analytical results and the generator information, the ~~Facility~~Permittee will contact the generator to resolve the discrepancy. The generator will not be authorized to ship the waste until all discrepancies are resolved. If the discrepancies cannot be resolved with the information provided by the generator, the ~~Facility~~Permittee will request a new Waste Profile Form and any additional information that may be required to characterize the waste adequately. In addition, the ~~Facility~~Permittee may require the generator to submit additional samples of the waste for analysis. If the generator cannot supply adequate information to provide a complete characterization of the waste stream the ~~Facility~~Permittee will not accept the waste.

4.3.3.1 ~~Major~~ Major Ddiscrepancies

Major discrepancies include the following:

- analytical results indicating that the generator applied an incomplete or wrong waste code to the waste stream;
- analytical results indicating that the generator submitted incomplete or wrong information on the LDR Notification Form;
- analytical results including constituents or underlying hazardous characteristics that are not explained by a description of the process; and

- other information indicating that the waste stream is not characterized properly.

In the event of a major discrepancy, the Permittee will reject the paperwork and require the generator to analyze the waste in accordance with a sampling plan that is consistent with the guidance in EPA document SW-846, *Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods*, Chapter 9. The Permittee will require the generator to resubmit the waste characterization information listed in Section 4.3.1 and one or more additional representative samples for analysis.

4.3.3.2 Minor discrepancies

Minor discrepancies include any other waste characterization discrepancy. In the event of a minor discrepancy, the Permittee will work with the generator to resolve the discrepancy. For example, uncertainties regarding sorbents will be handled as minor discrepancies. The Permittee will contact the generator if the Waste Profile Form does not indicate whether a sorbent was added to the waste, or it indicates that a sorbent was added but does not specify the name and type of sorbent and whether it is biodegradable.

If the generator cannot provide this documentation, the waste must be tested to determine if it contains a biodegradable sorbent. If the waste is determined to contain a biodegradable sorbent, it will be rejected.

4.3.3.3 Additional Waste Acceptance Conditions

In addition to complete characterization of the waste, the Permittee will also evaluate the waste to ensure that it can be managed at the facility. Waste analysis will be conducted where necessary to ensure:

- the waste is not prohibited (e.g., the waste is included in Part A of this application, is not listed in Section 4.1 as a prohibited waste, or does not exceed allowable PCB concentrations or include dioxins);

- the LDR treatment standards contained in 40 CFR 268, Subpart D, including the standards for underlying hazardous constituents, are met;

- the general requirements contained in 40 CFR 264.17 for ignitable, reactive, and/or incompatible waste are met;

- the special requirements for bulk and containerized liquids contained in 40 CFR 264.314 are met; and

~~the waste does not exceed Subpart BB air emission standards for equipment leaks ; and~~

- the waste does not contain biodegradable sorbents, as required in 40 CFR 264.314(e).

All major and minor discrepancies, discrepancy resolutions, and compliance with the additional waste acceptance conditions listed above will be documented in writing and maintained in the ~~facility~~Permittee Operating Record.

4.3.4 Notification and Approval of Waste Shipment

After the ~~facility~~Permittee determines that the waste stream meets the pre-acceptance requirements, the ~~facility~~Permittee will send a written notification to the generator. This notification will include:

- a statement that the waste is acceptable for shipment;

- a unique identifier number for the waste stream, assigned by the ~~facility~~Permittee (see Section 4.10);

- instructions to put the unique identifier number on all shipment paperwork and all future waste characterization data that are submitted for the waste stream;

- a requirement to notify the ~~facility~~Permittee at least 24 hours before shipping, so that the ~~facility~~Permittee can ensure that there are sufficient resources and capacity to manage the shipment when it arrives;

- a statement that the ~~facility~~Permittee reserves the right to delay shipments beyond the 24-hour time-frame;

- instructions to ensure safe management of the waste (e.g., packaging or labeling requirements not otherwise required by regulations);

- if the generator has treated the waste prior to shipment to meet applicable LDR treatment standards, a requirement that the generator develop and follow a

written waste analysis plan which describes the procedures used; and

- a requirement that the generator retain on-site a copy of all notices, certifications, demonstrations, waste analysis data, and other documentation produced pursuant to characterization of the waste stream for five years from the date that the waste was last sent to the ~~Facility~~Permittee.

Once the ~~Facility~~Permittee has completed pre-acceptance requirements and has determined that a waste stream is acceptable for shipment, the on-site laboratory will be notified in writing. The notification will include the waste type, waste stream identifier, physical form, packaging, and how the waste is to be managed. This information will be used by the laboratory as follows:

- the waste stream identifier will be used to track the samples in relation to the waste stream;

- the waste type and management methods (storage, solidification, evaporation, and/or disposal) will be used to help determine the analytical methods that will be employed for fingerprint analysis; and

- the physical form and packaging will determine the most applicable sampling methods.

Using this information, the on-site laboratory will designate a sampling and analytical protocol specific to each waste stream. The unique identifier number for the waste stream will be used to track all activities for the waste stream. Individual shipments from within the waste stream will receive an additional identifier to enable the ~~Facility~~Permittee to tie information back to the specific shipment as well as to the waste stream.

4.4 PROCEDURES FOR INCOMING WASTE ACCEPTANCE

The activities associated with incoming waste shipments (typically, in drums, roll-off boxes, vacuum trucks, and tanker trucks) are shown in Figure 4-2. These procedures will be used for both initial shipment of a waste stream as well as for waste streams that have previously been accepted by the ~~Facility~~Permittee from the same generator and process. The ~~Facility~~Permittee will review the waste shipment paperwork and resolve paperwork discrepancies (Section 4.4.1), and visually inspect the waste inside the containers and roll-off boxes (Section 4.4.2). Waste analyses for incoming shipments consist of fingerprint analysis and an annual analysis to update

characterization of the waste stream (Section 4.4.3). Based on the ~~facility~~Permittee's evaluation of the waste stream, a determination to accept or reject the waste will be made (Section 4.4.4).

4.4.1 Paperwork Review

Upon receipt of a waste shipment, the truck will be routed to a parking area outside the facility gate while documents are reviewed. The ~~facility~~Permittee will:

- review all paperwork for completeness to verify that all required documentation is present and signed as necessary;
- compare the information in the manifest, the Waste Profile Form, the LDR Notification Form, and pre-acceptance waste characterization information for consistency;
- compare the number of containers, the volume or weight of the waste, and the waste labels on each container with the manifest for consistency; and
- review all paperwork to verify that the unique identifier number for the waste stream is on all the waste shipment paperwork and all accompanying waste characterization data.

If the ~~facility~~Permittee determines that the paperwork is complete and consistent, the waste shipment will be routed to the truck sampling station, a staging area inside the facility gate.

If the ~~facility~~Permittee determines that the paperwork is incomplete or inconsistent, the waste shipment will be routed to a segregated, secure area inside the facility gate pending resolution of the discrepancies. An attempt will be made to resolve discrepancies with the waste generator or transporter within 24 hours. In those instances where a discrepancy with the manifest cannot be resolved within 15 days of receiving the waste, a letter will be submitted to NMED describing the discrepancy and the attempts made to reconcile it. A copy of the manifest or shipping paper at issue also will be provided to NMED, as specified in 40 CFR 264.72(b). If the ~~facility~~Permittee is unable to resolve the manifest discrepancies, the waste will not be accepted.

The ~~facility~~Permittee will resolve significant manifest discrepancies in accordance with 40 CFR 264.72. Manifest discrepancies are differences between the quantity or type of hazardous waste designated on the manifest and the quantity or

type of hazardous waste contained in the shipment received at the facility.

Significant discrepancies in quantity are:

Insert Figure 4-2, Incoming Waste Shipment Procedures

- **bulk waste.** - Variations greater than 10 percent in weight; and

- **batch waste.** - Any variation in piece count, such as a discrepancy of one drum in a truckload.

Significant discrepancies in type are obvious differences which can be discovered by inspection or waste analysis, such as waste solvent substituted for waste acid, or toxic constituents not reported on the manifest or shipping paper.

All discrepancy resolutions will be documented in writing and maintained in the ~~Facility~~ Permittee Operating Record.

4.4.2 Visual Inspection

After all paperwork discrepancies have been resolved, the ~~Facility~~ Permittee will physically open and inspect the waste inside ~~all~~ drums and roll-off boxes for color, similar physical appearance (e.g., single phase, bi-layer, multi-layer), and physical state (e.g., solid, semi-solid, or liquid). This information will be compared with the waste characterization information provided by the generator and the physical appearance of the representative sample. If the color and/or viscosity of bulk wastes (solids and sludges) appear inconsistent, the ~~Facility~~ Permittee may elect to perform additional chemical tests, i.e., composite samples would be taken from within the different areas of coloration or viscosity.

The ~~Facility~~ Permittee will inspect a minimum of 10 percent of all drums of each waste stream per shipment (but not less than one drum per waste stream), and each roll-off container or tanker truck.

The ~~Facility~~ Permittee will physically open all containers of hazardous debris and inspect the contents to ensure that the waste shipment matches the waste that is expected. Prior to acceptance of hazardous debris the ~~Facility~~ Permittee will require the generator to provide a certification that the waste has been treated in accordance with the requirements defined for the treatment of hazardous debris in 40 CFR 268. Hazardous debris is visually inspected because it is exempted from the representative sample waste analysis requirements discussed in Section 4.7.2. This visual inspection will ensure that the waste stream matches the description provided by the generator.

Certain loads may not be sampled, at the discretion of the ~~Facility~~ Permittee manager or laboratory supervisor, for environmental and safety reasons (e.g., severe weather which causes unsafe working conditions). In these cases, the generator or his agent will be required to provide a signed certification

that the load conforms to the Waste Profile Form. This variance from established procedure will be documented in the Permittee Operating Record.

If a discrepancy is found, the Permittee will contact the waste generator for resolution (see Section 4.4.1). The results of visual inspections and all discrepancy resolutions will be documented in writing and maintained in the Operation Record.

4.4.3 Waste Analysis for Incoming Shipments

Waste analysis for incoming shipments consists of fingerprint tests (Section 4.5.4) and an annual analysis to ensure correct characterization of each waste stream (Section 4.5.3).

4.4.3.1 Fingerprint Tests

Fingerprint analysis (see Section 4.5.4) will be conducted on each waste stream in each shipment prior to shipment acceptance. Fingerprint analysis will be conducted generally for parameters that will give information that can be used to help verify that a waste stream received from off-site matches the expected characteristics of the waste.

Because the Permittee already knows the detailed chemical and physical properties of a waste, the appropriate fingerprint or spot check parameters can be chosen easily, since the purpose of the fingerprint is only to verify that the waste received is the waste expected.

Appropriate fingerprint parameters will be selected based on the pre-acceptance waste characterization data, shipment paperwork, physical form of the waste, and the visual inspection of the contents of containers and bulk waste.

Fingerprint analysis will also include parameters as necessary to ensure that the waste is within the Permittee's regulatory and operational acceptance limits. To select additional sample parameters, the Permittee will consider:

- compliance with applicable regulatory and permit requirements. (This may require selection of parameters not reported by the generator);
- identification of incompatible and inappropriate wastes; and
- process and design considerations.

While the incoming shipment is staged at the sampling station, laboratory personnel, or other trained personnel, will review the laboratory requirements for the specific waste stream. After completion of this review, sampling personnel will obtain the necessary samples in the manner prescribed by laboratory requirements. Sampling will be conducted in accordance with approved site operating procedures. These procedures will detail the sampling requirements, sample labeling, chain-of-custody requirements, any necessary sample preservation requirements, and other sampling components (see Section 4.6).

As noted, fingerprint analysis helps the minimize the potential to receive waste that is unacceptable. Therefore, the level of analysis required for a waste shipment is a function of the 's knowledge about the waste generation process and the waste generator. Fingerprint analysis will be conducted for at least one qualitative and one quantitative parameter (see Section 4.5.5). The may elect to perform additional fingerprint tests to achieve a higher level of confidence that a full waste characterization is achieved. If discrepancies are noted between the received waste and the Waste Profile Form, the waste will be further analyzed using additional fingerprint parameters. Discrepancies that can result in the requiring additional analysis include non-conformance with the results of required testing or a change in color, texture, liquid content, or other characteristics that can be observed upon receipt.

The Permittee will follow the parameter selection process described in Section 2.2 of the EPA guidance document, *Waste Analysis at Facilities That Generate, Treat, Store, and Dispose of Hazardous Wastes*, April 1994.

Each waste stream in each shipment will be sampled in accordance with the following sampling rate, at a minimum:

- **bulk waste.** - One sample will be collected from each shipment of bulk waste (one shipment of bulk waste is considered to be one truck load or one roll-off box). If, upon visual inspection, the color and viscosity of solids or sludges appear inconsistent, the Permittee may elect to obtain additional samples. These samples would be composites from within the different areas of color or viscosity; and

- **batch waste.** - One sample will be collected from each ten waste drums in each waste stream in each shipment. If there are less than ten waste drums in the waste stream, one drum will be sampled. One sample will be collected from each drum if the waste appears to be

inconsistent with the pre-acceptance waste characterization data.

The ~~Facility~~ Permittee can increase this sampling rate for any reason. For example, the ~~Facility~~ Permittee may decide to collect additional samples if the waste appears to be inconsistent with the pre-acceptance characterization data. In some instances, the ~~Facility~~ Permittee may elect to waive one or more analyses under the following conditions:

- the transported waste is a portion of a continuously shipped, well documented waste stream, such as waste produced from a consistent, non-variable process or contaminated soils from a specific remedial action;

- the waste has been approved for receipt by NMED on an emergency basis; or

- ~~Facility~~ Permittee personnel at the point of generation sampled, or oversaw the sampling of, the waste, and the fingerprint test/supplemental analyses have been conducted. (In cases where a generator is sending very large or continual shipments, the ~~Facility~~ Permittee may elect to station personnel at the point of generation to obtain samples prior to or during loading of the waste).

Prior to waiving sampling and analysis requirements, however, the ~~Facility~~ Permittee will request a variance from NMED and will not dispose of the waste until NMED approval is received.

4.4.3.2 Annual Analysis

As part of the ~~Facility~~ Permittee's QA/QC procedures (see Section 4.7), the representative sample analysis for each waste stream from each generator will be repeated annually. Repeating this pre-acceptance procedure will ensure that the analysis is accurate and up-to-date and that the waste stream has remained within the operational bounds of the facility. This annual analysis will be performed by an independent laboratory. This analysis will be repeated more frequently if the ~~Facility~~ Permittee believes, or has been informed by the generator, that the process generating the waste stream has changed. ~~The generator will be required to provide the facility with a revised Waste Profile Form and a representative sample of the changed waste prior to the first shipment of the waste after a process change~~In the case of a change in the waste generation process the waste stream will be managed as a new waste stream in accordance with the requirements of this waste analysis plan.

4.4.4 Acceptance/Rejection Determination

4.4.4.1 Discrepancy Resolution

Upon completion of the fingerprint analysis, a determination will be made as to whether or not the wastes are consistent with the pre-acceptance waste characterization information and within acceptance limits of the facility and specific management units. If any of the analyses determine the waste is not within a specific management unit's operational acceptance limits, the waste will not be accepted by the ~~Facility~~Permittee for that unit. If the results of the analysis conflict with the waste profile information, the ~~Facility~~Permittee may take any or all of the following actions:

- resample the waste, if necessary, and perform a second fingerprint test. The ~~Facility~~Permittee manager has discretion to accept the waste if the second fingerprint results match those on the waste profile sheet. The discrepancy between results will be explained and included in the ~~Facility~~Permittee Operating Record for that waste stream or shipment;

- perform further characterization as necessary to verify the composition of the waste by sending a sample to a qualified independent analytical laboratory; and/or

- reject the entire waste shipment or the nonconforming portion of the shipment.

4.4.4.2 Shipment Acceptance Procedures

Once the decision has been made to accept a waste shipment, the appropriate papers will be signed for the generator, and the waste stream will be transported by truck to an appropriate management unit.

4.5 WASTE ANALYSIS

Tables 4-~~2~~1 through 4-~~4~~3 specify parameters which will be analyzed to ensure that all criteria for waste acceptance and management are met. ~~If analytical methods other than those contained in this section are found to be necessary, the facility will refer to the most current version of EPA document SW-846 to select appropriate methods. All analytical methods contained in this section will be updated to conform with updates recommended in SW-846 or by the Americal Society for Testing and Materials (ASTM)~~The ~~Facility~~Permittee will use approved analytical methods

from SW-846, the American Society for Testing and Materials (ASTM), or other approved method.

Attachment E2 identifies the parameters and analytical methods which will be used to test hazardous waste managed at the facility. Requirements for the pre-acceptance analysis of a representative sample of waste generated off-site and for the annual analysis are discussed in Sections 4.5.2 and 4.5.3 of Attachment E1, respectively. Section 4.5.4 of Attachment E1 contains requirements for fingerprint testing. Section 4.5.5 of Attachment E1 contains waste analysis requirements specific to storage, treatment, and disposal units. Section 4.5.6 of Attachment E1 contains requirements for waste analysis of waste generated on-site. [illegible] and is incorporated into Attachment E1.

TABLE 4-1
~~EXAMPLE~~ PARAMETERS AND METHODS FOR PRE-ACCEPTANCE REPRESENTATIVE SAMPLE ANALYSIS*

Waste Parameters	Extraction/ Sample Preparation	Method1
Volatile Organic Compounds	5021 5031 5032 5035	8260
Semivolatile Organic Compounds	3510 3520	8270
Organochlorine Pesticides	3510 3520	8081/8270
PCBs	3520	8082/8080
TCLP: Organics	1311	8260/8270/8080/8150
Chlorinated Herbicides	81512	8151
Reactive Cyanide		9014
Reactive Sulfide		9034
Water		ASTM C566
Ignitability		1010/1030
Flashpoint		1010/1020A
Corrosivity to metals		1110 pH paper pH electrometer 9040A/9041A/9045A
pH		9040A/9041A9045A
Dioxins		8280
Total Metals	3000 1311	6000 series 7000 series
Liner Compatibility Tests		9090A
Extractable volatiles	3500	8260
Extractable semivolatiles	3500	8270

Notes: [1]Most current revision of SW-846 will be used.
[2]Method 8151 contains the extraction, cleanup, and determinative procedures for these analytes.

TABLE 4-2
ANALYTICAL METHODS FOR FINGERPRINT SAMPLES*

Test	Method and Description	Qualitative or Quantitative
Flammability Potential Screen	ASTM D4982	Qualitative
Free Liquids	Paint filter test, penetrometer, or visual/9095	Qualitative
Ignitability	Match test, Pansky-Martens closed cup or Set-a-flash 1010/1020A	Qualitative
Miscibility	50/50 mixture with water	Qualitative
Water Mix	ASTM D5058 Test Method C	Qualitative
Chlorinated Solvents	Colorimetric test or Beilsten test	Quantitative
Cyanide	Electrode or colorimetric test (ASTM D5049 Test Method B)	Quantitative
PCBs	Colorimetric test/8080	Quantitative
Specific Gravity	Hydrometer/Method dependent on material composition and physical state	Quantitative
Sulfide screen	ASTM 4978	Quantitative

*The table represents examples only. Final methods will be based upon specific [illegible] waste.

TABLE 4-3
ADDITIONAL ANALYTICAL METHODS*

Method	Reference	Description
Paint Filter Test	EPA 9095	This test will determine the free liquids that are contained within the waste matrix and will be used as a control parameter for wastes that are to be landfilled.
Heavy Metals	6010A/7470	This test determines the concentration of heavy metals.
Free Cyanides	APHA 412G, H	This test determines if cyanides could potentially be reactive under acidic conditions.
Toxicity Characteristic Leaching Procedure[1]	Extraction Method 1311/3010A	Determines if waste, or stabilized waste, contains level of restricted constituents above BDAT treatment standards.
Total Organic Halogens	EPA 9020	Determines if the waste potentially contains LDR constituents above BDAT standards for □California List□ wastes.
PCBs	EPA 8080	Determines if PCBs are contained in the waste matrix and determines the concentration.
IR Scan	ASTM D2621, D4053	Determines the presence of organics and provides a rough estimate of their concentration.

[1]Analytical method chosen is dependent upon constituent being determined (i.e., Organics 8260, 8270, 8080).
*This table represents examples only. Final determination of methods will be made dependent upon the waste form, expected constituents, and available information regarding the waste.

4.5.2 Representative Sample Analysis

The ~~Facility~~Permittee will select appropriate parameters from Tables 4-~~2~~1, 4-~~3~~2, and 4-~~4~~3 for representative sample analysis (see Section 4.3.3) to ensure ~~that~~ that the representative sample of the waste matches the paperwork submitted by the off-site generator and that all three facility criteria are met.

Hazardous debris, as defined in 40 CFR 268.2(g), that has already been treated to meet the LDR treatment standards as described in 40 CFR 268.45 does not have to meet the representative sample analysis requirements if the ~~Facility~~Permittee determines that the generator provided waste characterization information that demonstrates that the proper EPA Hazardous Waste Numbers were applied and indicates whether or not the LDR treatment standards have been met.

4.5.3 Annual Analysis

The representative sample analysis for each waste stream from each generator will be repeated annually at an ~~off-site~~independent laboratory not used by the generator (see Section 4.4.3.2).

4.5.4 Fingerprint Analysis

Fingerprint testing (see Section 4.4.3.1) is an abbreviated analysis and is used to confirm that an incoming shipment of waste received at the facility is the actual waste expected and that it matches the expected chemical content for that waste. Parameters for analysis will be selected specifically for each waste stream based on the information supplied by the generator, the physical form of the waste, and the ~~Facility~~Permittee's evaluation of the waste. These parameters will be analyzed at the on-site laboratory. Analyses which are not within the on-site laboratory's capability will be sent to an independent ~~off-site~~ laboratory for analysis.

All samples taken for fingerprint analysis will be subject to the tests for physical appearance, pH, and radioactivity (see Table 4-~~2~~1). In addition, all samples will be subject to a minimum of one additional qualitative and one additional quantitative analysis, based on a consideration of the ~~Facility~~Permittee's

waste acceptance criteria. Supplemental analyses may be conducted to further characterize the waste; this determination will be made by the ~~Facility~~ Permittee.

4.5.5 Additional Analysis for Specific Management Units

4.5.5.1 Overview of waste management procedures in permitted hazardous waste management units

Upon completion of the fingerprint analysis, and supplemental analyses if conducted, waste will be transferred to the appropriate staging area. Prior to interim or final disposition of the waste, however, additional analyses may be required to ensure that requirements for permitted hazardous waste management units are met.

Analysis necessary for specific management units is generally conducted as part of the pre-acceptance procedure (see Section 4.7.2). Appropriate parameters will be selected from Tables 4-32 and 4-43. The ~~Facility~~ Permittee will use a combination of process knowledge and analytical results to obtain the information needed prior to placing waste in one of the management units. The ~~Facility~~ Permittee may elect to use other EPA approved analytical methods if it is felt that information other than that obtainable by these methods is needed to manage the waste safely.

All hazardous waste management units will have specific ignitability, reactivity, and compatibility requirements which must be met. Acceptable knowledge or waste analysis will be used to determine whether a waste stream is ignitable, reactive, or incompatible with other wastes when stored or mingled. In addition, acceptable knowledge or waste analysis will be used to determine whether the waste stream is compatible with the container or tank in which it is placed, or with the liner of the evaporation pond or landfill. Specific ignitability, reactivity, and compatibility tests will be conducted as part of the representative sample analysis, and may be repeated in the fingerprint test, for wastes assigned to specific management units. Management of these wastes is discussed in Vol. I, Section 5.5 of this application. Ignitability, reactivity, and compatibility determination is discussed in Section 4.5.1.2.

The ~~Facility~~ Permittee will conduct compatibility tests as part of the representative sample analysis procedure on an incoming waste stream specific to each management unit and specific to other waste streams with which it may be combined. Special requirements for specific management units are discussed in Sections 4.5.5.12 through 4.5.5.35.

~~Wastes will be stored in the containment vessel, the stabilization tanks. Initially, the waste will be placed in the containment vessel, or in other containers, as appropriate, and then placed in the stabilization tanks. Waste will be placed in containers when it is necessary to remove the waste from the containment vessel or stabilization tanks. Waste will be placed in containers when it is necessary to remove the waste from the containment vessel or stabilization tanks, whichever is the shorter time period. Waste will be placed in containers when it is necessary to remove the waste from the containment vessel or stabilization tanks, whichever is the shorter time period, and the waste will be placed in containers when it is necessary to remove the waste from the containment vessel or stabilization tanks, whichever is the shorter time period.~~

~~4.5.5.2 Waste Analysis Requirements Specific to Storage Units.~~

Wastes will be stored in the drum storage building, the roll-off container storage area, and the liquid waste storage tanks. ~~Containerized waste that are not compatible with other waste may be accepted but will be segregated within the facility. Waste analysis is acceptable knowledge that stored waste be compatible with other waste and the container or tank in which it is placed.~~ Waste characterization is accomplished through the representative sample analysis, the yearly update of the representative sample analysis, and on-going fingerprint analysis. The ignitability, reactivity, and incompatibility of each waste stream will be determined using procedures listed in Table 4-2 to ensure that stored waste is compatible with other wastes and with the container or tank in which it is placed. Spills or releases of hazardous waste and/or fluids removed from the leak detection systems will be tested to determine if the recovered material is hazardous.

Procedures from Table 4-3 will be used to determine whether a hazardous ~~hazardous~~ waste stored in containers ~~will be used to determine whether it~~ must comply with the requirements of 40 CFR 264, Subpart CC. If it must comply, the container will be managed to meet Container Level 1, and Level 2, ~~standards~~ standards as appropriate. Waste which must comply with the requirements of 40 CFR 264, Subpart CC, will not be placed in storage tanks.

The ~~facility~~ Permittee will ensure that containers are either at least 90 percent full when placed in the landfill, or are crushed, shredded, or similarly reduced in volume to the maximum practical extent.

4.5.5.~~2~~3 Waste Analysis ~~requirements~~ ~~Requirements~~ Specific to the Evaporation Pond

Liquid waste streams may be placed in the evaporation pond for drying before they are sent to the stabilization tanks for solidification. ~~Waste placed in the evaporation pond will be tested to ensure that it meets the requirements of this section.~~ Following evaporation of the pond liquids, sludge will be removed from the bottom with trash pumps or hand excavation equipment. ~~Sludge will be tested after removal from the evaporation pond.~~

~~prior to treatment in the stabilization tanks to ensure~~
~~[illegible] and to determine [illegible] mixture.~~

Waste will be characterized, using Tables 4-1 through 4-3, before it is placed in the evaporation pond. —A determination of ignitability, reactivity, and incompatibility with other wastes with which the waste may be combined and with the pond liner will be made. It will also be tested to ensure that the LDR standards are met and that the waste placed in the pond does not contain volatile organic concentrations equal to or greater than 500 ppmw.

Because evaporation in the pond may change the chemical composition of the waste, or different waste streams may be combined in the pond, analysis to ensure that the LDR standards are met will be conducted on a waste stream after it leaves the pond. Applicable knowledge will be used to determine appropriate parameters for analysis. If, after treatment, a waste displays a characteristic for the first time, the characteristic waste code will be added to the LDR Notification Form and ~~[illegible]~~ records. The waste will be retreated, if necessary, to meet the characteristic treatment standard before land disposal.

Dilution of restricted wastes will not be used as a substitute for adequate treatment for non-toxic hazardous characteristic waste. If toxic characteristic wastes and listed wastes are amenable to the same type of treatment and aggregation is a part of treatment, then the aggregation step does not constitute impermissible dilution.

4.5.5.~~3~~4 Waste ~~A~~analysis ~~R~~requirements ~~S~~specific to the ~~S~~stabilization ~~T~~tanks.

Waste treated in the stabilization tanks is characterized to determine the hazardous constituents contained in the waste and ~~to ensure that waste placed in the stabilization tanks is compatible with the tank liner and with the previous wastes to be treated. Acidic or caustic materials may be required for the stabilization process.~~

In addition to the representative sample provided by the generator during the pre-acceptance period, a second representative sample of any waste requiring stabilization prior to placement in the landfill (or a sample of waste coming from the evaporation pond for stabilization) must be supplied. This sample will be used for bench-scale testing to determine regulated constituent leaching based on varying admixtures and ratios (i.e., to determine treatability of wastes). The stabilization process will result in a dry and structurally stable material that is suitable for compaction and landfilling.

Bench-scale tests will be conducted as part of the representative ~~company~~ sample analysis for incoming waste streams which will go directly to the stabilization tanks, or for a waste stream from the evaporation pond. Selection of treatment reagents and quantities will be established according to the waste profile and the post-treatment LDR requirements. Stabilization agents that will be tested include, but are not limited to, lime, fly ash, and Portland cement.

The waste will also be treated to ensure that it does not contain volatile organic concentrations equal to or greater than 500 ppmw.

~~[illegible]~~

The EPA universal treatment standard (see 40 CFR 268.48) will be met for wastes treated on-site. Waste streams that carry more than one characteristic or listed EPA Hazardous Waste Number will be treated to the most stringent treatment requirements for each hazardous waste constituent, including underlying hazardous constituents. When wastes with different treatment standards are combined solely for the purpose of treatment, the most stringent treatment specified will be met for each hazardous constituent in the combined waste.

After stabilization, wastes will be retested prior to placement in the landfill to determine whether they meet LDR requirements. If LDR requirements are not met, the waste will be retreated. After testing, stabilized waste will be placed in roll-off containers and placed on the roll-off pad until cured.

4.5.5.~~4~~5 Waste Analysis Requirements Specific to the Landfill.

The stabilized waste will be retested prior to placement in the landfill to determine whether it meets LDR standards as set forth in 40 CFR 268, Subpart D. 40 CFR 268.40 states that a waste identified in the table "Treatment Standards for Hazardous Wastes" may be land disposed only if it meets the requirements found in the table. For each waste, the table identifies one of three types of treatment standard requirements:

- All hazardous constituents in the waste or in the treatment residue must be at or below the values found in the table for that waste ("total waste standards"); or

- The hazardous constituents in the extract of the waste or in the extract of the treatment residue must be at or below the values found in the table ("waste extract standards"; or

- The waste must be treated using the technology specified in the table ("technology standard") which are described in detail in 40 CFR 268.42, Table 4-1.

In cases where treatment standards are based on concentrations in the waste extract, the ~~Facility~~Permittee will use toxicity characteristic leaching procedures (TCLP, see 40 CFR 261, Appendix II) to determine if the waste meets the standards. The sampling and analysis protocols outlined in Sections 4.5 through 4. 7 of this permit application will apply to all wastes to ensure compliance with LDR standards. Parameters for analysis will be determined by the characterization of the waste before analysis. All information obtained to document LDR compliance will be maintained in the ~~Facility~~Permittee Operating Record.

In addition to other required procedures and analyses, on an annual basis the ~~Facility~~Permittee will randomly sample and analyze a minimum of 10 percent of incoming waste streams that are to be directly landfilled to verify conformance with the LDR requirements. These additional samples will be analyzed for the specific regulated hazardous constituents contained in the hazardous waste stream. The data generated from these samples, in conjunction with the generator-supplied data, will be used to verify conformance with the LDR requirements.

~~Facility~~Permittee personnel, either at the facility or at the point of generation, will collect these samples. The samples will be split into a minimum of two aliquots. One will be retained and the other analyzed for conformance with the applicable LDR requirements. If the results of the analysis indicate that the waste does not conform with the applicable LDR requirements, the retained sample will be analyzed, generator-supplied information re-evaluated, and an evaluation made of the potential for the waste's variability based on the process that generates the waste stream.

The retained sample will subsequently be analyzed, the generator-supplied information re-evaluated, and an evaluation made of the potential for the waste's variability based on the process that generated the waste stream. These factors, along with an evaluation of the QA/QC data from the laboratory (both the generator's and the ~~Facility~~Permittee's), will be used to determine if the subject waste stream is eligible for continued disposal at the facility or if additional treatment is necessary prior to disposal. Disposal of the waste stream will be discontinued until the discrepancy regarding compliance with the

LDR requirements has been resolved and the generator has demonstrated that its on-going program for compliance with LDR requirements is adequate.

Procedures to meet LDR standards for specific wastes include the following:

- **lab packs.** - Prior to disposal, hazardous wastes contained in lab packs will be treated to meet applicable treatment standards for each waste type identified. Procedures to determine applicable treatment requirements, and the subsequent treatment of lab wastes to applicable standards, will be consistent with procedures implemented for other waste types. Lab packs will also be analyzed to ensure that they do not contain hazardous wastes listed in 40 CFR 264, Appendix IV. In cases where hazardous lab pack wastes are combined with non-hazardous lab pack wastes prior to or during treatment, the entire mixture will be treated to meet the most stringent treatment standard for each hazardous constituent before being disposed of in the landfill;

- **ignitable or reactive wastes.** - Ignitable or reactive hazardous waste will be tested to ensure that it will not be placed in the landfill until the waste has been rendered non-ignitable or non-reactive by treatment;

- **characteristic wastes.** - Generator process knowledge and/or analytical data will be used to determine whether characteristic wastes meet the applicable treatment standards or to demonstrate that the waste has been treated by the appropriate specified treatment technology. In accordance with 40 CFR 268.41, where treatment standards are based on concentrations in the waste extract, generators shipping waste to the Permittee will determine if their wastes meet treatment standards;

- **bulk liquids.** All hazardous wastes will be tested for the presence of free liquids (paint filter test) to ensure that no free liquids are placed in the landfill. No containers holding free liquids will be placed in the landfill unless the container is in a lab pack, or the container was designed to hold liquid for use other than storage, such as a battery or capicitor, or the container is very small, such as an ampule;

- **Reactive wastes.** - Reactive wastes will not be placed in the landfill until they have been rendered nonreactive by treatment;

- **Incompatible wastes.** - Incompatible wastes will be sufficiently separated when placed in the landfill to ensure that they do not combine to cause adverse reactions. These wastes will be managed to ensure that they meet the requirements specified in 40 CFR 264.313 and 274.17. This management includes placing incompatible wastes in non-adjacent landfill grids and treatment of potentially noncompatible wastes prior to landfilling~~placed in different cells in the landfill~~; and

- **hazardous debris.** - Hazardous debris will not be treated at the facility. Therefore, the ~~facility~~Permittee will only accept hazardous debris that has been treated and certified to meet the LDR treatment standards specified in 40 CFR 268.45(b) or (c) by the generator prior to shipment to the ~~facility~~Permittee.

- **listed waste.**-Listed waste will not be placed in the landfill until it has been shown to meet the requirements of 40 CFR 268.40.

4.5.6 Waste Analysis Requirements for Waste Generated On-Site

4.5.6.1 Overview of Wwaste Ggenerated on-Ssite

The ~~facility~~Permittee is expected to generate some waste on-site through waste treatment, day-to-day facility operations, leachate, or releases of hazardous waste to the environment.

Waste generated on-site will be assumed to be RCRA-regulated until process knowledge and/or sampling and analysis can be used to determine the actual nature of the waste. Sampling and analysis will be accomplished in accordance with the requirements this waste analysis plan.

The ~~facility~~Permittee will select waste analysis parameters to confirm the identity of waste streams generated at the facility. The selection of waste analysis parameters will typically be based on knowledge of the physical and chemical processes that produced the waste stream. If there is doubt as to the specific source, the ~~facility~~Permittee will use the waste tracking system to identify all possible sources and to develop a list of specific parameters for laboratory analysis. Acceptable knowledge and analytical testing as necessary will be used to ensure compliance with LDR requirements and provide waste

compatibility and other information to determine appropriate waste management activities.

After analysis, the waste will be returned to the unit from which it came or sent to another appropriate unit. The [illegible] will ensure that all on-site generated waste sent to the landfill meets all LDR treatment standards.

Treated waste is considered newly generated waste because hazardous waste treatment at the facility will result in a change in the physical and/or chemical character or composition of the waste. ~~Waste analysis requirements for managing waste after treatment and before disposal in the landfill are discussed in Sections 4.5.2, 4.5.3, and 4.6.3.5.4.~~Treated waste will be recharacterized, using waste analysis or acceptable knowledge as appropriate and it will be tested to ensure that LDR treatment standards are met before disposal in the landfill. Waste analysis requirements are discussed in Section 4.5.5.5.

Day-to-day operations at the facility will produce some waste on-site from day-to-day operations (e.g., paint and paint strippers, laboratory chemicals and equipment, vehicle maintenance). This waste will be characterized using acceptable knowledge, or waste analysis if the source cannot be definitively determined. If it is hazardous waste, it may be sent to the evaporation pond or stabilization tanks for treatment as appropriate, and disposed in the landfill. If it is not hazardous waste, it will be sent off-site for disposal.

~~Landfill and evaporation pond liquids that are not the primary liquids are leachates in accordance with the definition in 40 CFR 260.10, which interprets leachates as multi-source leachates. These liquids are managed as wastes when they enter and are collected from either the leachate collection and removal system, the leak detection and removal system, and the monitoring system.~~

~~Leak detection and removal/vadose zone [illegible] evaporation pond leachate is discussed in [illegible], 2.6.1.2 and 2.6.4.[illegible] of this application. [illegible] removal of evaporation pond sludge are discussed in [illegible] 2.6.4.1. Sludge will be removed by [illegible] regular basis, dried, and sent to the stabilization for solidification. Evaporation pond leachate [illegible] meet applicable LDR requirements [illegible] this limitation in [illegible] control failure of the evaporation pond [illegible] [illegible] stabilization.~~

~~Leachate generated from the landfill will be pumped into the unit sumps into tanks or tankers trucks. Leachate in the sumps will be emptied approximately weekly. The sump pumps are equipped with high level alarms. If the sump pump fails to keep up with the leachate generation, the alarm will sound. The operator will be notified and will take appropriate action to prevent overflow of the sump.~~

A **release** is defined as "any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of hazardous waste (including hazardous constituents) into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing hazardous wastes or hazardous constituents)". The various types of releases and management procedures for each release are discussed below. ~~Releases are a primary concern because they allow further migration of this waste.~~

The ~~Facility~~Permittee has a number of ~~A~~areas/activities with the potential to generate releases of hazardous waste. ~~are identified in Table 4-14. The areas identified are shown in Volume III, Drawing 4, of this application. Table 4-14 also identifies release types and associated media.~~ Management protocols for releases generated on-site are discussed below:

- **spills and leaks.** - Spills and leaks may occur during ordinary facility operations (e.g., release of fluid from a leaking drum to the cell trench and sump in the drum handling unit, a spill at any loading or unloading area, or overtopping at the evaporation pond).

  Provisions for the detection, characterization, and management of spills and leaks are discussed in Vol. I, Sections 2.0, 5.4.2 , 6.3.5.2, and 6.3.7 of this application. ~~If spills or spills~~ and/or leaks are identified during inspections, the materials will typically be removed from the system, characterized, and managed appropriately. If necessary, the contaminated area will be sampled to ensure that all contaminated materials are removed.

- **decontamination rinse water.** - Personal protection equipment (PPE), as well as other equipment (e.g., trucks, sampling equipment, industrial absorbents used during spill or leak clean-up, emergency equipment), may become contaminated during the course of site operations such as the handling of wastes, the transfer of waste to another unit, or emergency operations. The water used to rinse this equipment will be analyzed to determine if it is a hazardous waste and if the equipment has been adequately decontaminated. Provisions for the

detection, characterization, and management of decontamination rinse water are discussed in Vol. I, Sections 5.2.5 and 5.2.10, and Vol III, Section 9.1.2, of this application. Rinse water will be removed to the truck wash area. Rinse water and residues will be chemically analyzed and handled in an appropriate manner;

- **run-on/run-off.** - stormwater control is provided by a network of surface run-on and run-off diversion channels and collection and detention basins (see Vol III, Drawing 25 of this application). To control the run-off from the facility, several collection channels and culverts will be built to divert discharges from storm events to a stormwater retention basin (see Section 2.7 of the Operations and Maintenance Plan, submitted separately). Procedures for management of run-on/run-off are discussed in Volume I, Sections 2.5.1.6, 2.6.1.4, and 5.4.2. Contaminated water will be characterized, treated in the evaporation pond and/or stabilization bins, and disposed of in the landfill in compliance with appropriate regulations. Sampling will be conducted upstream of the stormwater retention basin to determine the point where hazardous constituents were introduced into the stormwater. Appropriate corrective actions will be implemented to prevent further contamination during future stormwater events.

~~Section xx of Vol. I of this application specifies the sampling procedures that will be followed to properly characterize any contaminated run-on/run-off water.~~

- **investigation derived wastes.** - IDW may include drill muds, cuttings, and well installation purge waters associated with the investigation of spills and releases; purge waters, soils and other materials from regularly scheduled sampling activities associated with waste management units and the vadose zone monitoring system; and contaminated PPE. All IDW will be assumed to be hazardous waste until site or material specific information becomes available. IDW will be stored near the point of generation in appropriately labeled containers for no greater than 90 days and will be appropriately analyzed to determine whether it is either a characteristic or listed hazardous waste. Analysis of materials associated with the IDW may be used also to characterize the IDW. An example of associated analysis for urge waters from the vadose zone monitoring system would be the final analytical results for the samples collected to satisfy regularly scheduled monitoring requirements.

- **contaminated soil.** - Soil means unconsolidated ~~earthen~~ earthen material consisting of clay, silt, sand or gravel size particles as classified by the US Natural Resource Conservation Service, or a mixture of such materials with liquids, sludges or solids which is inseparable by simple mechanical removal processes and is made primarily of soil by volume based on visual inspection. Contaminated soil is soil impacted by a hazardous constituent release. Soil may become impacted by a release either at the surface or subsurface. If the contaminated soil exists at the surface, the appropriate response is described in the Contingency Plan in the Permit Application. If the contaminated soil exists subsurface, the appropriate response will be developed by NMED as permit conditions. Contaminated soils that are managed as hazardous wastes will be analyzed and managed in accordance with the ~~[illegible]~~ alternative LDR treatment standards for contaminated soil contained in 40 CFR 268.49.

- **air emissions.** - Procedures for detection of hazardous gases and volatile ~~organic~~ organic at the landfill are discussed in Vol. I, Sections 2.5.1.8 and 6.2.2 of this application. Procedures to minimize wind dispersal of dust throughout the facility are identified in Section 5.4.8. This section also discusses pollution control systems in the stabilization unit to minimize the release of ~~particulates~~ particulate to the atmosphere. ~~In facility~~ Permittee will apply to NMED for a new source emissions permit before start-up of operations.

- **Leachate.**-Leachate collected from the storage units or the stabilization building is treated as a spill or release. ~~Leachate~~ Leachate as used here refer to landfill and evaporation pond fluids. The definition of leachate in 40 CFR 260.10, collected from the Leachate Collection and Removal System, the Leak Detection system, or the Vadose Zone Monitoring System sumps.

Leak detection and removal/vadose zone monitoring for evaporation pond leachate is discussed in Vol. 1, Sections 2.6.1.2 and 2.6.4.3 of this application. Procedures for the removal of evaporation pond leachate are discussed in Section 2.5.4.3. Leachate will be removed by vacuum truck on a regular basis, combined with leachate from the landfill and treated in the stabilization tanks to remove free liquids and to ensure that LDR treatment standards are met.

Leak detection an removal/vadose zone monitoring for landfill leachate is discussed in Vol 1, Sections 2.5.1.3, 2.5.1.4, and 2.5.1.5. Leachate generated from the landfill will be pumped out

of the unit sumps into the temporary leachate storage tank. It will then be tested to assure compliance with LDR requirements defined in 40 CFR 268 for F039 listed wastes.

Leachate will be transferred daily from both the landfill and the surface impoundment sumps and combined in temporary storage tanks for management purposes. The combined leachate will be analyzed monthly for the F039 underlying ~~hazardous~~ constituents to determine whether it meets LDR treatment standards and can undergo evaporation in the surface impoundment prior to stabilization.

Leachate may also be collected from the Vadose Zone Monitoring Wells. These wells will be monitored monthly; if any fluids are present they will be sampled and analyzed for all F039 constituents. Biennially, the wells will be analyzed for all the Ground Waste Monitoring List identified in 40 CFR 264, Appendix IX.

Leachate sampling and analysis will follow the sampling and analytical procedures and recordkeeping requirements contained in the Vadose Zone Monitoring System Work Plan and this section.

~~THE FACILITYPERMITTEE WILL APPLY TO NMED FOR A NEW SOURCE AIR EMISSIONS PERMIT BEFORE START-UP OF OPERATIONS.~~

~~4.9.6.2 SELECTION OF WASTE ANALYSIS PARAMETERS. WASTE GENERATED ON-SITE WILL BE ASSUMED TO BE RCRA-REGULATED UNTIL PROCESS KNOWLEDGE AND/OR SAMPLING AND ANALYSIS CAN BE USED TO DETERMINE THE ACTUAL NATURE OF THE WASTE. SAMPLING AND ANALYSIS WILL BE ACCOMPLISHED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 4.7 THROUGH 4.9.~~

~~THE FACILITYPERMITTEE WILL SELECT WASTE ANALYSIS PARAMETERS TO CONFIRM THE IDENTITY OF WASTE STREAMS GENERATED AT THE FACILITY. THE SELECTION OF WASTE ANALYSIS PARAMETERS WILL TYPICALLY BE BASED ON KNOWLEDGE OF THE PHYSICAL AND CHEMICAL PROCESSES THAT PRODUCED THE WASTE STREAM. IF THERE IS DOUBT AS TO THE SPECIFIC SOURCE, THE FACILITYPERMITTEE WILL USE THE WASTE TRACKING SYSTEM TO IDENTIFY ALL POSSIBLE SOURCES AND TO DEVELOP A LIST OF SPECIFIC PARAMETERS FOR LABORATORY ANALYSIS. ACCUMULATED KNOWLEDGE AND ANALYTICAL TESTING AS NECESSARY WILL BE USED TO ENSURE COMPLIANCE WITH LDR REQUIREMENTS AND PROVIDE WASTE COMPATIBILITY AND OTHER INFORMATION TO DETERMINE APPROPRIATE WASTE MANAGEMENT ACTIVITIES.~~

~~AFTER ANALYSIS, THE WASTE WILL BE RETURNED TO THE UNIT FROM WHICH IT CAME OR SENT TO ANOTHER APPROPRIATE UNIT. THE FACILITYPERMITTEE WILL ENSURE THAT ALL ON-SITE GENERATED WASTE SENT TO THE LANDFILL MEETS ALL LDR TREATMENT STANDARDS.~~

~~BOTH THE LANDFILL AND SURFACE IMPOUNDMENT F039 LEACHATE WILL BE ANALYZED SEPARATELY AT LEAST ONCE A MONTH AT THE POINT OF GENERATION. THESE LEACHATES WILL BE ANALYZED FOR THE CONSTITUENTS SPECIFIED IN 40 CFR PART 264, APPENDIX IX USING APPROPRIATE METHODS SPECIFIED IN SW-846. THE PURPOSE OF ANALYZING THESE LEACHATES IS TO IDENTIFY THOSE CONSTITUENTS THAT WILL BE MONITORED IN THE VADOSE ZONE MONITORING SYSTEM.~~

~~LEACHATES WILL BE TRANSFERRED DAILY FROM BOTH THE LANDFILL AND THE SURFACE IMPOUNDMENT AND COMBINED IN TEMPORARY STORAGE TANKS FOR MANAGEMENT PURPOSES. THE COMBINED LEACHATE WILL BE ANALYZED FOR THE F039 UNDERLYING HAZARDOUS CONSTITUENTS TO ASSURE COMPLIANCE WITH THE LDR UST PRIOR TO STABILIZATION TO DETERMINE WHETHER THEY CAN UNDERGO EVAPORATION IN THE SURFACE IMPOUNDMENT. LEACHATES THAT DO NOT MEET THE UST WILL UNDERGO STABILIZATION WITHOUT EVAPORATION. ESCAPED LEACHATES THAT HAVE BEEN RELEASED (SEE DISCUSSION ABOVE) ARE HAZARDOUS WASTES VIA THE CONTAINED IN RULE.~~

~~ANALYSIS OF THE F039 LEACHATE WILL FOLLOW THE SAMPLE COLLECTION AND QA/QC PROCEDURES OF SECTION 4.6 (SAMPLING PLAN), THE LABORATORY QA/QC PROCEDURES OF SECTION 4.8 (ANALYTICAL METHODS), AND THE RECORDING AND REPORTING PROCEDURES OF SECTION 4.9 (NOTIFICATION, CERTIFICATION, AND RECORDKEEPING).~~

~~4.6~~ SAMPLING PLAN

Prior to beginning operations, the ~~Facility~~Permittee will submit the ~~Facility~~Permittee sampling plan. The plan will be developed based upon the guidance provided in Chapter 9 of SW-846. The overall plan will take into account the regulatory and scientific objectives identified in this waste analysis plan. Based upon these objectives, the sampling strategy will ensure that the data collected will minimize the potential for accepting waste that is unsuitable for management at the facility.

The sampling program will take into account the different types of waste constituents and the various waste matrices that may be encountered. By taking these variables into account, the ~~Facility~~Permittee will identify the protocols by which sample locations will be selected and the methods most appropriate for collecting samples from the different waste streams.

The current revision of SW-846, ASTM methods, or other approved methods will be used, and site procedures will be revised as necessary to incorporate new requirements.

Sampling methods and collection techniques which will be included in the sampling plan are discussed in Section 4.6.1. Section

4.6.2 discusses the plan's quality assurance/quality control (QA/QC) procedures.

4.6.1 Sampling Methods

Sampling methods will follow Appendix I of 40 CFR, Part 261. Table 4-5, Sampling Methods, lists waste matrices and appropriate sampling methods that will be used at the facility. The methods and equipment used for sampling wastes will vary with the form and consistency of the material to be sampled.

4.6.2. Collection Techniques

This section discusses decision-making for selection of sample locations (Section 4.6.2.1) and sample types (Section 4.6.2.2).

4.6.2.1 Selection of Sample Locations

The ~~Facility~~Permittee will collect samples from containers and roll-off boxes using either random (i.e., probability) or biased (i.e., authoritative) sampling methods.

With random sampling, every unit in a population (e.g., every drum from a given waste stream in a shipment) has a theoretically equal chance of being selected for sampling. Consequently, data generated by these samples are unbiased estimators of the range of concentrations in a population. If a sufficient number of samples are taken, they would be representative of the average concentrations within the entire population.

There are a number of ways that samples can be randomly selected from a population of drums or from a particular location in a roll-off of non-liquid waste. In the case of drums, drum numbers could be randomly drawn, while for a roll-off of non-liquid waste, the container could have numbers assigned to an imaginary grid and the numbers selected using a random-numbers table.

With biased sampling, a preference is given to selecting only certain units in a population. This technique requires the sampler to use discretion and to have knowledge of the waste. The sampler selects the sample locations from areas where contamination is known or suspected (e.g., the sampler could collect a biased sample from areas where there is layering or differences in color or consistency). Also, the ~~Facility~~Permittee may use a field screening instrument to bias the sample location, (e.g., a photoionization detector could be used to select locations having higher volatile organic concentrations). EPA-approved ASTM method D140-70 identifies the procedure for estimating the number of containers that should be sampled.

The ~~Facility~~ Permittee will collect random samples from containers and roll-off boxes if the wastes are expected to be fairly ~~homogeneous waste~~ homogeneous waste streams. Biased samples will be collected if the wastes are expected to be or are found to be during the visual inspection fairly heterogeneous. For some waste streams, the ~~Facility~~ Permittee may use both sampling techniques.

The ~~Facility~~ Permittee will document the sampling technique that is used to locate each waste sample collected pursuant to this waste analysis plan. The ~~Facility~~ Permittee will maintain this information in the ~~Facility~~ Permittee Operating Record.

4.6.2.2 Sample Types

Samples of the waste will be collected as either composite or grab samples. The ~~Facility~~ Permittee will develop procedures for the collection of composite and grab samples before the facility becomes operational; these procedures will be included in the ~~Facility~~ Permittee sampling plan.

In composite sampling, a number of samples are initially collected from a waste and combined into a single sample which is then analyzed for the constituents of concern. Composite sampling is a valid method for homogeneous samples and tends to minimize the between-sample variation, much like the maximization of the physical size of a sample. This has the effect of reducing the number of samples that must be analyzed to verify the contents of a waste shipment. Composite samples can also be obtained from a waste that has stratified; however, a composite would only be made from samples obtained from the same strata within the waste. Composite samples will be taken with clean sampling equipment and samples will be blended before analysis. Composite sampling will be used to obtain samples of wastewaters.

Grab sampling will be used to obtain samples of nonwastewaters and heterogeneous wastes.

4.6.3 Sampling QA/QC

QA procedures developed for the sampling program at the facility will be included in the ~~Facility~~ Permittee sampling plan. These procedures will be conducted in accordance with the guidance provided in the EPA document SW-846 and EPA's guidance manual, *Waste Analysis at Facilities that Generate, Treat, Store and Dispose of Hazardous Waste*. The QA requirements will be applicable to on-site sampling (e.g., leachate collection system samples, truck rinsate, waste removed from the evaporation pond) as well as to the sampling of incoming waste shipments. This program is required for ensuring that decisions regarding the

acceptance and disposition of waste are based on sound, statistically valid, and documented data.

The sampling QA program will include the following:

- training requirements for personnel responsible for sample collection;
- chain-of-custody protocols for tracking samples;
- QA review of procedures to ensure proper use of equipment;
- protocols for equipment maintenance;
- identification of required sampling techniques for specific media;
- field sampling QC procedures; and
- documentation of sampling locations.

Deviations from the approved sampling program, sampling methods, or chemical analytical methods will be documented and reviewed by personnel responsible for site QA. NMED will be notified in writing of the QA exceptions within seven days of the occurrence and measures will be taken to correct the problems as soon as practicable.

4.6.3.1 Training Requirements for Personnel Responsible for Sample Collection

All personnel and supervisory staff responsible for collecting waste samples for screening and chemical analysis will be trained in the use of all sampling methods and equipment used at the site. The sampling methods and equipment include but are not limited to those listed in the EPA Waste Analysis Plan guidance manual.

The ~~Facility~~ Permittee will submit a Health and Safety Plan approved by a certified industrial hygienist to NMED for review and approval prior to accepting any waste at the facility. The Health and Safety Plan will be reviewed annually and updated as needed. The facility operations will comply with all applicable health and safety regulations in 20 CFR 1910, 20 CFR 1926, and 11 NMAC 5.1-5.4.

4.6.3.2 Chain-of-Custody Protocols for Tracking Samples

The integrity of the sampling/analytical scheme will be maintained by following chain-of-custody procedures from the point of sample collection through analytical data reporting to sample disposal. The possession and handling of samples will be traceable from the time of collection through analysis and final disposition.

A sample is considered to be in a person's custody if it is:

- in a person's physical possession;
- in view of the person after taking possession; or
- secured in a container sealed by the responsible person so that it cannot be tampered with during transport to the designated destination or during storage after being secured by that person in an area of restricted access.

The sampler will place a sample label on each sample container. The label will include the following information:

- sample number, a unique identifier that is traceable to the waste stream and shipment;
- name of collector (sampler);
- date and time of collection; and
- place of collection.

Labels will be affixed to sample containers prior to or at the time of sampling and will be filled out at the time of collection.

Sample chain-of-custody seals will be required if the sample is designated to leave the possession of ~~Facility~~ Permittee personnel for transport to an analytical laboratory. The seal will include the same information as the sample label. The seal will be attached in such a way that it is necessary to break it in order to open the sample container. In addition, chain-of-custody seals will be affixed to sample storage containers in a similar manner in order to prevent tampering prior to shipment from the ~~Facility~~ Permittee to off-site analytical laboratories. Samples and storage containers which require seals must be sealed prior to leaving the possession of ~~Facility~~ Permittee personnel.

To establish the documentation necessary to trace sample possession from the time of collection, a chain-of-custody record will be filled out and will accompany every sample. A sample chain-of-custody record is provided in Vol. II~~,~~ ~~Appendix ???~~ of this application.

If the sample is to be shipped off-site for analysis, it will be accompanied by a sample analysis request sheet. The sample analysis request sheet will include the information necessary to identify the sample and the analyses requested by the ~~Facility~~ Permittee. Samples shipped off-site for analysis will be packaged and shipped in accordance with DOT transportation requirements.

Laboratory samples will be maintained in a secure area and retained until holding times expire, as listed in SW-846, or three months, whichever comes earlier. After the holding time or three month holding period has expired, samples will be disposed at the facility with compatible waste batches. Records of the date the samples are removed from storage and the date and method of disposal will be maintained at the facility until completion of post-closure care. In cases where samples are not analyzed within their holding times, the ~~facility~~ Permittee will resample.

4.6.3.3 QA Review of Procedures to Ensure Proper Use of Equipment

Standard operating procedures will be developed for the use, decontamination, and storage of sampling equipment used to characterize waste shipped to the facility. The standard operating procedures will include the sampling equipment to be used, instructions for use, and the applications for use of the equipment for collection of samples from specific media and types of shipping containers. The procedures and QA standards for waste sample collection will be included in the standard operating procedures.

4.6.3.4 Protocols For Equipment Maintenance

The protocols for equipment maintenance will be included in the standard operating procedures. Protocols will be developed, as described in the preceding paragraph, for use, decontamination, and storage of equipment.

4.6.3.5 Identification Of Required Techniques For Specific Media

The sampling methods and equipment used for collecting samples from specific media will be selected in accordance with the guidelines included in 40 CFR, Part 261, Appendix I, and in the EPA guidance manual, *Waste Analysis at Facilities That Generate, Treat, Store, and Dispose of Hazardous Waste*, Chapter 2. Alternative sampling methods may be used with prior approval of NMED.

4.6.3.6 Field Sampling ~~QC~~ QC Procedures

Blank and duplicate samples will be obtained during waste characterization sampling to confirm that sample collection and handling procedures meet the QA/QC standards outlined in the standard operating procedures and data quality objectives included in the ~~facility~~ Permittee sampling manual. Duplicate samples will be collected at a minimum frequency of 10 percent (one for every 10 samples). Field blanks and equipment blanks will be collected at a minimum frequency of 5 percent (one for

every 20 samples). Trip blanks will be included with all sample kits where samples are sent to off-site laboratories for chemical analysis. The field QA samples are described below:

- **field blanks.** - Field blanks are prepared in the field by filling a clean container with pure de-ionized water and appropriate preservative (if required for a specific activity). Contaminants found may indicate airborne contamination, contaminated equipment, or cross-contamination during sampling. A minimum of one field blank will be collected for every 20 waste samples collected;

- **trip blanks.** - Trip blanks are sample containers that are prepared with an inert material such as de-ionized water and carried into and out of the field, but not opened at any time during the sampling event. Contaminants detected in the trip blank may indicate that the source where the sample was prepared or the container that transported the trip blank was contaminated. A trip blank will accompany all sample shipping containers sent from and to off-site laboratories;

- **equipment blanks.** - Equipment blanks are prepared in the field prior to sampling by running de-ionized water over sampling equipment and placing it into a clean sample container. Contamination in this type of sample will indicate that the sampling equipment is contaminated. A minimum of one equipment blank will be collected for every 20 waste samples collected; and

- **field duplicates.** - Field duplicates are independent samples that are taken from the same location at the same time and are used to measure the effectiveness of obtaining representative samples. A minimum of one field duplicate will be collected for every 10 waste samples collected.

4.6.3.7 Documentation Of Sampling Activities

Sampling activities, including observations and field procedures, will be recorded on appropriate forms and kept on file at the facility. Copies of the completed forms will be maintained in a bound and sequentially numbered file. The record of waste stream sampling activities will include:

- the date;
- the time of arrival and departure;
- weather conditions (including estimated temperature and wind direction);

- the name of the sample collector;
- daily activities and times sampling was conducted;
- observations;
- a record of samples collected, with sample designations and locations specified;
- field monitoring data, including health and safety monitoring;
- a list of equipment used and calibration records, if appropriate;
- a list of additional data sheets completed; and
- the signature of personnel completing the field record.

Each sample collected during waste stream sampling activities will be identified by a unique sample designation. The sample designation will be included on the sample label. QA samples will be designated with a "Q" (QA/QC samples) at the end of the sample designation, followed by one of the following to indicate the type of QA sample:

- **D.** - "D" will be used for a duplicate sample;
- **E.** - "E" will be used for equipment rinsate blanks;
- **F.** - "F" will be used for field blank samples; or
- **TB.** - "TB" will be used for field trip blanks.

This coding will be used to assure that duplicates and blanks are submitted "blind" to the laboratory, but can still be easily tracked by the ~~facility~~Permittee for QA purposes.

4.7 ANALYTICAL METHODS

Analytical methods which the ~~facility~~Permittee will use for specific tests are identified in the waste analysis tables (Tables 4-1 through 4-3). All analytical methods used in conjunction with this waste analysis plan must be EPA-approved methods or methods required by hazardous waste regulations. If there is no equivalent EPA-approved method, an ASTM method or other approved method may be used. ~~If the facility Permittee~~ or a generator wishes to use ~~another~~ alternate test methods, the ~~facility~~Permittee or generator will first demonstrate to the NMED Secretary that the proposed method is equal or superior to the corresponding methods prescribed in 40 CFR 261 or 264, in accordance with 40 CFR 260.21.

An example of a non-EPA method required by hazardous waste regulations are the ASTM tests specified in 40 CFR 264.314(e)(2) to determine the presence of nonbiodegradable sorbents.

Section 4.7.1 identifies the duties of the laboratory manager. Section 4.7.2 identifies the contents of the laboratory QA/QC plan. Requirements for off-site laboratories used by the ~~Facility~~Permittee are contained in Section 4.7.3.

4.7.1 Duties of the Laboratory Manager

The on-site laboratory manager will have the following responsibilities to ensure an effective quality assurance program:

- ensuring that laboratory personnel are adequately trained to perform sampling and analytical procedures and in safety procedures;
- ensuring that equipment and instrumentation under his or her control are calibrated and functioning properly;
- coordinating internal and external assurance audits;
- reviewing procedures and QA plans of outside laboratories used. QA/QC practices will be considered during the selection of independent analytical laboratories. QA/QC practices that will be reviewed include written procedures, certification, internal and external audits, personnel training, and chain-of-custody procedures; and
- development, updating, and implementation of the laboratory QA plan.

4.7.2 ~~Facility~~Permittee Laboratory QA/QC Plan

Prior to beginning operations, the ~~Facility~~Permittee will develop procedures which will comprise the laboratory QA/QC plan. The ~~Facility~~Permittee will develop a QA manual for operation of the on-site laboratory. The manual will be submitted to NMED for review.

The results of chemical analysis of waste samples generated by the on-site laboratory will not be used as part of the waste acceptance evaluation process prior to NMED's review of the QA manual.

The overall QA objective for measurement data is to ensure that data of known and acceptable quality are provided. All measurements will be made to yield accurate and precise results representative of the media and conditions measured. QA objectives for precision, accuracy, and completeness will be

established for each measurement variable, where possible, and will be included in the QA manuals of the on-site and off-site laboratories where waste samples will be submitted for chemical analysis. The laboratory procedures, practices, and qualifications will be included in the QA manual for each laboratory.

The laboratory QA plan will also include descriptions of procurement, sample management, bottle preparation, detection and quantification limits, evaluation of QC samples, data verification, reporting, and sample and records management. Other procedures which will be included in this plan are:

- laboratory quality assurance;
- equipment calibration;
- laboratory QA/QC samples;
- laboratory QC;
- analytical procedures; and
- laboratory maintenance.

4.7.2.1 Laboratory Quality Assurance

The Permittee laboratory and each off-site laboratory will maintain an internal quality assurance program, as documented in its laboratory quality assurance manual. The laboratories will use a combination of blanks, surrogates, duplicates, MS/MSD (matrix spike/matrix spike duplicate) and laboratory control samples, BS/BSD (blank spike/blank spike duplicate), to demonstrate analytical QA/QC. Control limits will be established for individual chemicals or groups of chemicals based on the long-term performance of the test methods. The specific procedures to be completed and the laboratory control limits will be included in the QA manual for each laboratory.

4.7.2.2 Equipment Calibration

The laboratory equipment calibration procedures, calibration frequency, and calibration standards will be in accordance with EPA (or equivalent method) specified test methodology requirements and will be documented in the laboratory's QA manual. All instruments and equipment used by the laboratory will be operated, calibrated, and maintained according to manufacturers' guidelines and recommendations. Operation, calibration, and maintenance will be performed by personnel who have been properly trained in these procedures. A routine schedule and record of instrument calibration and maintenance will be kept on file at the laboratory.

4.7.2.3 Laboratory QA/QC samples

Analytical procedures will be evaluated by analyzing reagent or method blanks, surrogates, MS/MSDs, BS/BSDs, and/or laboratory duplicates, as required or appropriate for each method. The laboratory QA/QC samples and frequency of analysis to be completed will be in accordance with EPA or equivalent method protocols and will be included in the QA manual for each laboratory.

The laboratory QA manuals and procedures will incorporate data quality objectives (DQOs) to verify that waste characterization data obtained by the methods established in this waste analysis plan meet regulatory requirements with regard to regulatory compliance and ~~Facility~~ Permitted waste management requirements. The following DQOs are established for the sampling and analysis of waste managed by this ~~Facility~~ Permitted;

- Identify and quantify the hazardous constituents in the waste to ensure compliance with 40 CFR 264 and the requirements of the facility permit, and

- Compare the contaminant concentrations in the waste with the specified characteristics of 40 CFR 261 in order that the waste may be managed in accordance with ~~Facility~~ Permitted requirements.

To ensure that the laboratory data quality objectives are met, the following analyses will be completed in the laboratory to monitor the analytical process:

- **laboratory duplicate samples.** - Laboratory duplicate samples will be analyzed to monitor for intralaboratory precision of data generated. These samples will be analyzed at a rate of no less than five percent (one for every 20 samples) of the total samples with at least one replicate if fewer than 20 samples are analyzed for any particular parameter;

- **spiked samples (MS/BS).** - Spiked samples will be analyzed to monitor analytical precision. Spiked samples will be tested on no less than a five percent (one for every 20 samples) basis for any particular parameter. At least one spiked sample will be run if fewer than 20 samples are analyzed;

- **control charts.** - Control charts will be utilized to establish laboratory control limits to monitor and review the accuracy of the data generated as a result of spike analyses. Control limits reflect long-term data accuracy trends and will be modified as new data are acquired;

- **method/reagent blanks.** - Method/reagent blanks will be prepared using samples of purified water or reagents which will then subjected to the entire sample analytical procedure to monitor potential contamination of samples due to contamination in the laboratory or laboratory equipment. Method or reagent blanks will be included with each set of samples;

- **laboratory equipment blanks.** - Laboratory equipment blanks will be analyzed to monitor potential contamination of samples due to improper or ineffective cleaning of equipment. These samples will be analyzed at a rate of no less than five percent (one for every 20 samples) of the total samples;

- **quality control samples.** - QC samples will be analyzed to monitor for accuracy of data generated. EPA QC samples or samples purchased from a reputable independent source will be submitted to off-site laboratories as blind samples for chemical analysis of a set of selected analytes approved by NMED at the beginning of the facility operation and also at regular intervals during the facility operating life;

- **surrogates.** - Surrogates will be analyzed in accordance with EPA guidelines for organics analysis. Surrogate recovery is a measure of the effectiveness of the analytical process. Surrogates will be tested on no less than a five percent (one for every 20 samples) basis for any analysis of organic compounds;

- **calibration standards and devices.** - Calibration standards and devices will be used in accordance with the manufacturers' recommended guidelines to calibrate laboratory instrumentation; and

- **internal standards** - Internal standards prepared in the laboratory will be referenced against external standards to measure accuracy.

Laboratory QC procedures will be included in the laboratory QA manuals prepared by each laboratory.

4.7.2.4 Laboratory Quality Control

QC objectives for the analytical data are a means of checking and controlling the sources of error in analytical data results. The criteria for data evaluation include assessing the data

accuracy, precision, completeness, representativeness, and comparability. The criteria are described below:

- **accuracy.** - Accuracy is a measure of the error between chemical analytical results and the true sample concentrations. Accuracy is a measure of the bias in a system and will be expressed as the percent recovery of spiked samples. Accuracy will be presented as percent recovery and will be calculated as follows:

  $\%R - (S-U) \times 100\%C_{sa}$

  where

  $\%R$ = percent recovery

  S = spike sample analytical result

  U = sample analytical result

  C_{sa} = known spike concentration

- The data quality objectives (DQOs) for accuracy for each analytical method will be presented in the laboratory QA manual;

- **precision.** - Precision is a measure of data variability. Variability can be attributed to sampling activities and/or chemical analysis. Relative percent difference (RPD) will be used to assess the precision of the sampling and analytical method and will be calculated as follows:

  $RPD = [.C_1 - C_2./(C_1 + C_2)/2)] \times 100$

  where

  RPD - relative percent difference

  C_1 = larger of the two concentrations

  C_2 = smaller of the two concentrations

- The DQOs for precision for each analytical method will be presented in the laboratory QA manual;

- **completeness.** - Completeness will be evaluated to assess whether a sufficient amount of valid data is obtained. Completeness is described as the ratio of acceptable measurements. Completeness will be calculated as follows:

  C = (Number of samples having acceptable data)/(total number of samples analyzed) x 100%

  where

  C = completeness

The DQOs for completeness will be presented in the laboratory QA manual;

- **representativeness.** - Representativeness is a qualitative parameter related to the degree to which the sample data represent the specific characteristics of concern. Procedures in sample collection will be implemented to assure representative samples, such as repeated measurements of the same parameter from the same waste stream in the same shipping container over several distinct sampling events. Any procedures or variations that may affect the collection or analysis of representative samples will be noted and the data qualified as appropriate; and

- **comparability.** - Comparability is a qualitative parameter related to whether similar sample data can be prepared. To assure comparability, analytical results will be reported in appropriate units for comparison with other data (such as past studies or clean-up standards), and the standard collection and analytical procedures included in this waste analysis plan will be implemented. Any procedures or variations that may affect comparability shall be noted, and the data will be qualified as appropriate.

4.7.2.5 Analytical Procedures

Specific QA/QC procedures to be used for sampling, chain-of-custody, calibration, analytical methods, reporting, internal QC, audits, and preventative maintenance will be included in the laboratory QA manual.

Laboratory procedures and methods to be used will contain all of the information presented in the EPA document, SW-846, for each method. The format for each method will be similar to that used in SW-846. If there is no appropriate SW-846 method ASTM or other approved methods will be employed. The laboratory procedures and methods also will include the following:

- **scope.** - A description of the scope of applicability of the procedure;

- **principal.** - A brief description of the steps to be taken and/or the theory involved in the laboratory analysis;

- **interference.** - A description of known interfering agents that would cause difficulty in the laboratory analysis;

- **apparatus.** - A listing or description of equipment required to perform the laboratory analysis;

- **reagents.** - A listing of the reagents required, a description of the steps involved in preparing the reagents, and instructions on storage requirements and retention times;

- **procedures (instructions).** - An enumeration of the sequence of activities to be followed. The topics include sample preparation or pretreatment, sample storage requirements, instrument set-up, standardization or calibration, sample analysis, calculations, and glassware-cleaning procedures. The procedure includes any precautions, explanation, or clarifications needed to properly perform the analysis. These include safety precautions, the frequency of standardization required, the acceptance criteria or procedures for determining the acceptability of standard curves, clarification or special techniques critical to the analysis, and the procedure the analyst uses to determine the reliability of sample results based on the standard curves;

- **quality control requirements.** - A listing of the QC checks to be performed and the acceptance criteria used to evaluate the QC data; and

- **reference.** - A listing of the publications from which the information was derived in preparing the laboratory method. All references pertain to these documents. As a rule, laboratory methods are derived from the following publications:

  - *Standard Methods for the Examination of Water and Wastewater*, American Public Health Association;
  - *Annual Book of Standards*, American Society for Testing and Materials;
  - *Methods for Chemical Analysis of Water and Waste*, US Environmental Protection Agency;
  - *Test Methods for Evaluating Solid Waste*, SW-846, US Environmental Protection Agency;
  - *National Functional Guidelines for Organics Data Review*; and
  - *Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses.*

Editions used will be those currently specified in 40 CFR, as updated.

4.7.2.6 Laboratory Maintenance

The analytical laboratory will have in place a procedure that details the steps to be taken to calibrate and standardize instruments to ensure that analytical data produced are accurate. Records of all calibrations, preventative maintenance, and service calls will be readily available from the laboratory files. Calibration procedures will follow the method procedures outlined in the EPA document, SW-846, or the *Annual Book of ~~[ASTM]~~ Standards*.

A procurement procedure that identifies methods to be used to document and control the purchase of materials, parts, and services will be implemented by the laboratory and will be presented in the laboratory QA manual. The procedure will include identifying the quality of laboratory chemicals and equipment, management approval of procedure items, inspection of shipments for compliance with requirements, and isolation of nonconforming items to be returned to vendors. The quality of all equipment will conform to the requirements specified in the most current edition of the EPA document, *Handbook of Analytical Quality Control in Water and Wastewater Laboratories*, the Federal Register, or other regulatory agency publications. This procurement procedure will serve to ensure that spare parts routinely required will be readily available.

4.7.3 Requirements for Off-Site Laboratories

The ~~Facility~~Permittee will document that the following conditions are met for each off-site laboratory performing waste analyses for the ~~Facility~~Permittee:

- the laboratory will not be the same laboratory that was used by the generator;
- the laboratory must be approved by the ~~Facility~~Permittee;
- the laboratory must use the analytical methods identified in Section 4.5;
- if there is more than one analytical method for a specific test identified in Section 4.5, the laboratory must follow the guidance in Chapter Two of the current version of EPA document SW-846 to determine the appropriate analytical method; and

- the laboratory must follow the QA/QC requirements described in this waste analysis plan.

4.8 WASTE TRACKING

To identify and track the waste managed at the facility, a facility-specific number will be assigned to each waste stream and to each shipment within that waste stream. Each waste shipment will be tracked using a unique alphanumeric designation. This designation will identify the generator, a sequential number specific to the shipment, substance and source and the delivery date (or, in the case of site-generated waste, the date the waste entered the system). An example is presented below:

ABC-0001-043099
where
ABC identifies the generator
0001 identifies the waste stream, source, and shipment
043099 is the date the waste was delivered.

The waste numbering system will assist in the tracking of waste as it moves through the facility. The number will be recorded on:

- all incoming paperwork from the generator;
- samples received from the generator;
- samples taken on site; and
- site-generated records.

The date will not be recorded until the waste actually arrives on site. This numbering system will allow the ~~facility~~ Permittee to track a specific waste with regard to analyses conducted, necessary treatment, and the final disposition of the waste. In addition, assigning a unique designation to each generator and a unique number to each waste stream from that generator will make possible determining the amount of waste from a given waste stream that has been received by the ~~facility~~ Permittee. Individual shipments from within the waste stream will receive an additional identifier to enable the ~~facility~~ Permittee to tie information back to the specific shipment as well as to the waste stream. The system will allow the ~~facility~~ Permittee to locate the current position of the waste at the facility, including the location of the waste in the landfill.

Tracking waste in this manner will allow the ~~facility~~ Permittee to determine the efficiency and accuracy of a generator's profiling efforts and the rejection rate for incoming waste. This information will be used to assist ~~facility~~ Permittee operations in determining the rate of fingerprint analysis required for a given generator.

The ~~Facility~~ Permittee number will designate waste generated on site. All other numbering and tracking will be the same for all waste managed at the facility. The tracking system will be maintained in the ~~Facility~~ Permittee records as either hard copy or electronically (computer database).

4.9 NOTIFICATION, CERTIFICATION, AND RECORDKEEPING

The ~~Facility~~ Permittee will maintain a ~~Facility~~ Permittee Operating Record in accordance with 40 CFR 264.73. The Operating Record will include:

- all analytical results;
- all chain-of-custody forms;
- generator notices of restricted wastes not meeting treatment standards or exceeding levels specified in RCRA Section 30049(d), including the information listed in 40 CFR 268.7(a)(1); and
- generator notices of restricted wastes meeting applicable treatment standards and prohibition levels, including the information in 40 CFR 268.7(a)(2).
- all final disposition records;
- all manifest and waste discrepancy resolution documentation; and
- all other information (e.g., notifications, certifications, waste analysis reports, waste movements) which will be maintained in the Operating Record as noted in this waste analysis plan.

As required in 40 CFR 268.7, the following records will be maintained at the facility for wastes generated on-site, and/or documentation of treating restricted wastes:

- where on-site generated wastes are characterized to determine compliance with LDR standards using only process knowledge, all data used to make any such determination. This data will be maintained by site personnel;
- where a representative sample of waste is analyzed to determine compliance with LDR standards, all waste analysis information. This data will be retained on-site in ~~Facility~~ Permittee files; and

- all notifications and/or certifications submitted by waste generators. These records will be maintained until ~~facility~~ closure as required in 40 CFR 264.73.

In addition, relevant inspection forms and monitoring data will be maintained on file at the facility. Files will be maintained for a minimum of three years (for inspection records and LDR notification), or until approval of facility closure (for inventory records).

~~INSERT FIGURE 4-1.~~

~~PRE-ACCEPTANCE PROCEDURE FOR FIRST TIME WASTE~~

~~INSERT FIGURE 4-2.~~

~~INCOMING WASTE SHIPMENT PROCEDURES~~

~~INSERT FIGURE 4-3.~~

~~SEQUENCE OF PROCEDURE SETS FOR DETERMINING REACTIVITY GROUP~~

~~INSERT FIGURE 4-4.~~
~~REACTIVITY GROUP DESIGNATION~~

~~Table 4-21~~
~~Basic Analytical Parameters~~

	~~Method~~	~~Matrix~~[1]
~~VOCs~~	~~SW-846 Method 8460B~~	~~L, Sl, S~~
~~SVOCs~~	~~SW-846 Method 8270C~~	~~L, Sl, S~~
~~Metals and Inorganic Constituents: Antimony, arsenic, barium, beryllium, cadmium, chromium (total), lead, mercury, nickel, selenium, silver, thallium, vanadium, zinc~~	~~SW-846 Methods: Applicable 6000 or 7000 series~~	~~L, Sl, S~~
~~Physical appearance~~	~~ASTM Method D4979~~	~~L, Sl, S~~
~~pH~~	~~SW-846 Method 9040B (pH Electronic Measurement, SW-846 Method 1110 (Corrosivity toward Steel), SW-846 Method 9041A (Paper Method), SW-846 Method 9045D (Soil and Waste)~~	~~L, Sl, S~~
~~Radioactivity screen~~	~~Industry standard survey technique (e.g., scintillation detector)~~	~~L. Sl, S~~

~~[1] L - liquids, Sl - sludges, S - solids~~

~~Table 4-32~~

~~Analytical Parameters to Ensure Compliance with LDR Standards~~

~~Parameter~~	~~Method[+]~~	~~Matrix[2]~~
~~TOC~~		
~~TSS~~		
~~Ignitability~~	~~SW-846 Method 1010 (closed cup test for liquids), SW0-846 Method 1030 (open cup test for solids)~~	~~L,Sl,S~~
~~Explosive meter vapor test (TLV sniff test)~~		
~~Total explosives test~~	~~SW-846 Method 83330 or US Army Corps of Engineers Method 8321 (liquid chromatography and mass spectrometry for total explosives)~~	
~~Flash point test~~		~~L, Sl, S~~
~~pH~~	~~See Table 4-21.~~	~~See Table 4-21.~~
~~Reactive sulfide~~	~~EPA Method 9030~~	~~L, Sl, S~~
~~Reactive cyanide~~	~~EPA Methods 9010 and 9012~~	~~L, Sl, S~~
~~Reactivity~~	~~EPA 600/2-84-057[3]~~	~~L, Sl, S~~
~~VOCs~~	~~See Table 4-21.~~	~~See Table 4-21.~~
~~SVOCs~~	~~See Table 4-21.~~	~~See Table 4-21.~~
~~Metals and inorganic constituents: Antimony, arsenic, barium, beryllium, cadmium, chromium (total), lead, mercury, nickel, selenium, silver, thallium, vanadium zinc~~	~~See Table 4-21.~~	~~See Table 4-21.~~
~~Organochlorine pesticides~~	~~SW-846 Method 8081A~~	~~L, Sl, S~~
~~Chlorinated herbicides~~	~~SW-846 Method 8151A~~	~~L, Sl, S~~
~~PCBs~~	~~SW-846 Method 8082~~	~~L, Sl, S~~
~~Leachate~~		~~L~~

~~[+] The method used must be capable of achieving detection limits below the applicable LDR standards contained in 40 CFR 268.40 and 268.48.~~

~~[2] L - liquids, Sl - sludges, S - solids~~

[3] ~~*Design and Development of a Hazardous Waste Reactivity Testing Protocol*, February 1984.~~

~~Table 4-43~~

~~Analysis to Ensure Compliance with Facility Regulatory and Operational Limits~~

~~Parameter~~	~~Method~~	~~Matrix~~[1]
~~Radioactivity screen~~	~~See Table 4-32.~~	~~See Table 4-32.~~
~~PCBs~~	~~See Table 4-32.~~	~~See Table 4-32.~~
~~Total VOCs~~	~~40 CFR 60, Appendix A, Method 25D; 40 CFR 136, Appendix A, EPA Method 624, 625, 1624, 1625; 40 CFR 136, Appendix A, Alternative Test Method; SW-846, Method 8260B~~	
~~Dioxins and dibenzofurans~~	~~SW-846 Method 8280A and 8290~~	
~~Nonbiodegradable sorbents test~~	~~ASTM Method 21-70; ASTM Method G22-76; OECD Test 301B; or ASTM Method G21-760~~	
~~Total organic halogens (TOX)~~	~~SW-846 Method 9020~~	
~~Free liquid content test (Paint filter liquids test)~~	~~SW-846 9095, penetrometer or visual~~	~~Sl, S~~
~~Toxic Characteristic Leaching Procedure (TCLP)~~	~~SW-846 Method 1311~~	~~S~~

[1] ~~The methods must be EPA-approved and must be either the most recent version of either SW-846 or ASTM methods.~~

[2] ~~L – liquids, Sl – sludges, S – solids~~

~~Table 4-1~~

~~Potential Release Types and Areas~~

~~Area~~	~~Type of Release~~	~~Matrix[1]~~
~~Drum Storage Area~~	~~Spills, leaks~~	~~L, S~~
~~Roll-Off Storage Area~~	~~Spills, leaks~~	~~L, S~~
~~Liquid Waste Storage Area~~	~~Spills, decontamination rinse water~~	~~L~~
~~Stabilization Area~~	~~Spills, air emissions, decontamination rinse water~~	~~L, S,A~~
~~Evaporation Pond~~	~~Evaporation pond fluids collected in the collection system Leachate, non-leachate, spills (including overtopping, sludges generated as a result of cleaning and repair of the liner system~~	~~L, Sl, S~~
~~Landfill~~	~~Leachate collected in the leachate collection system, non-leachate, spills, air emissions~~	~~L, Sl, S, A~~
~~Truck Wash~~	~~Decontamination rinse water, spills~~	~~L, Sl~~
~~Stormwater Retention Basin and ditches~~	~~Contaminated rain water, sediments~~	~~L, Sl~~
~~Sitewide Operations~~	~~Sampling (investigation derived waste, purge waters, spills, leaks~~	~~L, Sl, S, A~~

~~[1] L - liquids, SL - sludges, S - solids, A - air~~

~~Table 4-5~~
~~Sampling Methods~~

~~Waste Matrix~~	~~Sampling Method~~	~~Sampling Equipment~~
~~Extremely viscous liquid or sludge~~	~~ASTM D140-7000~~	~~Composite liquid waste sampler (Coliwasa), dipper, scoop, thief~~
~~Crushed or powdered material~~	~~ASTM D346-75~~	~~Scoop, shovel, tube sampler~~
~~Soil or rock-like material~~	~~ASTM D420-69~~	~~Scoop, shovel, auger~~
~~Soil-like material~~	~~ASTM D1452-65~~	~~Scoop, shovel, tube sampler~~
~~Fly ash-like material~~	~~ASTM D2234-76~~	~~Tube sampler, trier, auger, scoop, shovel~~
~~Containerized liquids~~	~~SW-846~~	~~Coliwasa, tube sampler, weighted bottle, dipper, thief~~

~~Table 4 ???~~

~~WHAT ABOUT THESE?~~

~~Parameter~~	~~Method~~	~~Medium Type~~	~~Qualitative or Quantitative~~
~~Flammability Potential Screen~~	~~ASTM D4982~~	~~Liquid, Sludge, Solids, Stabilized Waste~~	~~Qualitative~~
~~Free Liquids~~	~~SW-846 Method 9095 (Paint Filter Liquids Test), penetrometer or visual~~	~~Sludge, Solids, Stabilized Waste~~	~~Qualitative~~
~~Ignitability~~	~~Match test, Pensky-Martens closed cup or Set-a-flash~~	~~Liquid~~	~~Qualitative~~
~~Miscibility~~	~~50/50 mix with water~~		~~Qualitative~~
~~Water Mix~~	~~ASTM D5058 Test Method C~~		~~Qualitative~~
~~Chlorinated Solvents~~	~~Colorimetric Test or Beilsten test~~		~~Quantitative~~
~~Cyanide~~	~~Electrode or colorimetric test (ASTM D5049 Test Method B)~~		~~Quantitative~~

~~PCBs~~	~~Colorimetric Test~~		~~Quantitative~~
~~Specific Gravity~~	~~Hydrometer~~		~~Quantitative~~
~~Sulfide screen~~	~~ASTM 4979~~		~~Quantitative~~

~~Table 4 ??? (second table)~~
~~AND WHAT ABOUT THESE?~~

~~Method~~	~~Reference~~	~~Description~~
~~Paint Filter Test~~	~~EPA 9095~~	~~This test will determine the free liquids that are contained within the waste matrix and will be used as a control parameter for wastes that are to be landfilled.~~
~~Reactive Cyanide and Sulfide~~		~~This test determines if cyanides could potentially be reactive under acidic conditions.~~
~~Total Halogens~~	~~SW 846 9020~~	~~L, Sl, S~~
~~PCBs~~	~~EPA 8080~~	~~This test determines if PCBs are contained in the waste matrix and determines the concentration.~~
~~Water reactivity~~		~~Sl, S~~
~~Solids screen~~		
~~Oxidizer Screen~~		~~L, Sl~~
~~Reducer Screen~~		~~L, Sl~~
~~Water Reactivity~~		
~~Solids Screen~~		

~~. total explosives test. – This test determines whether the waste is reactive (i.e., explosive). This test is required if the waste contains explosive-contaminated soil or material or if the waste was previously a D003 reactive characteristic waste that was deactivated before shipment to the facility. If the concentration of total explosives is 10 percent or greater, the waste is rejected;~~

~~. bench-scale tests. – These tests are undertaken to determine regulated constituent leaching based on varying admixtures and ratios (i.e., to determine treatability of wastes.) These may be required during pre-acceptance testing if the waste is to be treated on-site;~~

~~. specific gravity. – This is a quantitative test to determine the sedimentation rate or buoyancy of wastes in suspension, as well as treatability. This test is only applicable to homogeneous wastes. The tolerance range for specific gravity is plus or minus 20%;~~

~~. cyanide screen. – This test determines if the waste has the potential to produce hydrogen cyanide gas upon acidification below pH2. This test is not required if the waste exhibits a pH below 2, if the waste is organic, or if the waste is not water-soluble;~~

~~. sulfide screen. – This is a quantitative test to determine if the waste has the potential to produce hydrogen sulfide gas upon acidification below pH 2. This test is not required if the shipped waste exhibits a pH below 2, if the waste is organic, or if the waste is not water-soluble; and~~

~~. total cyanide. – This test determines the chemical compatibility of wastes that are treated and disposed. This test may be required if the waste will be combined with other wastes during on-site treatment (e.g., placed with other wastes in the evaporation pond or stabilization tank);~~

~~. total sulfide. – This test determines the chemical compatibility of wastes that are treated or disposed. This test may be required if the waste will be combined with other wastes during on-site treatment (e.g., placed with other wastes in the evaporation pond or stabilization tank);~~

~~. IR scan. – ASTM D2621, D4053This test determines the presence of organics and provides a rough estimate of their concentration;~~

~~. solids screen. – This test determines solids management requirements. The tolerance range for a solids screen is plus or minus 20%;~~

~~(Trey, if the Facility wishes to do this test, you need to provide either an EPA-approved method or ASTM reference for the test method or have a facility-specific test developed for this and include it in the WAP. It appears as though Grassy Mountain has developed its own test for this.)~~

~~. oxidizer screen. – This test is a rapid qualitative method for determining the presence or absence of oxidizing materials in liquid or semi-solid materials. It is also used to indicate whether a material might be an ignitable waste (i.e., whether it is an oxidizer as defined in 49 CFR 173.151). The tolerance level for this test is positive to negative only;~~

~~(Trey, if the Facility wishes to do this test, you need to provide either an EPA-approved method or ASTM reference for the test method or have a facility-specific test developed for this and include it in the WAP. It appears as though Grassy Mountain has developed its own test for this.)~~

~~. reducer screen. – This test is a rapid qualitative method for determining the presence of absence of reducing materials in liquid or semi-solid materials. It is also used to indicate if a material has reducing properties that would affect the safe management of the waste. The tolerance level for this test is positive to negative only;~~

~~(Trey, if the Facility wishes to do this test, you need to provide either an EPA-approved method or ASTM reference for the test method or have a facility-specific test developed for this and include it in the WAP. It appears as though Grassy Mountain has developed its own test for this.)~~

~~. water reactivity. – This is a qualitative test to determine whether the waste has a potential to react vigorously with water to form significant gases or solids, or whether it generates significant heat. This test does not apply to wastes that are already in contact with excess water, or for which sufficient data exist that indicate no potential reactivity with water;~~

~~. flammability potential screen. – This is a qualitative test to indicate the fire-producing or explosive potential of the waste. This test is not necessary if other information clearly indicates the waste is not ignitable;~~

~~. chlorinated solvents. – This is a quantitative test....Colorimetric test or Beilsen test;~~

~~. miscibility. – This is a qualitative test....50/50 mix with water;~~

~~. one additional parameter. – One additional parameter, based on the facility's evaluation of the waste characterization information provided by the generator as described in Section 4.2.1, will be tested. WHAT IS THIS ALL ABOUT?; and~~

~~. unconfined compressive strength of cohesive soil. – This test will determine the compressive strength of a stabilized waste and may be performed on waste prior to landfilling. A DIFFERENT KIND OF TEST. INCLUDE OR NOT?~~

~~. cyanide. – This is a quantitative test....Electrode or colorimetric test (ASTM D5049 Test Method B);~~

~~. free cyanide (sulfide). – APHA 412G, II. This test determines if cyanide could potentially be reactive under acidic conditions. Acceptable limits are: total CN <1 000 mg/l; releasable CN <250 mg/l, if destined for direct landfilling. (Part of a chemical oxidation treatment.)~~

~~. corrosivity to metals (from Trey's list). – L: 1110.~~

ATTACHMENT F2

Introduction - Rationale for Analytical Parameter Selection

The analytical parameter lists for pre-acceptance waste characterization, fingerprint analysis, and additional unit-specific analysis are presented in Attachment F1, Tables 4-1, 4-2, and 4-3. The Permittee shall augment these lists, as necessary, to ensure additional considerations pertaining to waste-stream specific pre-acceptance characteristics, LDR standard analysis, and other Permittee operational limits are met. The rationale used to determine pre-acceptance characterization is specified in Section 1.0. The rationale for selecting additional parameters to ensure compliance with the LDR standards is specified in Section 2.0. The rationale for selecting parameters to ensure compliance with other Permittee regulatory and operational limits is contained in Section 3.0. For each waste stream accepted, treated, and disposed of at the facility, appropriate parameters will be selected to ensure that each of the Permittee criteria are met.

1.0 Parameters for Waste Characterization

Table 4-1, Attachment F1 specifies parameters to confirm that a waste stream agrees with the information provided by the generator. The rationale for the selection of these parameters is as follows:

- **total volatile organic compounds (VOCs)** - This test will determine the presence and concentration of individual VOCs.

- **total semi-volatile organic compounds (SVOCs)** - This test will determine the presence and concentration of individual SVOCs.

- **metals and inorganic constituents** - These tests will determine the presence and concentrations of individual metals and other inorganic constituents.

- **physical appearance** - This test determines the general identity of the waste and establishes baseline characteristics that can then be subjectively compared with the waste shipment when it arrives at the facility. The waste is visually inspected and the physical appearance of the waste is recorded, including, at a

minimum, the following properties: Color, physical state (solid, semi-solid, or liquid), texture, viscosity, layering (single phase, bi-layer, multi-layer) and presence of free liquids.

- **pH** - This test indicates the corrosive nature of the waste. It also determines compatibility with other wastes and with containers or liners, and treatment requirements. The tolerance range for pH is plus or minus 2.5 pH units.

- **radioactivity screen** - This test screens each load using a gamma ray scintillation detector or other appropriate equipment. This test will be used to ensure that the level of radioactivity observed in NORM waste or equipment from oil, gas, and water production containing hazardous constituents is not above regulated limits as defined in 20 NMAC 3.1, Subpart 14 (i.e., the maximum radiation exposure reading at any accessible point does not exceed 50 microroentgens per hour (μR/hr), and the maximum radiation reading for sludges and scales contained in oil, gas, and water production equipment does not exceed 50 μR/hr, or, if the radiation readings for removable sludges and scales exceed 50 μR/hr, the concentration of radium 226, in a representative sample, does not exceed 30 picocuries (30pCi/g)) or is not a material regulated under the Atomic Energy Act of 1954, as amended.

2.0 Additional Analysis to Ensure Compliance with the LDR Treatment Standards

The Permittee will ensure that LDR treatment standards are met by identifying the appropriate treatment standard requirements as follows:

- **total waste standards** - All hazardous constituents in the waste or in the treatment residue must be at or below the values for these constituents contained in the Table in 40 CFR 268.40.

- **waste extract standards** - The hazardous constituents in the extract of the waste or in the extract of treatment residue must be at or below the values found in the Table in 40 CFR 268.40.

- **technology standards** - The waste must be treated using the technology specified in the Table in 40 CFR 268.40.

Identification of parameters to demonstrate compliance with LDR standards will be conducted as follows:

- identification of all hazardous applicable characteristic and listed EPA Hazardous Waste Numbers

- identification of the appropriate subcategory for each applicable EPA Hazardous Waste Number (from the most current version of the Table in 40 CFR 268.40)

- determination of wastewater/non-wastewater status for the waste stream

- identification of all underlying hazardous constituents for each applicable EPA Hazardous Waste Number (from the most current version of the Tables in 40 CFR 268.40 and 268.48

- selection of the most current versions of the analytical methods associated with all identified hazardous wastes, underlying hazardous constituents, subcategories, and wastewater/non-wastewater status (from Table 4-2, SW-846, or equivalent).

The rationale for the selection of additional parameters to ensure compliance with the LDR standards is as follows:

- **total organic carbon (TOC)** - This test determines the total organic carbon concentration of the waste and is needed to determine whether the waste is a wastewater or non-wastewater.

- **total suspended solids (TSS)** - This test determines the total suspended solids concentration of the waste and is needed to determine whether the waste is a wastewater or non-wastewater.

- **ignitability** - This is a qualitative test to determine the ignitable nature of the waste, indicate if the waste is prohibited, and determine treatment requirements. It also helps to determine whether the waste is compatible with containers, tanks, liners, piping, structures, equipment, and other waste streams.

- **explosive meter vapor test (TLV sniff test)** - This test determines the fire-producing potential of the waste and whether it is regulated as flammable or combustible by the US Department of Transportation. If liquid waste exceeds 200 ppm, the waste will also be tested for ignitability using the flash point test. The tolerance range for the TLV sniff test is plus or minus 200 ppm.

- **flash point test** - This test determines the flash point of the waste and determines whether the waste is ignitable.

- **pH -** This test indicates the corrosive nature of the waste. It also determines compatibility with other wastes and with containers or liners, and treatment requirements. The tolerance range for pH is plus or minus 2.5 pH units.

- **reactive sulfide** - This test determines the reactive nature of the waste, indicates if the waste is prohibited, and determines treatment requirements. It is also used to determine whether the waste is compatible with containers, tanks, liners, piping, structures, equipment, and other waste streams. Wastes containing total releasable sulfide with concentrations less than 500 ppm are considered non-reactive.

- **reactive cyanide** - This test determines if cyanide could potentially be reactive under acidic conditions, indicates if the waste is prohibited, and determines treatment requirements. It also determines whether the waste is compatible with containers, tanks, liners, piping, structures, equipment, and other waste streams. Wastes containing total releaseable cyanide with concentrations less than 250 ppm are considered non-reactive.

- **reactivity (compatibility)** - This test determines the compatibility between the waste and the liner, tank, container, or equipment which the waste may contact.

  The Permittee will ensure that potentially incompatible wastes will not be stored, treated, or disposed of in the same location. The Permittee will perform a compatibility determination based on the pre-acceptance

waste characterization information. Acceptable knowledge or assessment information provided on the Waste Profile Form may be used to assign compatibility codes to each waste type form based on 40 CFR 264, Appendix V. For wastes that will be mixed with other waste streams for the purpose of treatment, chemical analysis will be required to ensure the compatibility of the waste streams.

Chemical analysis will be accomplished in three steps, as appropriate for the waste being analyzed:

- an analysis of the waste for reactive cyanide and sulfide. This analysis will be used to determine the waste's potential to release dangerous levels of hydrogen cyanide or hydrogen sulfide gases in acidic conditions (i.e., pH less than 2);

- an evaluation of the reactivity characteristics of the waste through process knowledge and a series of analytical procedures that will test for the presence of reactive chemical groups. The procedures in the EPA document, *Design and Development of a Hazardous Waste Reactivity Testing Protocol,* EPA-600/2-84-057, February 1984, will be followed and the results used to assign the waste a reactivity group designation. Figure 4-3, Sequence of Procedure Sets for Determining Reactivity Group, summarizes the reactivity testing protocol; and

- use of the reactivity group designation contained in Figure 4-3 to evaluate compatibility of the waste with other wastes by comparing it to the compatibility matrix shown in Figure 4-4, Reactivity Group Designation. (Refer to EPA document, *A Method for Determining the Compatibility of Hazardous Wastes*, EPA-600/2-80-076, April 1980, and 40 CFR Part 264, Appendix V, for additional information on waste compatibility);

- **total volatile organic compounds (VOCs)** - This test will determine the presence and concentration of individual VOCs.

Figure 4-3, Sequence of Procedure Sets for Determining Reactivity Group

Figure 4-4, Reactivity Group Designation and Compatibility Matrix

- **total semi-volatile organic compounds (SVOCs)** - This test will determine the presence and concentration of individual SVOCs.

- **metals** - These tests will determine the presence and concentrations of individual metals and other inorganic constituents.

- **organichlorine pesticides** - This test determines the pesticide concentration of the waste.

- **chlorinated herbicides** - This test determines the herbicide concentration of the waste.

- **PCBs** - This is a quantitative test to determine whether PCBs are contained in oil-bearing and other types of waste and to determine the concentration.

- **leachate** - Leachate must be tested for all leachate constituents listed in the Table in 40 CFR 268.40.

3.0 Additional Analysis to Ensure Compliance with Regulatory and Operational Limits

The rationale for the selection of additional parameters to ensure compliance with the Permittee's regulatory and operational limits is as follows:

- **radioactivity screen** - See Section 1.0. This test will determine if the waste is prohibited from acceptance at the facility (see Section 4.1.2 for a list of prohibited wastes).

- **PCBs** - See Section 2.0. This test will determine if the waste contains a prohibited concentration of PCBs.

- **VOCs (Subpart BB)** - These tests are conducted as required by 40 CFR 264.1063(d) to determine, for each piece of equipment subject to the requirements of 40 CFR, 264, Subpart BB, whether the equipment contains or exceeds 10 percent VOCs by weight. Applicable process knowledge may be used to make this determination.

- **VOCs (Subpart CC)** - These tests are conducted as required by 40 CFR 264.1084(a)(3)(iii) to determine, if wastes

placed in tanks, the evaporation pond, and the stabilization bins are subject to the requirements of Subpart CC. A hazardous waste with a volatile organic concentration equal to or greater than 500 ppmw will be accepted only for storage in approved containers and direct disposal in the landfill.

- **dioxins and dibenzofurans** - This test is conducted to ensure that the waste stream does not contain dioxins and/or dibenzofurans.

- **nonbiodegradable sorbent test** - This test is performed as required by 40 CFR 264.314 (prohibition of liquids in landfills). This test is required if the Permittee determines that the generator did not indicate whether a sorbent was added to the waste or indicates that a sorbent was added but did not specify the name and type of sorbent and whether it is nonbiodegradable. If any of this information is not present, the generator will be contacted for clarification. If uncertainty remains, 40 CFR 264.314(e)(1)(i-iii) will be reviewed. If the sorbent's biodegradability cannot be determined from the list or if the name of the sorbent is unknown, the material will be analyzed following one of the tests referenced in 40 CFR 264.314(e)(2). The Permittee will select one of the following tests:

  - ASTM Method G21-70 (1984a) - Standard Practice for determining Resistance of Synthetic Polymer Materials to Fungi

  - ASTM Method G22-76 (1984b) - Standard Practice for Determining Resistance of Plastics to Bacteria

  - OECD Test 301B - CO_2 Evolution (Modified Sturm Test) ASTM Method G21-70 (1984a) - Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi

  - Other approved test method

- **total organic halogens (TOX)** - This test determines if concentrations of halogens in the waste are in compliance with the LDR treatment standards. It also determines if the waste contains constituents that could degrade a liner. Wastes containing TOX greater than 1,000 mg/l

(based on TCLP extract) will not be placed in the evaporation pond or the landfill.

- **free liquid content test (paint filter liquids test)** - This test is a qualitative test to determine the free liquids concentration contained within the waste matrix and will be used as a control parameter for wastes that are to be landfilled.

- **toxicity characteristic leaching procedure (TCLP)** - This test must be used to obtain an extract of the waste where treatment standards are based on concentrations in the waste extract.

- major ions and metals in non-leachate (sulfides and sulfates, radionuclides, VOCs, SVOCs, pesticides, PCBs, perchlorate, and TPH).

ATTACHMENT Q
STATISTICS

OVERVIEW

In accordance with Permit Condition 7.5.1.a., these procedures shall be used to perform release determinations for metals and radionuclides in water (i.e., fluid) samples obtained in the vadose zone monitoring system (VZMS) wells. These procedures shall be applicable to the following analytes obtained under Permit Condition 7.3.1 and 7.3.3: dissolved and total metals (Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Hg, Ni, Se, Ag, Ti, Zn) and radionuclides (gross alpha, gross beta, gamma emitters, total uranium, radium 226/228, radon).

As identified in Permit Condition 7.5.1.a, note that the following procedures do not apply to general water chemistry parameters (bicarbonate, chloride, dissolved major cations) or to organic parameters. As identified in Permit Condition 7.5.1.a, release determinations for general water chemistry parameters shall be made through a trilinear diagram comparison between VZMS well fluid samples and baseline non-leachate fluid samples (i.e., fluid obtained by extracting non-leachate source water through representative soil samples obtained from the installation of the VZMS wells). The release determinations for organics shall be made by the detection of any organic in a VZMS well sample.

The overall statistical procedure for making release determinations for metals and radionuclides in VZMS well samples is as follows:

1. An upper tolerance limit shall be constructed for non-leachate analytes in water samples extracted under the Meteoric Water Mobility Procedure (MWMP) for baseline soil boring samples (or baseline soil cutting samples) obtained under 7.3.1. This non-leachate MWMP-extractant analyte tolerance limit shall be constructed for each individual metal analyte and for each individual radionuclide analyte in the non-leachate MWMP-extracted samples. These non-leachate MWMP-extractant analyte tolerance limits shall be reported as identified in Permit Condition 7.3.1.b.

2. Analyte concentrations of dissolved/total metals and radionuclides from VZMS well samples, as obtained under Permit Condition 7.3.3, shall be compared against each individual non-leachate MWMP-extractant analyte tolerance limit. The results of this comparison shall be reported according to VZMS well

sample reporting requirements established under Permit Conditions 7.4.2 and 7.5.2.

The construction of the non-leachate MWMP-extractant analyte tolerance limits shall adhere to the following guidelines:

1. A minimum of 20 non-leachate MWMP-extractant analyte concentrations (*e.g.*, total lead) from baseline MWMP-extractant samples are required to construct an adequate upper tolerance limit for each non-leachate analyte in the MWMP-extractant data sets.

2. Each set of non-leachate MWMP-extractant analyte concentrations shall be evaluated for the occurrence of values reported below the achievable detection limits (*i.e.*, non-detects). The procedure for performing this evaluation, and the methods to manage non-detects, is provided below.

3. Each set of non-leachate MWMP-extractant analyte concentrations shall be evaluated for normality using the procedure described below. If each set of non-leachate MWMP-extractant analyte concentrations from the MWMP-extractant samples exhibit a normal distribution, the non-leachate MWMP-extractant analyte tolerance limits shall be constructed on the original (*i.e.*, raw) data set using the parametric tolerance limit procedure described below. If each set of non-leachate MWMP-extractant analyte concentrations from the MWMP-extractant samples exhibits a log-normal distribution instead, the non-leachate MWMP-extractant analyte tolerance limit shall be constructed on the log-transformed baseline data set using the parametric tolerance limit, with the respective log-normal VZMS well sample concentration for that analyte being used in the comparison of the VZMS well sample to the log-normal non-leachate MWMP-extractant analyte tolerance limit.

These procedures are based upon the following guidance developed by the U.S. Environmental Protection Agency (EPA): *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Interim Final Guidance*, dated April 1989 (EPA Interim Final Guidance) and the *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Draft Addendum to Interim Final Guidance*, dated July 1992 (EPA Draft Addendum to Interim Final Guidance). Requirements set forth in the *Use of Tolerance Intervals for Determining Inorganic Background Concentrations* (New Mexico Environment Department, Hazardous and Radioactive Materials Bureau, dated March 2, 2000), shall also be adhered to, including the following: Each parametric and non-parametric analyte tolerance limit shall be constructed with a minimum of 20

MWMP-extractant samples; and each parametric analyte tolerance limit shall be constructed with a minimum coverage of 95% and a minimum tolerance coefficient of 95%.

MANAGING NON-DETECTS IN NON-LEACHATE MWMP-EXTRACTANT DATA SETS

If concentrations of any non-leachate MWMP-extractant analyte are reported below the achievable detection limits in each non-leachate MWMP-extractant analyte data set (*i.e.*, minimum of 20 samples), the following procedure must be followed before the tolerance limit is calculated for the data set.

If the non-leachate MWMP-extractant analyte data set has no more than 15% non-detects, use one-half of the detection limit for that particular measurement. Subsequently, proceed to the normality test procedures described below.

If the non-leachate MWMP-extractant analyte data set has more than 15% non-detects, but less than or equal to 50% non-detects, use Cohen's approximation to approximate the mean and standard deviation of the analyte non-leachate MWMP-extractant analyte data set. However, before calculating Cohen's approximation, it must be decided whether the analyte data is more closely approximate to a normal or a log-normal distribution. To make this determination, Censored Probability Plots, as described in EPA's *Draft Addendum to Interim Final Guidance*, should be constructed on both the raw measurements and the log-transformed measurements.

Compare the two Censored Probability Plots. If the plot based on the raw measurements is more linear than the plot based on the log-transformed values, compute Cohen's approximation using the raw measurements and then proceed with the normality test procedures described below. If the plot based on the log-transformed measurements is more linear, compute Cohen's approximation using the log-transformed measurements and then proceed with the normality test procedures described below.

If the non-leachate MWMP-extractant analyte data set contains more than 50% non-detects, then use the procedure to calculate then Non-Parametric Tolerance Limit for the data set, as described below.

NORMALITY TEST OF NON-LEACHATE MWMP-EXTRACTANT DATA SETS

Following the management of non-detects for each non-leachate MWMP-extractant analyte data set, the normality or log-normality of each non-leachate MWMP-extractant analyte data set must be confirmed before constructing the analyte tolerance limit for each data set. If the non-leachate MWMP-extractant analyte data

set contains more than 50% non-detects, do not test for normality and proceed directly to the method for calculating the non-parametric tolerance limit for the data set, as described below.

The normality or log-normality of each non-leachate MWMP-extractant analyte data set shall be tested by first constructing a probability plot on the compliance data, as described in the EPA's *Addendum to Interim Final Guidance*. In addition, since the probability plot is not a formal test of distribution, each compliance data set shall be assessed using the Shapiro-Wilk test of normality at the 0.01 level of significance. Note that to test normality of each non-leachate MWMP-extractant analyte data set, the raw measurements should be used in the construction of the probability plot and the calculation of the Shapiro-Wilk test. If normality of the data is confirmed, the non-leachate MWMP-extractant analyte data set tolerance limit can be calculated on the raw measurements, as describe below in parametric tolerance limit procedures below.

If the probability plot and the results of the Shapiro-Wilk test indicates the non-leachate MWMP-extractant analyte data set is not normally distributed, the data set should be log-transformed. Subsequently, the normality tests (*i.e.*, probability plot and Shapiro-Wilk test) should be applied to the log-transformed data set to determine if the non-leachate MWMP-extractant analyte data set is log-normally distributed. If log-normality of the data is confirmed, the parametric tolerance limit can be calculated on the log-transformed data set, as describe below in parametric tolerance limit below.

If both normality and log-normality of the non-leachate MWMP-extractant analyte data set are rejected using the probability test and the Shapiro-Wilk test at the 0.01 level of significance, then construct the non-parametric tolerance limit as described below.

PARAMETRIC TOLERANCE LIMIT FOR NON-LEACHATE MWMP-EXTRACTANT ANALYTE DATA SET

1. Calculate the mean, $\bar{X}$, and standard deviation, S, for the non-leachate MWMP-extractant analyte data set.

2. Construct the one-sided, upper tolerance limit for the non-leachate MWMP-extractant analyte data set as:

   $$\text{Tolerance Limit} = \bar{X} + K\ S,$$

   Where K is the one-sided normal tolerance factor found in the EPA Interim Final Guidance (Appendix B, Table 5).

3. Compare each dissolved/total metal analyte and radionuclide analyte obtained for each VZMS well sample, as obtained under Permit Condition 7.3.3, to each respective non-leachate MWMP-extractant analyte data set parametric tolerance limit constructed for the analyte under Step 2. If the non-leachate MWMP-extractant analyte data set tolerance limit was constructed on the logarithm of the original data, the logarithm of the VZMS well sample analyte should be compared to the non-leachate MWMP-extractant analyte data set tolerance limit for each analyte under Step 2.

4. If the VZMS well sample analyte concentration exceeds the respective parametric non-leachate MWMP-extractant analyte data set tolerance limit for that analyte, then there is statistically significant evidence that the VZMS well sample is composed of leachate from the landfill or the evaporation pond.

NON-PARAMETRIC TOLERANCE LIMIT FOR NON-LEACHATE MWMP-EXTRACTANT ANALYTE DATA SET

1. Examine the non-leachate MWMP-extractant analyte data set to observe and obtain the maximum value for the data set.

2. Set the non-parametric upper tolerance limit for the non-leachate MWMP-extractant analyte data set to this maximum value obtained in Step 1.

3. Compare each dissolved/total metal analyte and radionuclide analyte obtained for each VZMS well sample, as obtained under Permit Condition 7.3.3, to the non-parametric non-leachate MWMP-extractant analyte data set tolerance limit constructed for each analyte under Step 2.

4. If the VZMS well sample analyte concentration exceeds the respective non-parametric non-leachate MWMP-extractant analyte data set tolerance limit for that analyte, then there is statistically significant evidence that the VZMS well sample is composed of leachate from the landfill or the evaporation pond.

~~accordance with evaluation criteria provided in Permit Part XXX~~ In accordance with Permit Condition 1.10, Table 1-1, the Permittee shall submit to the Secretary 60 days prior to acceptance of the waste the criteria used to assess the representativeness of the sample obtained for the annual sample of the waste stream. The annual analysis shall include, at a minimum, parameters presented in Permit Attachment F1, Table 4-1, *Parameters and Methods for Pre-Acceptance Representative Sample Analysis,* in addition to any parameters included during analysis of the pre-shipment representative sample of the waste stream as discussed in Permit ~~Part~~ Condition 2.5.1, as well as additional parameters identified by the Permittee. If the annual analysis indicates waste stream changes such that the hazardous waste code assignment and/or LDR determination is modified, a new Waste Profile Form shall be requested.

The Permittee shall verify the analysis of each waste stream annually, as part of its quality assurance program, in accordance with Permit Attachment F1, Section 4.4.3.2, *Annual Analysis*, and using methods contained at Permit Attachment F3; or *Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods,* (EPA Publication SW-846, latest edition); methods contained at Permit Attachment ~~D~~ F1, Section 4.7, Waste Analysis. If the Permittee wishes to use an alternative method, the Permittee shall demonstrate to the Secretary that such alternative method is equivalent to the approved method contained in EPA publication SW-846.

2.5.1.a.iv Additional Sampling and Analysis

Additional Sampling and Analysis shall be performed to assess chemical characteristics of wastes in specific management units. Analytical Sampling and analysis for specific management units are presented in Permit Attachment F1, Section 4.5.5, *Additional Analysis for Specific Management Units:*

> Storage units: Wastes managed in the drum storage building, roll-off container storage area, and the liquid waste storage tanks shall undergo pre-acceptance representative sample analysis, annual analysis, and initial and ongoing fingerprint sample analysis as described in Permit Attachment F1, Section 4.5.2, *Waste Analysis Requirements specific to Storage Units.* Ignitability, reactivity, and incompatibility of each waste stream shall be determined in accordance with Permit Attachment F2.

Evaporation Pond: Wastes placed in the Evaporation Pond shall undergo pre-acceptance representative sample analysis and additional analysis on waste removed from the Evaporation Pond to ensure continued LDR compliance as described in Permit Attachment F1, Section 4.5.3, *Waste Analysis Requirements Specific to the Evaporation Pond*. Compatibility, ignitability, and reactivity determination shall also be performed for wastes emplaced in the Evaporation Pond as described in Permit Attachment F2.

Stabilization Tanks: Wastes placed in the Stabilization Tanks shall be characterized to ensure compatibility with tank liner and previous wastes emplaced in the stabilization tanks as described in Permit Attachment F1, Section 4.5.5.4, *Waste Analysis Requirements Specific to the Stabilization Tanks.* This may be accomplished through pre-acceptance representative sample analysis for wastes placed directly into the stabilization tanks, or through analysis performed on waste removed from the Evaporation Pond. A second representative sample of any waste requiring stabilization shall also be collected prior to placement in the landfill and shall be used for bench-scale testing to determine treatability; bench-scale tests will also be conducted as part of representative sample analysis for incoming waste streams that are directly placed in the stabilization tanks. Compatibility, ignitability, and reactivity determination shall also be performed as described in Permit Attachment F2.

Landfill: All waste placed directly into the landfill shall undergo pre-acceptance representative analysis as described in Permit ~~Part~~ Condition 2.5.1.a.i. Waste placed into the landfill from the stabilization ~~tansk~~ tanks shall undergo additional analysis to determine whether it meets LDR standards as described in Permit Attachment F2 and Permit Attachment F1, Section 4.5.5.5, *Waste Analysis Requirements Specific to the Landfill*. In addition to fingerprint analysis performed on all incoming waste (see Permit ~~Part~~ Condition 2.5.1.a.ii), a minimum ~~to~~ of 10 percent of incoming waste that are to be directly landfilled must be sampled to verify conformance with LDR requirements as described in Permit Attachment K, Section 4.5.5.5, *Waste Analysis Requirements Specific to the Landfill.*

2.5.1.a.v Waste Analysis Requirements for Waste Generated On-site

Waste analysis requirements for waste generated On-Site are presented in Permit Attachment F1, Section 4.5.6, *Waste Analysis*

Requirements for Waste Generated On-Site and Permit Attachment(s) XXXXXX (Stephanie/June—We need to discuss if all of these sections will be Attachments--need to insert the correct permit attachments for the following permit application references—Volume I, Sections 2.0, 5.4.2, 6.3.5.2, and 6.3.7; Volume I, Sections 5.2.5 and 5.2.10; Volume II Section 9.1.2; Volume III, Drawing 25, Volume I Section 2.5.2.6, 2.6.2.4, and 5.4.2; volume I, Sections 2.5.2.8, and 6.2.2).

2.5.1.a.vi Compatibility Analysis

The Permittee will ensure that potentially incompatible wastes will not be stored, treated, or disposed of in the same location. The Permittee will perform a compatibility determination on all pre-acceptance representative sample analysis, annual analysis, and additional sampling analysis as described in Permit ~~Parts~~ Conditions 2.5.5.1.a, 2.5.5.1.c, and 2.5.5.1.d, and in Permit Attachment F2.

~~The Permittee shall verify the analysis of each waste stream annually, as part of its quality assurance program, in accordance with Permit Attachment F, Section 4.4.3.2, *Annual Analysis*, and using methods contained at Permit Attachment F, Section 4.5, *Waste Analysis; or Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods*, (EPA Publication SW-846, latest edition); methods contained at Permit Attachment D, Section 4.7, Waste Analysis. If the Permittee wishes to use an alternative method, the Permittee shall demonstrate to the Secretary that such alternative method is equivalent to the approved method contained in EPA publication 846.~~

~~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.~~

2.5.2 Waste Management

Waste managed at the facility must meet the criteria for acceptance and management specified in Permit Attachment F1, Section 4.1, *Criteria for Waste Management at the Facility* which include characterization to acquire all the information that must be known to treat, store or dispose of the waste in accordance with Parts 264 and 268.

2.5.2.a Waste Acceptance from Off-Site Generators

The Permittee shall accept hazardous waste from off-site generators only in accordance with Permit Attachment F1, Sections 4.3, *Pre-Acceptance Procedures for Off-Site Waste*, and 4.4, *Procedures for Incoming Waste Acceptance*.

2.5.2.a.i Waste Profile Form

The Permittee shall acquire a completed Waste Profile Form from the generator for each waste stream and accompanying characterization information as specified in Attachment F1, Section 4.3.1, *Waste Characterization Information Provided by the Generator,* and Permit Attachment F3, *Waste Profile Form*. ~~A~~ In accordance with Permit Condition 1.10, Table 1-1, a new Waste Profile Form ~~must~~ shall be submitted to the Secretary 15 days prior to acceptance of the waste, for each new waste stream and if an existing waste stream is significantly modified such that a new waste stream is created~~ as defined in Permit Part XXX~~. Modification of the Waste Profile Form and associated characterization information requirements is a permit modification as defined in Permit ~~Part XXXXX~~ Condition 1.2.4. The Permittee shall evaluate information provided by the generator; if acceptable knowledge information is included, the Permittee shall evaluate said information in accordance with evaluation criteria provided in Permit ~~Part XXX~~ Condition 1.2.4.

2.5.2.a.ii Representative Sample Analysis and Evaluation

Following Permittee approval of the Waste Profile Form and associated characterization information, the Permittee shall obtain a representative waste stream sample which the Permittee shall submit to an offsite laboratory for analysis.~~ The Permittee shall evaluate the representativeness of the sample in accordance with evaluation criteria provided in Permit Part XXX.~~ The Permittee shall assess these data with respect to Waste Profile Form and characterization information in accordance with Permit Attachment F1, Section 4.3.3, *Representative Sample Analysis and Evaluation*. In accordance with Permit Condition 1.10, Table 1-1, the Permittee shall submit to the Secretary 15 days prior to acceptance of the waste the criteria used to assess the representativeness of the sample obtained for the waste stream. Discrepancy analysis shall include but not be limited to items listed in Permit Attachment F1, Section 4.3.3.1, *Major Discrepancies*, and must include analysis of all elements listed

in Permit Attachment F1, Section 4.3.2, *Paperwork Evaluation.* If a major discrepancy is identified, the Permittee shall require the generator to ~~submission~~ submit ~~of~~ a Sampling ~~and Analysis~~ plan that shall be ~~submitted to~~ documented in the Operating Record within 15 days after receipt and which will address the discrepant information in accordance with Permit Attachment F1, Section 4.3.3, *Major Discrepancies.* The Permittees shall determine whether additional sampling is necessary to ensure that the elements listed in Permit Attachment F1, Section 4.3.3.3, *Additional Waste Acceptance Conditions* are required. ~~in accordance with evaluation criteria provided n Permit Part XXX~~ Any modification to the waste acceptance conditions for any waste stream shall be in accordance with Permit Condition 1.2.4.

2.5.2.b Incoming Waste Acceptance

Incoming waste shipments shall be evaluated in accordance with Permit Attachment F1, Section 4.4, *Procedures for Incoming Waste Acceptance.* If manifest discrepancies or discrepancies noted during visual examination are not resolved within 90 days of identifying the discrepancy, waste will not be accepted.

2.5.2.~~b~~c Other Waste Management Requirements

The Permittee shall ensure that all waste analyses, reports, documentation, notifications, and certifications required under 20.4.1.800 NMAC, incorporating 40 CFR 268.7(a) and 268.7(b), are provided by off-site generators or off-site treatment facilities who ship waste to the Facility.

2.5.3 Sampling Plan

The Permittee shall submit the Sampling Plan specified at Permit Attachment F1, Section 4.6, *Sampling Plan*, to the Secretary 60 days prior to accepting any hazardous waste at the Facility, in accordance with Permit Condition 1.10. The Permittee shall also develop and place into the Operating Record individual sampling and analysis protocols specific to individual waste streams identifying the fingerprint analysis to be used and sampling and analytical requirements prior to acceptance of an individual waste stream as specified in Permit Attachment F1, Section 4.3.4, *Notification and Approval of Waste Shipment.* Sampling methods shall consider EPA approved methodologies included in SW-846; if alternative methods are selected, the Permittee must include these methods in the Sampling Plan with full method description and justification for the Secretary's approval. The Sampling

Plan must specify how sample locations are selected, and how sample types are selected and collected. Additionally, Sampling QA/QC shall be included as a QAPP to include requirements specified in Attachment F1, Section 4.6.3, *Sampling QA/QC*, and shall include additional requirements specified in EPA guidance "Guidance for Quality Assurance Project Plans", EPA QA/G-5, February, 1998. All necessary example forms (e.g. chain of custody) shall be included in the QAPP. The Permittee also shall submit a Health and Safety Plan to the ~~Secterary~~ Secretary **60 days prior to acceptance of waste** as specified in Permit Attachment F1, Section 4.6.3.1, *Training Requirements for Personnel Responsible for Sample Collection*. Standard Operating Procedures developed to support the Sampling Plan shall also be provided to the Secretary **60 days prior to acceptance of waste.**

2.5.4 Laboratory Quality Assurance/Quality Control Plan

The Permittee shall submit the Laboratory Quality Assurance/Quality Control Plan discussed in Permit Attachment F1, 4.7.2 ~~Section 4.9.2,~~ *Facility Laboratory QA/QC Plan*, [Note: Section 4.9 in the new application does not address the QA/QC Plan] to the Secretary 30 days prior to accepting any hazardous waste, in accordance with Permit Condition 1.10.

2.5.5 Quality Assurance Objectives

The Permittee shall review, validate, and verify all analytical data; reconcile analytical results with data quality objectives; satisfy data reporting requirements; and identify, document, and report all nonconformances and operational variances.

2.5.6 Quality Control Checks

The Permittee shall take additional samples as quality control checks as specified at Permit Attachment F1, ~~Section 4.9.2.3~~ Section 4.7.2.3~~,~~ the *Laboratory QA/QC Samples*. [Note: Section 4.9 in the new application does not address the QA/QC Plan.] Upon request, the Permittee shall split samples with NMED.

2.5.7 Disposal of Laboratory Samples

The Permittee shall dispose of on-site laboratory samples with compatible waste batches as specified at Permit Attachment F1.

2.5.8 Contract Laboratory Requirements

The Permittee shall inform each contract laboratory in writing that it shall operate under the waste analysis conditions set forth at Permit Attachment F1 and this Permit.

2.6 SECURITY

The Permittee shall comply with the security provisions specified at Permit Attachment B, *Procedures to Prevent Hazards*, Section 5.1, *Security Procedures to Prevent Hazards*.

2.6.1 Means to Control Entry

Access to the Facility shall be only through a controlled access point that is manned by security guards, as specified at Permit Attachment B, Section 5.1.1, *Barrier and Means to Control Entrance*, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.14(b)(2)(ii).

2.6.2 Barriers

In order to prevent unknowing entry and minimize the possibility for unauthorized entry of persons, livestock, or wildlife which may enter the active portion of the Facility, the Permittee shall maintain a barbed wire fence around the active portion of the Facility as specified at Permit Attachment B, Section 5.1.1, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.14(b)(2)(i).

2.6.3 Warning Signs

Warning signs in English and Spanish, e.g., "DANGER, NO UNAUTHORIZED PERSONNEL, KEEP OUT", and "PELIGRO, NO PERMITIDA LA ENTRADA SIN AUTORIZACION", shall be posted at the road entry point to the Facility and every 50 feet along the perimeter fence, as specified at Permit Attachment B, Section 5.1.2, *Warning Signs*. These bilingual signs shall be legible from a distance of 25 feet and shall also be visible from any approach to the Facility. In addition, the warning signs shall be posted at each entrance to an active portion of the Facility, and in sufficient numbers to be seen from any approach to each active portion, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.14(c).

2.7 GENERAL INSPECTION REQUIREMENTS

2.7.1 Inspection Frequencies

2.7.1.a Inspection Schedules

The Permittee shall implement the Inspection Schedules contained at Permit Attachment D, *Inspection Procedures*, Attachment D1, *Inspection Schedules and Checklists*, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.15(b).

2.7.1.b Additional Inspection Requirements

The Permittee shall inspect areas subject to spills, such as loading and unloading areas, daily when in use, in compliance with 20.1.500 NMAC, incorporating 40 CFR 264.15(b)(4).

2.7.1.c Emergency Equipment Inspection Log Forms

The Permittee shall develop inspection forms for each unit which address the emergency equipment stored at that unit. The inspection forms shall indicate the frequency of inspections and shall indicate the time and date, and be signed by the inspector. The form must be submitted to the Secretary 30 days prior to initiation of operations.

2.7.2 Inspection Logs and Checklists

The Permittee shall use the inspection logs or checklists contained at Permit Attachments D and D1. The Permittee shall ensure that inspectors record the date and time of the inspection, the status of items inspected (items not inspected shall be marked "NI"), the date and nature of any repairs or other remedial actions needed, the date and nature of any repairs or other remedial actions taken, and sign the checklist, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.15(b).

2.7.3 Remedial Action

The Permittee shall remedy any deterioration or malfunction of equipment or structures which an inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard, as specified at Permit Attachment D, Section 5.2.1.2, *Remedial Action*, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.15(c). When the hazard is imminent or has already occurred, the Permittee shall take remedial action immediately.

2.7.4 Recordkeeping - Inspection Logs

The Permittee shall maintain all inspection logs in the Operating Record in accordance with Permit Condition 2.12.1.1, except that inspection logs need be retained only for a period of three years, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.15(d) and 264.73(b)(5).

2.8 PERSONNEL TRAINING

The Permittee shall maintain a Personnel Training Program as specified at Permit Attachment E, *Personnel Training and Records*, Section 7.0, *Personnel Training*, in compliance with 20.4.1.900 NMAC, incorporating 40 CFR 270.14(b)(12) and 20.4.1.500 NMAC, incorporating 40 CFR 264.16.

2.8.1 Personnel Training Requirements

The Permittee shall train all persons involved in the management of hazardous waste in procedures relevant to the positions in which they are employed, as specified at Permit Attachment E~~F~~, Section 4.8.2.1, *Training ~~requirements~~ Requirements for ~~personnel~~ Personnel ~~responsible~~ Responsible for ~~sampling~~ Sampling ~~collection~~Collection*, [Note: This section of the WAP has been removed from the final application. Option: add the old section 4.8.2.1 into Permit Attachment E; make it E1] and Permit Attachment E, *Personnel Training ~~Requirements~~ and Records*, and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.16.

2.8.1.a Training for Emergency Coordinator, Alternate Emergency Coordinator and all Waste Handlers and Maintenance Personnel Involved in Incident Response

The Permittee shall submit to the Secretary, 60 days prior to initiation of operations, a detailed training outline which includes both classroom and on-the-job (OTJ) training for on-site individuals involved in incident response. The classroom training shall be in addition to the general 8-hour training indicated in Section 7.2.1.1 of Permit Attachment E.

The classroom training shall address all emergency equipment specified in Attachment C, including in-depth classroom training on the use, maintenance, operations, purpose and limitations of all equipment in Attachment C.

- fire specified control equipment
- personnel protective equipment
- spill control/decontamination equipment
- communication equipment
- safety equipment.

OJT training must address the same topics as above, and must be provided to all employees involved in incident response. These minimum OTJ training sessions must be documented by both the employee and the supervisor by signing and dating a form. The form must also indicate the length of time spent on OTJ. The signed forms must be maintained as part of the Operating Record, in accordance with Permit Condition 2.8.3.

2.8.1.b Training for Laboratory Personnel

The Permittee shall submit to the Secretary, 60 days prior to initiation of operations, a detailed training outline which includes both classroom and OTJ training for Laboratory Personnel. The specific classroom training received by laboratory personnel shall be in addition to the general 8-hour training indicated in Section 7.2.1.1 of Permit Attachment E.

The laboratory specific classroom training shall address:

- proper analytical methods
- laboratory QA/QC
- laboratory safety
- calibration of laboratory equipment and environmental monitoring equipment
- basic chemical concepts
- toxicological concepts

On-the-job training must address the same topics as above, and must be provided to all employees involved in laboratory analysis of hazardous waste. These minimum OTJ training sessions must be documented by both the employee and the supervisor by signing and dating a form. The form must also indicate the length of time spent on OTJ. The signed form must be maintained in the Operating Record in accordance with Permit Condition 2.8.3.

2.8.1.c Waste Handlers and Maintenance Personnel

The Permittee shall submit to the Secretary, 60 days prior to initiation of operations, a detailed training outline which includes both classroom and OTJ training for waste handlers and maintenance personnel. The specific classroom training received by waste handlers and maintenance personnel shall be in addition

to the general 8-hour training specified in Section 7.2.1.1 of Permit Attachment E.

- proper field sampling and field testing procedures (waste handler only)
- heavy equipment operations
- safe drum handling and safe roll-off container handling
- segregation of incompatible waste
- basic chemical concepts
- safe loading and unloading of waste
- tool safety (maintenance personnel)

On-the-job training must address the same topics as above, and must be provided to all employees involved in waste handling and maintenance. These minimum OTJ training sessions must be documented by both the employee and the supervisor by signing and dating a form. The form must also indicate the length of time spent on OTJ. The signed form must be maintained in the Operating Record in accordance with Permit Condition 2.8.3.

2.8.2 Personnel Training Procedures

The Personnel Training Program shall include the material and procedures outlined at Permit Attachment E, Section 7.2, *Training Content and Frequency*, and otherwise comply with the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264.16(a)(3).

The Permittee shall ensure that Facility personnel successfully complete the Personnel Training Program within six months after their employment at the Facility, or to their assignment to a new position at the Facility, whichever is later. Employees shall not work in unsupervised positions until they have successfully completed the training requirements for their positions, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.16(b).

Facility personnel shall take ~~Part~~ part in an annual review of the initial training required for their positions, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.16(c).

2.8.3 Recordkeeping - Personnel Training Documents and Records

The Permittee shall maintain training documents and personnel training records, as specified at Permit Attachment E, Section 7.3, *Record Keeping*, and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.16(d). Training documents and personnel training records shall be kept until completion of closure or for at least three years from the date an employee last worked at the

Facility, whichever is earlier, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.16(e).

2.9 SPECIAL PROVISIONS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE

2.9.1 Precautions

The Permittee shall ~~handle~~ manage ignitable, reactive, or incompatible wastes as specified at Permit Attachment B, *Procedures to Prevent Hazards*, Section 5.5, *Precautions to Prevent Ignition or Reaction of Ignitable, Reactive, or Incompatible Wastes*, and shall otherwise meet the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264.17(a) and ~~264.17~~(b).

2.9.2 Recordkeeping - Precautions for Ignitable, Reactive, or Incompatible Waste

The Permittee shall document compliance with Permit Condition 2.9.1 in the Operating Record, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.73(a)(3).

2.10 PREPAREDNESS AND PREVENTION

2.10.1 Required Equipment

At a minimum, the Permittee shall maintain at the Facility the equipment identified at Permit Attachment B, ~~Appendix~~ Attachment B1, *Emergency Equipment*, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.32.

2.10.2 Testing and Maintenance of Equipment

The Permittee shall inspect the monitoring equipment, safety and emergency equipment, security devices, operating and structural equipment identified at Permit Attachment B, Attachment B1, to detect any malfunctions and deteriorations, operator errors, and discharges, as specified at Permit Attachment D, *Inspection Procedures*, Section 5.2.8, *Safety and Emergency Response Equipment Inspection Procedures*, in order to assure its proper operation in time of emergency, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.15(b).

2.10.3 Access to Communications or Alarm System

The Permittee shall maintain access to the communications or alarm system as specified at Permit Attachment B, *Procedures to Prevent Hazards,* Section 5.3, *Preparedness and Prevention Procedures*, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.34.

2.10.4 Roadways

The Permittee shall maintain roadways within the Facility as specified at Permit Attachment L, *Engineering Report and Design,* Section 2.1.3, *Facility Traffic Plan*, to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment in an emergency.

2.10.5 Arrangements with Local Authorities

The Permittee shall maintain preparedness and prevention arrangements with State and local authorities, contractors, and other governmental agencies, at a minimum as specified at Permit Attachment C, *Contingency Plan*, Sections 6.3.1, *Life-Threatening Situations*, and 6.3.4, *Off-Site Notification and Evacuation Criteria*, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.37(a) and 264.52(c). The Permittee shall maintain these documents at appropriate locations at the Facility.

2.10.6 Notification of Agreements with Local Authorities

The Permittee shall submit signed copies of the preparedness and prevention agreements with local authorities listed at Permit Attachment B, and Attachment ~~Appendix~~ B2, *Cooperating Local Authorities*, or documentation of refusal to enter into preparedness and prevention agreements, to the Secretary 30 days prior to initiation of operations at the Facility in accordance with Permit Condition 1.10.

If a local authority with which the Permittee has an agreement terminates the agreement, the Permittee shall document the termination in the Operating Record, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.37(b). The Permittee shall provide a copy of this documentation and alternative emergency response arrangements to the Secretary within 15 days.

2.10.7 Water for Emergencies

To ensure that sufficient water for emergencies is available, the Permittee shall submit to the Secretary copies of the water rights agreement(s) obtained from the State Engineer Office as specified at Permit Attachment B, Section 5.4.4, *Water Supply Protection*, before initiation of operations at the Facility, in accordance with Permit Condition 1.10.

2.11 CONTINGENCY PLAN

2.11.1 Implementation of Plan

The Permittee shall immediately implement the Contingency Plan, Permit Attachment C, whenever there is a fire, explosion, or release of hazardous waste or hazardous constituents which could threaten human health or the environment, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.51(a). The Permittee shall implement the Contingency Plan in compliance with all the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264.51(b).

If the Permittee implements the Contingency Plan as a result of a spill or release to the environment and after 30 calendar days the Permittee has not been able to remove all contaminated soil or water to appropriate action levels, in accordance with Permit Condition 10.2, the Permittee shall submit an Investigation Work Plan specifying how the nature and extent of the release will be identified, in accordance with either Permit Condition 10.3.6 or 11.5.1.

2.11.2 Copies of the Contingency Plan

The Permittee shall maintain copies of the Contingency Plan and all revisions and amendments to the Contingency Plan at all document locations throughout the Facility. The Permittee shall also submit a copy of the Contingency Plan and current revisions and amendments thereto to all federal, State, and local entities with which the Permittee has preparedness and prevention arrangements, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.53. As a part of the submittal to all federal, state, and local entities, the Permittee must submit Permit Attachment A, the General Facility Description and Information.

The Permittee shall submit all revisions and amendments to the Plan to the Secretary before implementation of such revisions and amendments.

2.11.3 Amendments to Plan

The Permittee shall review and immediately amend, if necessary, the Contingency Plan in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.54.

2.11.4 Emergency Coordinator

A trained Emergency Coordinator (EC) or an alternate EC, as identified at Permit Attachment ~~B~~C, Section 6.1, *General Responsibilities of the Emergency Coordinator*, shall be available 24 hours a day seven days a week in case of an emergency. The EC or alternate EC shall be thoroughly familiar with the Contingency Plan and shall have the authority to commit the resources needed to implement the Contingency Plan, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.55.

In the event of an imminent or actual emergency, the EC shall implement the emergency procedures specified at 20.4.1.500 NMAC, incorporating 40 CFR 264.56~~)~~.

2.11.5 Updated Contingency Plan

The Permittee shall submit an updated Contingency Plan to the Secretary for approval at the time of Facility certification, as specified at Permit Attachment C, Section 6.0, and in accordance with Permit Condition 1.10. The updated Contingency Plan shall include, at a minimum, the following:

2.11.5.a List of Emergency Coordinators

The Permittee shall submit to the Secretary a list of the names, addresses, and phone numbers of all persons qualified to act as ECs ~~at the time of Facility certification~~ 15 days prior to initiation of operations in accordance with Permit Condition 1.10, and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.52(d).

This list shall be inserted at Permit Attachment C, ~~Appendix~~ Attachment C1, *Emergency Coordinators*.

The Permittee shall inform the Secretary in writing of changes to the list of emergency coordinators and telephone numbers within 15 calendar days from the date of the changes, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.52(d).

2.11.5.b Evacuation Plan

The Permittee shall include in the updated Contingency Plan a finalized, building- or unit-specific evacuation plan for Facility personnel where there is a possibility that evacuation could be necessary. This plan shall describe evacuation routes, and alternate evacuation routes in cases where the primary routes could be blocked by releases of hazardous waste or fires. The plan shall include a clear map of the evacuation routes [20.4.1.500 NMAC, incorporating 40 CFR 264.52(f)].

This plan shall be inserted at Permit Attachment C, ~~Appendix~~ Attachment C2, Evacuation Plans; and

2.11.5.c Procedures in Case of Surface Impoundment Failure

The Permittee shall include in the updated Contingency Plan a written procedure, as specified at Permit Attachment C, Section 6.3.5.3, *Evaporation Pond Failure Control Procedure*, for the use of temporary double-lined ponds, temporary double-lined bladders, temporary portable double-lined tanks, or tanker trucks to allow storage capacity during a major evaporation pond repair effort in the case of pond failure.

2.11.5.d List of Satellite Accumulation Areas and 90-Day Storage Areas

The Permittee shall submit to the Secretary a list and location map of all satellite and 90-day accumulation areas at the Facility as specified at Permit Attachment C, Section 6.5, *Documents to be Maintained Onsite as Part of the Permit*, in accordance with Permit Condition 1.10. [Note: Legal department should be consulted as to where you can have a condition that addresses non-permitted units.]

This list and map shall be revised and submitted to the Secretary as necessary.

2.11.5.e Decontamination of Personnel and Equipment

The Permittee shall include in the updated Contingency Plan a description of the procedures which address the decontamination of personnel and equipment during and after an emergency. The procedure shall address the establishment of a personnel decontamination zone, removal of PPE, and procedures used to

ensure that contaminants are not spread, in accordance with 20.4.1.500 NMAC, incorporating 40 CFR 264.

2.11.5.f Loss of Electrical Power in the Stabilization Process Building

The Permittee shall maintain a dedicated emergency electrical generator capable of supplying sufficient electrical power to the exhaust ventilator system in the Stabilization Process Building to avoid the build up of particulates, dust fumes, and toxic gases. During a power outage, the Stabilization Process Building shall be evacuated, and the Permittee shall stop receipt of waste to the stabilization building until such time as electrical power is restored.

2.11.5.g Emergency Response Team Members

The Permittee shall submit to the Secretary a list of the names and qualifications of all individuals qualified as members of the on-site emergency response team discussed in Permit Attachment B, Procedures to Prevent Hazards, Section 5.4.6. This list shall be provided to the Secretary 15 days prior to initiation of operations at the site.

2.11.6 Reporting and Recordkeeping - Contingency Plan Implementation

Whenever the Contingency Plan is implemented, the Permittee shall note the time, date, and details of the incident in the Operating Record and submit a written report to the Secretary within 15 days as specified at Permit Attachment C, Section 6.4.2, *Required Reports and Notification*, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.56(j).

2.12 RECORDKEEPING AND REPORTING

2.12.1 Recordkeeping Requirements

The Permittee shall maintain at the Facility all the records, data, certifications, and other information listed at Table 2-2, *Recordkeeping Requirements*. Records kept shall include, but are not limited to, the following:

2.12.1.a Operating Record

The Permittee shall maintain a written Operating Record at the Facility in compliance with this Permit and 20.4.1.500 NMAC, incorporating 40 CFR 264.73. The Operating Record shall be kept until final closure of the Facility is approved by the Secretary, except as noted at Permit Conditions 2.7.4, 2.8.3, 2.12.1.d, 2.12.1.f, 2.12.1.g~~.i~~, 2.12.1.i, ~~2.15.2.b, 2.15.3.b,~~ 5.7.1.d, and 5.7.1.e.

The Operating Record includes, but is not limited to, the information required under Permit Conditions 2.12.1.b through 2.12.1.~~j~~l~~:~~.

2.12.1.b Required Notification to Off-Site Generators

The Permittee shall keep a copy of the written notice required at Permit Condition 2.5 in the Operating Record, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.12(b)~~;~~.

2.12.1.c Generator Notifications and Certifications

The Permittee shall keep copies of the notices, and the certifications and demonstrations if applicable, required of the generator or the Permittee, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.73(b)(11) through ~~264.73(b)~~(16)~~;~~.

2.12.1.d Manifest R~~r~~ecords

The Permittee shall retain at the Facility a copy of each manifest received from an off-site generator of hazardous waste accepted at the Facility for a period of at least three years, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.71 ~~2~~(b)(5).

2.12.1.e Waste A~~a~~nalysis for Waste Acceptance

The Permittee shall maintain waste analysis records and copies of all certifications, demonstrations, and other documents relevant to waste analyses required for waste acceptance (including both pertinent Facility records and records from off-site generators) in the Operating Record, in compliance with 20.4.1.500 ~~40~~ NMAC, incorporating CFR 264.73(b)(3), and 20.4.1.800 NMAC, incorporating 40 CFR 268.4(a)~~6~~ and 268.7.

2.12.1.f Recordkeeping - 40 CFR 264, Subpart BB Exemption

The Permittee shall record in a log the information needed to determine exemption, in accordance with Permit Condition ~~2.15.3.a~~ 2.12.2.d, from compliance with the requirements of 20.4.1.500 NMAC, incorporating 40 ~~cFR~~ CFR 264.1064(k). The documentation to determine exemption shall be kept with or made readily available with the Operating Record for a period of three years.

Alternatively, the Permittee may elect to comply with this recordkeeping requirement by maintaining documentation required under a New Source Air Emissions Permit, in compliance with 20.4.1.500 NMAC~~<~~, incorporating 40 CFR 264.1064(m).

2.12.1.g Recordkeeping - 40 CFR 264, Subpart CC Exemption

The Permittee shall record in a log kept in the Operating Record the information needed to determine exemption, in accordance with Permit Condition ~~2.15.3.b~~ 2.12.2.d, from compliance with the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264, Subpart CC, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1089(f). The documentation to determine exemption shall be kept with or made readily available with the Operating Permit for a period of at least three years.

Alternatively, the Permittee may elect to demonstrate compliance with this requirement by maintaining documentation required under a New Source Air Emission Permit, to the extent that the documentation required under a New Source Air Emissions Permit duplicates the documentation required under this Permit Condition, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR ~~264.089~~ 264.1089(h).

2.12.1.h Waste Stream Tracking

Information on each hazardous waste stream (including underlying hazardous constituents) managed at the Facility shall be recorded in the Waste Tracking System described at Permit Attachment F1, Section 4.~~10~~8, *Waste Tracking*, and maintained in the Operating Record or at another location approved by the Secretary until completion of post-closure care has been approved by the Secretary.

The information to be maintained shall describe the waste, the hazard characteristics, the basis for hazard designation, and the date deposited in the Landfill, and shall include the laboratory

report results (if chemical analysis is used) detailing the chemical and physical analysis of the waste. The information provided for each waste stream shall be complete for each movement of the waste from acceptance through storage, treatment, and disposal at the Facility, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.73(b)(1) and 40 CFR 264, Appendix I.~~;~~

2.12.1.i Waste Minimization Program

The Permittee shall annually by December 1 for the previous year ending September 30, enter into the Operating Record a certified statement specifying that the Permittee has a program in place, in accordance with Permit Condition 2.13, to reduce the volume and toxicity of hazardous wastes generated by the Facility's operation to the degree determined by the Permittee to be economically practicable; and the proposed method of treatment, storage, or disposal is that practicable method currently available to the Permittee which minimizes the present and future threat to human health and the environment, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.73(b)(9).

A current description of the program shall also be maintained in the Operating Record.

2.12.1.j Monitoring Records

2.12.1.j.i Monitoring I~~i~~nformation

The Permittee shall retain records of all monitoring information, including all calibration and maintenance records, and all original strip chart recordings for continuous monitoring instrumentation, for a period of at least three years from the date of the sample, measurement, or record, in compliance with 20.4.1.900 NMAC, incorporating 40 CFR 270.30(j)(2). This period may be extended by the Secretary at any time.

The Permittee shall retain monitoring records for the Leachate Detection and Removal System (LDRS) and Vadose Zone Monitoring System (VZMS) and associated water level elevations until the completion of Surface Impoundment closure is approved by the Secretary, in compliance with 20.4.1.500 ~~NMACk~~ NMAC, incorporating 40 CF~~S~~R 264.226(d)(1).

The Permittee shall retain records for the Landfill Leak Collection and Removal System (LCRS), LDRS, and VZMS until the completion of post-closure care for the Landfill is approved by the Secretary, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.303(c)(1).

2.12.1.j.ii Record I~~i~~nformation

Records for monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the individual(s) who perform the sampling or measurements;
- the date(s) analyses are performed;
- the individual(s) who perform the analyses;
- the analytical techniques or methods used; and
- the result of such analyses.

2.12.1.~~i~~k Corrective Action Records

For a unit undergoing corrective action under Permit Part ~~10~~ 9, the Permittee shall retain, until completion of the corrective action has been approved by the Secretary, records of all monitoring information, waste analyses, and all other pertinent data and information used to prepare the appropriate documents required for the action by this Permit.

2.12.1.~~j~~l Other Records

The Permittee shall retain records of all other data used to prepare documents required by this Permit, copies of all other reports and records required by this Permit, and records of all data used to complete the Permit Application for a period of three years from the date of the report, record, certification, or application, in compliance with 20.4.1.900 NMAC, incorporating 40 CFR 270.30(j)(2).

2.12.2 Reporting Requirements

In addition to the documents, certifications, and other information required before the initiation of operations at the Facility under Permit Condition 1.10, the Permittee shall submit to the Secretary as applicable during the operating life and closure and post-closure care periods of the Facility all the reports, documents, certifications, notifications, and other submittals, as applicable, required at Table 2-3, *Reporting/*

Certification/Notification Requirements. Reports which shall be submitted include, but are not limited to, the following:

2.12.2.a Biennial Report

The Permittee shall submit to the Secretary a single copy of the biennial report by March 1 of each even-numbered year. The biennial report shall include the information required at 20.4.1.500 NMAC, incorporating 40 CFR 264.75. The biennial report shall include a copy of the annual certified statement regarding the Waste ~~Minimuzation~~ Minimization Program required at Permit Condition 2.13, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.75(h), (i), and ~~40 CFR 264.75~~(~~i~~j).

2.12.2.b Quarterly Report

The Permittee shall submit a quarterly report on the status of operations for the previous three months at the Facility to the Secretary. The report shall be due 60 days after the reporting period has ended. The report shall provide an update on activities carried out during the reporting period, including:

- ~~Quantities~~ quantities of hazardous wastes stored, treated, and/or disposed in the Landfill at the Facility (including waste generated on-site), by EPA hazardous waste code;
- ~~A~~ a discussion of spills and releases which have occurred during the reporting period, and subsequent actions taken;
- ~~Any~~ any variances or discrepancies from this Permit; and
- ~~Monitoring~~ monitoring results, in compliance with 20.4.1.900 NMAC, incorporating 40 CFR 270.30(1) and 40 CFR 270.31(c).

The report shall also include a discussion of planned activities for the upcoming three-month period, including any necessary changes or modifications in operating activities approved by this Permit.

2.12.2.c Waste Minimization Program Certification

The Permittee shall submit a copy of the annual certified statement regarding the Waste Minimization Program required at Permit Condition 2.13 to the Secretary by December 1 for the

previous year ending September 30, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.75(i).

2.12.2.d Reporting - Noncompliance with the 40 CFR 264, Subpart BB and Subpart CC Exemption

The Permittee shall report to the Secretary each occurrence when hazardous waste is placed in a waste management unit in noncompliance with the exemption, as specified at Permit Attachment K, *40 CFR Subpart AA, BB, and CC Regulations*, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1090(a).

2.13 WASTE MINIMIZATION PROGRAM

The Permittee shall institute a program, as specified at Permit Attachment A, Section 9.0, *Waste Management*, to reduce the volume and toxicity of hazardous wastes generated by the Facility's operation to the degree determined by the Permittee to be economically feasible. Suggested criteria for the program include:

(1) ~~Any~~ any written policy or statement that outlines goals, objectives, and/or methods for source reduction and recycling of hazardous waste at the Facility;

(2) ~~Any~~ any employee training or incentive program designed to identify and implement source reduction and recycling opportunities;

(3) ~~Any~~ any source reduction and/or recycling measures implemented in the last five (5) years or planned for the near future;

(4) ~~An~~ an itemized list of the dollar amounts of capital expenditure (plant and equipment) and operating costs devoted to source reduction and recycling of hazardous waste;

(5) ~~Factors~~ factors that have prevented implementation of source reduction and/or recycling;

(6) ~~Sources~~ sources of information on source reduction and/or recycling received at the

Facility, e.g., local government, trade associations, suppliers;

(7) ~~An~~ an investigation of additional waste minimization efforts which could be implemented at the Facility. This investigation would analyze the potential for reducing the quantity and toxicity of each waste stream through recycling and all other appropriate means. The analysis would include an assessment of the technical feasibility, cost, and potential waste reduction for each option;

(8) ~~A~~ a flow chart or matrix detailing all hazardous wastes produced by quantity, type, and building or area;

(9) ~~A~~ a demonstration of the need to use those processes which produce a particular hazardous waste due to a lack of alternative processes or available technology that would produce less hazardous waste;

(10) ~~A~~ a description of the waste minimization methodology employed for each related process at the Facility which shows whether source reduction or recycling is being employed; and

(11) ~~A~~ a description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years.

2.14 TRANSPORTATION OF HAZARDOUS WASTE

2.14.1 Transportation of Hazardous Waste to the Facility

2.14.1.a Manifest Requirements

The Permittee shall comply with the manifest requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264.71~~)~~.

2.14.1.b Manifest Discrepancies

Upon discovering a significant discrepancy, as identified at Permit Attachment ~~D~~F2, Section 4.3, *Pre-Acceptance Procedures for Off-Site Waste*, between the quantity or type of waste designated

on the manifest and the quantity or type of waste actually received at the Facility, the Permittee shall attempt to reconcile the discrepancy with the generator or transporter. If the discrepancy is not resolved within 15 days after receiving the waste, the Permittee shall immediately submit to the Secretary a letter describing the discrepancy and attempts to resolve it, and a copy of the manifest [20.4.1.500 NMAC, incorporating 40 CFR 264.72(b)].

2.14.1.c Unmanifested Waste Report

If the Permittee accepts for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest, and if the waste is not excluded from the manifest requirements by the conditionally exempt small quantity generator exclusions contained at 20.4.1.500 NMAC, incorporating 40 CFR 261.5~~)~~, then the Permittee shall prepare and submit to the Secretary a single report within 15 days after receipt of the waste. The unmanifested waste report shall be submitted in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.76~~)~~.

2.14.1.d Compliance with Federal, State, and Local Regulations

The Permittee shall comply with all U.S. Department of Transportation (DOT), State, and local regulatory standards which apply to persons transporting hazardous waste within the United States and the State of New Mexico. [20.4.1.500 NMAC, incorporating 40 CFR 263]

The Permittee shall comply with any local restrictions established for transportation of hazardous waste in affected communities.

2.14.2 Transportation of Hazardous Waste On-Site at the Facility

2.14.2.a Traffic Control Procedures

The Permittee shall transport hazardous waste on-site using the traffic control procedures and traffic patterns specified at Permit Attachment A, Section 1.4, *Traffic Patterns*. All vehicles carrying hazardous waste shall use only the entrance, access, and perimeter roads depicted at Permit Attachment L, *Engineering Report and Drawings,* Drawing No. 26 (2 of 2).

2.14.2.b Dust Control Procedures

2.14.2.b.i Dust Ssuppression

The Permittee shall not use waste or used oil or any other material which is contaminated with dioxins, polychlorinated biphenyls (PCBs), or any other hazardous waste, other than a waste identified solely on the basis of ignitability, for dust suppression or road treatment, in compliance with 20.4.1.700 NMAC, incorporating 40 CFR 266.23(b).

2.14.2.b.~~i~~ii Other Ddust Ceontrol Pprocedures

The Permittee shall apply the dust control procedures specified at Permit Attachment A, Section 2.5.1.7, *Wind Dispersal Control Procedures*, to control the dust generated by the vehicles carrying hazardous waste at the Facility.

2.14.2.c Decontamination of Equipment and Vehicles

The Permittee shall ensure that any vehicles or equipment which have come in contact with hazardous waste in any storage or processing area and/or which have been in contact with hazardous waste in any active landfill cell have been sufficiently decontaminated prior to their further movement to prevent contamination of uncontaminated areas of the Facility. Wash water generated shall be collected, tested, and treated, and disposed of as specified at Permit Attachment F1, Section 4.5.6, *Waste Analysis Requirements for Waste Generated On-Site*.

2.15 AIR EMISSION STANDARDS

2.15.1 Air Quality Permit

The Permittee shall obtain a New Source Air Emissions Permit from NMED or documentation that the Facility does not need to obtain a New Source Air Emissions Permit before the initiation of operations in accordance with Permit Condition 1.10.

2.16 GROUND WATER PROTECTION

The Permittee shall submit a Notice of Intent to Discharge (NOI) to NMED for the Surface Impoundment, the ~~Stormwater~~ stormwater ~~Retention~~ retention ~~Basin~~basin, ~~and~~ the stormwater collection basin and the contaminated water retention basin at the Landfill,

and obtain a permit to discharge or documentation that a permit to discharge is not required before the initiation of operations in accordance with Permit Condition 1.10.

2.17 GENERAL CLOSURE REQUIREMENTS

[Note: This section has been modified in accordance with Stephanie Kruse' e-mail dated October 27, 2000.] The Permittee shall close the Facility, or any permitted unit at the Facility, as specified at Permit Attachment O, *Closure Plan*, and in compliance with Permit Part 8 and 20.4.1.500 NMAC, incorporating 40 CFR 264.110 through 264.116.

~~2.17.1 Performance Standard~~

~~The Permittee shall close the Facility, or any permitted unit in the Facility, in accordance with the performance standard contained at 20.4.1.500 NMAC, incorporating 40 CFR 264.111.~~

~~2.17.2 Amendment to Closure Plan~~

~~The Permittee shall amend the Closure Plan whenever necessary, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.112(c).~~

~~2.17.3 Notification of Closure~~

~~The Permittee shall notify the Secretary in writing at least 45 days prior to the date on which the Permittee expects to begin closure of any storage or treatment unit, or 60 days prior to the date on which the Permittee expects to begin closure of the Surface Impoundment or Landfill, or final closure of the Facility, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.112(d)(1).~~

~~2.17.4 Time Allowed for Closure~~

~~After receiving the final volume of hazardous waste, the Permittee shall treat, remove from a storage or treatment unit undergoing closure, and dispose of on-site in the Landfill or off-site in an appropriate disposal facility, all hazardous waste, and shall complete closure activities in accordance with the schedules specified at Permit Attachment O, Appendix O1, *Schedule for Closure*, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.112(b)(6).~~

~~2.17.5 Disposal or Decontamination of Equipment, Structures, and Soils~~

~~The Permittee shall decontaminate and/or dispose of all contaminated equipment, structures, and soils as specified at Permit Attachment O, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.114.~~

~~2.17.6 Certification of Completion of Closure~~

~~No later than 60 days after completion of closure for each permitted unit, or for completion of final closure for the Facility, the Permittee shall submit to the Secretary a certification signed by the Permittee and an independent professional engineer registered in New Mexico that the unit undergoing closure or the Facility, as applicable, was closed in accordance with Permit Attachment O and this Permit, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.115.~~

~~2.17.7 Survey Plat~~

~~The Permittee shall submit a survey plat no later than the date of submission of certification of closure of the Landfill to the local zoning authority, or the authority with jurisdiction over local land use, and to the Secretary, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.116.~~

2.18 GENERAL POST-CLOSURE CARE REQUIREMENTS

The Permittee shall conduct post-closure care for the Landfill as specified at Permit Attachment P, *Post-Closure Care Plan*, and in compliance with Permit Part 8 and 20.4.1.500 NMAC, incorporating 40 CFR 264.117 through 264.120, and this Permit.

~~2.18.1 Post-Closure Care Period~~

~~The Permittee shall begin post-closure care for the Landfill after the completion of closure of the Landfill has been approved by the Secretary, and shall continue for 30 years after that date. The Secretary, at any time during the post-closure period, may shorten the post-closure care period if he or she finds that the reduced period is sufficient to protect human health and the environment, or may extend the post-closure period if he or she finds that the extended period is necessary to protect human health and the environment, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.117(a)(2).~~

~~2.18.2 Post-Closure Care Security~~

~~The Permittee shall maintain security at the Facility during the post-closure care period, as specified at Permit Attachment P, Section 8.2.1, *Security Systems*, and as required to maintain the integrity of the cover, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.117(b).~~

~~2.18.3 Amendment to Post-Closure Care Plan~~

~~The Permittee shall amend Permit Attachment P in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.118(d).~~

~~2.18.4 Post-Closure Care Notices~~

~~2.18.4.a Hazardous Waste Records~~

~~No later than 60 days after certification of closure of the Landfill, the Permittee shall submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Secretary, records of the type, location, and quantity of hazardous waste disposed within each cell of the Landfill in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.119(a).~~

~~2.18.4.b Notation on Property Deed~~

~~Within 60 days of the closure certification of the Landfill required at Permit Condition 2.17.6, the Permittee shall:~~

~~2.18.4.b.i Record of notation~~

~~Record a notation on the deed to the Facility property, or on some other instrument which is normally examined during a title search, that shall in perpetuity notify any potential purchaser that the land has been used to manage hazardous wastes, and shall also record the other information required under 20.4.1.500 NMAC, incorporating 40 CFR 264.119(b)(1); and~~

~~2.18.4.b.ii Certification of deed notation~~

~~Submit a certification to the Secretary that the notation required under Permit Condition 2.18.4.b.i has been recorded, along with a copy of the document in which the notation has been placed, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.119(b)(2).~~

~~2.18.5 Certification of Completion of Post-Closure Care~~

~~No later than 60 days after completion of the established post-closure care period for the Landfill, the Permittee shall submit to the Secretary a certification signed by the Permittee and an independent professional engineer registered in New Mexico that the post-closure care period was performed as specified at Permit Attachment P and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.120 and this Permit. Documentation supporting the certification shall be furnished to the Secretary upon request until the Permittee is released by the Secretary from the financial assurance requirements for post-closure care required under Permit Condition 2.20.~~

~~2.19 COST ESTIMATES FOR CLOSURE AND POST-CLOSURE CARE~~

~~2.19.1 Most Recent Cost Estimates~~

~~The Permittee's most recent cost estimate for closure and post-closure care, prepared in accordance with 20.4.1.500 NMAC, incorporating 40 CFR 264.142 and 264.144, respectively, are specified at Permit Attachment O, Appendix O2, *Cost Estimate for Closure*, and Permit Attachment P, Appendix P1, *Cost Estimate for Post-Closure Care*, respectively. When closure or post-closure care cost estimates are adjusted or revised in accordance with Permit Conditions 2.19.2 and 2.19.3, respectively, the Permittee shall submit these adjusted or revised cost estimates to the Secretary by the anniversary date of the establishment of the financial instrument(s) used to comply with Permit Condition 2.20.~~

~~2.19.2 Adjustment for Inflation~~

~~The Permittee shall adjust the closure and post-closure care cost estimates for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with Permit Condition 2.20, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.142(b) and 264.144(b).~~

~~2.19.3 Cost Estimate Revisions~~

~~Whenever the Closure Plan or Post-Closure Care Plan is modified, the applicable cost estimate shall be revised if the change increases the cost of closure or post-closure care, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.142(c) and 264.144(c), respectively.~~

~~2.19.4 Recordkeeping - Cost Estimates for Closure and Post-Closure Care~~

~~The Permittee shall keep at the Facility the latest closure and post-closure care cost estimates during the operating life of the Facility, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.142(d) and 264.144(d).~~

~~2.20 FINANCIAL ASSURANCE FOR CLOSURE AND POST-CLOSURE CARE~~

~~The Permittee shall demonstrate continuous compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.143, 264.145, and 264.146 by providing documentation of financial assurance, in at least the amount of the cost estimates required by Permit Condition 2.19, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.151. This demonstration shall be submitted to the Secretary for approval in accordance with Permit Condition 1.10 and in compliance with 20.4.1.500 NMAC, incorporating 264.143(f)(3).~~

~~Changes in financial assurance mechanisms for closure and/or post-closure care must be approved by the Secretary, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.143(f)(6) and 264.145(f)(6).~~

~~2.21 LIABILITY COVERAGE~~

~~2.21.1 Sudden Accidental Occurrences~~

~~2.21.1.a Liability Coverage Requirements for Sudden Accidental Occurrences~~

~~The Permittee shall have and maintain liability coverage for sudden accidental occurrences in the amount of one million dollars ($1,000,000) per occurrence, with an annual aggregate of at least two million dollars ($2,000,000), exclusive of legal defense costs, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.147(a).~~

~~2.21.1.b Documentation of Liability Coverage for Sudden Accidental Occurrences~~

~~The Permittee shall demonstrate to the Secretary, for approval, continuous compliance with the liability coverage required under Permit Condition 2.21.1.a, in accordance with Permit Condition 1.10, at least 60 calendar days before receiving hazardous waste for treatment, storage, or disposal at the Facility, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.147(a). This liability coverage shall be effective before the first receipt of hazardous waste at the Facility.~~

~~2.21.2 Nonsudden Accidental Occurrences~~

~~2.21.2.a Liability Coverage Requirements~~

~~The Permittee shall have and maintain liability coverage for nonsudden accidental occurrences in the amount of three million dollars ($3,000,000) per occurrence, with an annual aggregate of at least six million dollars ($6,000,000), exclusive of legal defense costs, in compliance with20.4.1.500 NMAC, incorporating 40 CFR 264.147(b).~~

~~2.21.2.b Documentation of Liability Coverage for Nonsudden Accidental Occurrences~~

~~The Permittee shall demonstrate to the Secretary, for approval, continuous compliance with the liability coverage required under Permit Condition 2.21.2.a, at least 60 calendar days before receiving hazardous waste for treatment, storage, or disposal at the Facility. The liability coverage shall be in compliance with 20.1.500 NMAC, incorporating 40 CFR 264.147(b). This liability coverage shall be effective before the first receipt of hazardous waste at the Facility, in accordance with Permit Condition 1.10..~~

~~2.22 INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS~~

~~2.22.1 Bankruptcy~~

~~The Permittee shall notify the Secretary by certified mail of the commencement of bankruptcy, and the name of any guarantor within ten days after commencement of the proceeding, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.148(a).~~

~~2.22.2 Other Financial Assurance~~

~~The Permittee shall establish other financial assurance or liability coverage within 60 days from the date the trustee or institution issuing the surety bond, letter of credit, or insurance policy declares bankruptcy; otherwise the Permittee shall be deemed to be without the required financial assurance, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.148(b).~~

2.~~23~~ 19 BACKGROUND SOIL CONCENTRATIONS

~~The Permittee shall establish background concentrations for metals and radionuclides in soil no less than 30 days prior to acceptance of waste at the Facility. The methods for establishing background for soils at the Facility shall be presented in a Background Work Plan submitted to the Secretary by the Permittee no less than 75 days prior to acceptance of waste at the Facility. The Background Work Plan must be approved by the Secretary, in writing, prior to implementation. If the Secretary does not approve the Background Work Plan, the Secretary shall notify the Permittee, in writing, of the Background Work Plan deficiencies and specify a due date for submission of the revised Background Work Plan. The Permittee shall notify the Secretary of the start of implementation of the approved Background Work Plan at least 15 days prior to the commencement of background sampling activities.~~

The Permittee shall establish background concentrations for metals and radionuclides in soil no less than 30 calendar days prior to acceptance of waste at the Facility, in accordance with Permit Condition 1.10. The background concentrations shall be established as specified at Permit Attachment O, Section 8.3, *Closure Performance Standard*. The Permittee shall notify the Secretary of the start of implementation of the approved Background Soil Concentrations Work Plan at least 15 calendar days prior to the commencement of background sampling activities.

~~The approved background concentrations will be included into this Permit at Permit Attachment I, Appendix I1, *Background Concentrations for Soil*.~~

The approved background concentrations will be inserted into this Permit at Permit Attachment U, *Background Concentrations*, Attachment U1, *Background Concentrations for Soil*.

TABLE 2-1

PERMITTED HAZARDOUS WASTES

D Codes[1]	F Codes[2]	K Codes[3]	P Codes[4]	U Codes[5]
D001 - Ignitability[6]	F001-F012	K002-K011	P001-P018	U003-U012
D002 - Corrosivity[6]	F019	K013-K052	P020-P024	U014-U039
D003 - Reactivity[6]	F024-F025	K060-K062	P026-P031	U041-U053
D004-D018	F028	K064-K066	~~P33~~P033-P034	U055-U064
D022-D043	F032	K069	P036-P051	U066-U099
	F034-F035	K071	P054	U101-U103
	F037-F039	K073	P056-P060	U105-U138
		K083-K088	P062-P078	U140-U174
		K090-K091	P081-P082	U176-U194
		K093-K118	P084-P085	U196-U197
		K123-K126	P087-P089	U200-U211
		K131-K132	P092-P099	U213-U223
		K136	P101-P106	U225-U228
		K141-K145	P108-P116	U234-U240
		K147-K151	P118-P123	U243-U244
				U246-U249
				U328
				U353
				U359

1 Wastes exhibiting the characteristics of Ignitability, Reactivity, Corrosivity, and/or Toxicity

2 Wastes from non-specific sources

[3] Wastes from specific sources

[4] Discarded commercial chemical products, off-specification species, container residues, and spill residues thereof

[5] ~~P~~ U Code wastes identified as toxic wastes

[6] Only those ignitable, corrosive, or reactive wastes which can be treated by permitted methods at the Facility prior to placement in the Landfill shall be accepted.

The Part A application lists the following waste codes which are not included on this list: D019, D020, D021, K001, U001, U002.

TABLE 2-2

RECORDKEEPING REQUIREMENTS

SECTION	PERMIT CONDITION
1.9.1	Documents to be Maintained until Completion of Closure
1.9.2	Documents to be Maintained until Completion of Post-Closure Care
2.7.4	Recordkeeping - Inspection Logs
2.8.3	Recordkeeping - Personnel Training Documents and Records
2.9.2	Recordkeeping - Precautions for Ignitable, Reactive, or Incompatible Waste
2.10.5	Arrangements with Local Authorities
2.11.2	Copies of the Contingency Plan
2.11.~~7~~6	Reporting and Recordkeeping - Contingency Plan Implementation
2.12.1	Recordkeeping Requirements
2.12.1.a	Operating Record
2.12.1.b	Required Notification to Off-Site Generators
2.12.1.c	Generator Notifications and Certifications
2.12.1.d	Manifest Records
2.12.1.e	Waste ~~Analyses~~Analysis for Waste Acceptance
2.12.1.f	~~Waste Stream Tracking~~Recordkeeping - 40 CFR 264, Subpart BB Exemption
2.12.1.g	~~Waste Minimization Program~~Recordkeeping - 40 CFR 264, Subpart CC Exemption
2.12.1.h	~~Monitoring Records~~Waste Stream Tracking
2.12.1.i	~~Corrective Action Records~~Waste Minimization Program
2.12.1.j	~~Other Records~~Monitoring Records
2.12.1.~~j~~k	Corrective Action Records
2.12.1.~~j~~l	Other Records
~~2.19.4~~	~~Recordkeeping - Cost Estimates for Closure and Post-Closure Care~~
3.7.1	General Recordkeeping Requirements

SECTION	PERMIT CONDITION
~~3.6.1~~ 3.7.2	Recordkeeping - Evidence of compliance with the requirements for ignitable or reactive wastes
~~3.6.2~~ 3.7.3	Recordkeeping - Compliance with 40 CFR Part 264, Subpart CC
4.6.1	Recordkeeping - Inspection Log
4.6.2	Ignitable or Reactive Waste Records
4.6.5	Recordkeeping - Compliance with 40 CFR Part 264 Subpart BB
4.6.6	Recordkeeping - Compliance with 40 CFR Part 264 Subpart BB
5.7.1.a	Inspection Logs
5.7.1.b	LDRS and VZMS Data
5.7.1.c	40 CFR 264, Subpart BB Records
5.7.1.d	40 CFR 264, Subpart CC Records
6.7.1	Recordkeeping - Landfill Operation
6.7.1.a	Grid Location
6.7.1.b	Inspection Logs
6.7.1.c	LDRS, LCRS, and VZMS Monitoring Data
7.4.10	Sampling Record
7.7.1	Recordkeeping - Operating Records
8.1.7.a	Recordkeeping: Sampling Records - Sampling and analysis activities during closure/post-closure.
8.3.1.a	Recordkeeping - Cost Estimates for Closure
8.3.1.d	Recordkeeping - Cost Estimates for Closure and Post-Closure Care
10.9	Recordkeeping - Regulated Unit Corrective Action
11.11	Recordkeeping - Solid Waste Management Unit Corrective Action

TABLE 2-3

REPORTING/CERTIFICATION/NOTIFICATION REQUIREMENTS

SECTION	PERMIT CONDITION
1.2.2	Permit Renewal
1.2.5	Disclosure Statement
1.2.6	Transfer of Permit
1.5.~~7~~6	Duty to Provide Information
1.5.~~9~~8.a	Reporting Planned Changes
1.5.~~9~~8.b	Reporting Anticipated Noncompliance
1.5.~~9~~8.c	Certification of Construction or Modification
1.5.~~9~~8.d	Twenty-Four Hour and Subsequent Reporting
1.5.~~9~~8.e	Contingency Plan Implementation
1.5.~~9~~8.f	Other Noncompliance
1.5.~~9~~8.g	Other Information
1.7	Reports and Notifications Submitted to the Secretary
~~2.4.4~~	~~Reporting Noncompliance with Waste Acceptance Requirements~~
2.10.6	Notification of Agreements with Local Authorities
2.11.2	Copies of the Contingency Plan
~~2.11.6~~ 2.11.5.a	~~Personnel~~ Emergency Coordinators and Telephone Number Changes
2.11.~~7~~6	Reporting and Recordkeeping - Contingency Plan Implementation
2.12.2	Reporting Requirements
2.12.2.a	Biennial Report
2.12.2.b	Quarterly Report
2.12.2.c	Waste Minimization Program Certification
~~2.4.4~~[There is no 2.4.4] 2.12.2.d	Reporting Noncompliance with Waste Acceptance Requirements
~~2.15.2.c~~ [There is no 2.15.2.c] 2.12.2.d	Reporting - Noncompliance with 40 CFR, Subpart BB and Subpart CC Exemption

SECTION	PERMIT CONDITION
2.14.1.b	Manifest Discrepancies
2.14.1.c	Unmanifested Waste Report
~~2.17.3~~	~~Notification of Closure~~
~~2.17.6~~	~~Certification of Completion of Closure~~
~~2.17.7~~	~~Survey Plat~~
~~2.18.4~~	~~Post-Closure Care Notices~~
~~2.18.4.a~~	~~Hazardous Waste Records~~
~~2.18.4.b~~	~~Notation on Property Deed~~
~~2.18.4.b.i~~	~~Record of notation~~
~~2.18.4.b.ii~~	~~Certification of deed notation~~
~~2.18.5~~	~~Certification of Completion of Post-Closure Care~~
~~2.19.1~~	~~Most Recent Cost Estimates for Closure and Post-Closure Care~~
~~2.20~~	~~Financial Assurance for Closure and Post-Closure Care~~
~~2.21.1.b~~	~~Documentation of Liability Coverage for Sudden Accidental Occurrences~~
~~2.21.2.b~~	~~Documentation of Liability Coverage for Nonsudden Accidental Occurrences~~
~~2.22.1~~	~~Bankruptcy~~
~~3.10.4~~ 3.7.4	Reporting Noncompliance
4.2.6	Certification of Tanks System
4.2.7	Certification of As-Built Specification for Tank System
4.4.3	Certification of Tank System Repair
4.6.3.a	Oral Report - (Spill or Leak)
4.6.3.b	Written Report - (Spill or Leak)
4.6.4	Certification Reporting After Major Repairs
4.6.7	Report of Noncompliance with 40 CFR 264, Subpart CC
5.7.2.a.i	Oral Report of Sudden Drop in a Pond Liquid level
5.7.2.a.ii	Written Report of Sudden Drop in a Pond Liquid Level
5.7.2.b.i	Written Notification of ALR Exceedance

SECTION	PERMIT CONDITION
5.7.2.b.ii	Preliminary Assessment of ALR Exceedance
5.7.2.c	Noncompliance With the 40 CFR 264, Subpart CC Exemption
5.7.3.a	Surface Impoundment CQA Certification
5.7.3.b	Dike Recertification
5.7.3.c	Recertification of Liner
5.10.6	Request Permit Modification to Permit Attachment O
5.10.7	Request Permit Modification to Permit Attachment P
6.7.2	Landfill Operation Reporting and Notification
6.7.2.a	Landfill CQA Certification
6.7.2.b	Waste Identification and Location
6.7.2.c	Response Action
7.3.1.b	Reporting - Non-leachates
7.5.3	Reporting - Schedule
7.5.7	Data Presentation - Notification of Release
7.7.2.a	Reporting - First Quarterly Report
7.7.2.a	Special Reports
7.7.2.c	Biennial Reports
7.7.2.d	Special Reports
7.9	Well Plugging and Abandonment
8.1.2	Amendment to Closure Plan
8.1.2.a	Closure Plan Modification: Amendment When Necessary
8.1.2.b	Landfill and Surface Impoundment Closure Plan Modification Prior to Closure
8.1.2.c	Tank System or Surface Impoundment Closure Plan Modification
8.1.2.d	Receipt of Non-hazardous Waste
8.1.2.e	Modification Required by the Secretary
8.1.3.a	Notification of Closure

SECTION	PERMIT CONDITION
8.1.4.c	Sampling Plan
8.1.5	Certification of Completion of Closure
8.1.6	Survey Plat
8.1.7.b	Quarterly Reports - Closure
8.1.7.c	Final Closure Report
8.2.2 (a-c)	Amendment to the Post-Closure Care Plan
8.2.8	Reporting - Annual Report
8.2.9	Certification of Completion of Post-Closure Care
8.2.11	Post-Closure Care Notices
8.2.11.a	Hazardous Waste Records
8.2.11.b	Notation on Property Deed
8.2.11.b.i	Record of Notation
8.2.11.b.ii	Certification of Deed Notification
8.3.1	Financial Assurance for Closure and Post-Closure Care
8.3.1.a	Most Recent Cost Estimates for Closure and Post-Closure Care
8.3.2	Financial Assurance for Closure and Post-Closure Care
8.3.3.a.ii	Documentation of Liability Coverage for Sudden Accidental Occurrences
8.3.3.b.ii	Documentation of Liability Coverage for Non-sudden Accidental Occurrences
8.3.4.a	Bankruptcy
10.7	Regulated Unit Corrective Action Submittal Requirements
Table 11.1	Solid Waste Management Unit Corrective Action Submittal Requirements

PERMIT PART 3

HAZARDOUS WASTE STORAGE IN CONTAINERS

HIGHLIGHTS

This Part contains conditions for storage of hazardous waste in containers at the Triassic Park Hazardous Waste Disposal Facility (the Facility). Conditions are included for the maximum volumes and kinds of waste which can be stored in containers, and for management and closure of the container storage units. Standards for construction and operation and maintenance of the storage units are also included.

Container storage consists of two permitted areas: the Drum Handling ~~Building~~ Facility and the Roll-Off Container Storage Area. The location of the container storage units within the Facility is provided at Permit Attachment L, *Engineering Report and Drawings*, Drawing No. 4. Information on construction and management of hazardous waste in the container storage areas is provided at Permit Attachment A, *General Facility Description and Information*, Section 2.2, *Container Storage Areas*, and Permit Attachment L, Sections 5.0, *Truck Roll-Off Area*, and 7.0, *Drum Handling Facility*.

The Drum Handling ~~Unit~~Facility is an open-sided building with a roof that extends over the entire floor and truck docking area.~~and contains seven cells separated by walkways.~~ The 49,265 square feet total floor area is divided into 7 drum storage cells, with each cell capable of storing 160 55-gallon drums. Two of the cells are designed as TSCA-PCB cells and are isolated from the other drum storage cells by a 6-inch high by 41-inch wide berm which surrounds the TSCA-PCB cells. The remaining five cells are also separated by berm walkways. The drums will be placed in four rows, two drums deep, and two 12-ft wide aisles will provide access for the forklift to place and remove drums.

The base of the Drum Handling ~~Unit~~Facility consists of a compacted subgrade of non-swelling soils, a 60-mil high density polyethylene (HDPE)geomembrane liner, cushion geotextile, and one foot of foundation sand underlying the building floor. The floor is constructed of steel-reinforced cast-in-place concrete and is covered by a chemical-resistant epoxy coating. The floor serves as the primary containment system. The floor of each cell slopes towards a trench covered by steel grating. Each trench leads to a dual sump system for that cell where any spilled liquids can be collected and removed. The trench and sump system incorporates a

geomembrane liner, leak detection and removal system (LDRS), and leachate collection and removal system (LCRS). The leachate collection sump and drain system has a total fluid capacity of 2,110 gallons, which is greater than the required ten percent (880 gallons) of allowable container volume (160 55-gallon drums or 8,800 gallons) for each cell.

Ignitable, reactive, or incompatible wastes ~~is~~are segregated in separate cells as described in Permit Attachment A, *General Facility Description and Information, Section 2.2, Container Storage Area*. Two of the cells are designated to receive polychlorinated biphenyl (PCB)-contaminated wastes.~~; these cells are surrounded by a six-inch concrete berm.~~

The Roll-Off Container Storage Area is an uncovered, single lined system consisting of a prepared subgrade, a geomembrane underliner, a geonet drainage layer, a geotextile filter layer, a soil subbase layer, and a surface gravel layer. The Area is surrounded by a berm with a height ranging from 4 to 8 feet. This berm will divert run-on surface water around the perimeter of the truck roll-off area. The storage areas will be accessed by 35-foot-wide compacted soil ramps at the center of each cell. Culverts under each of the access ramps allow surface water flow to the west toward the run-off detention basin. The Area consists of two cells which are separated by a berm with a minimum interior height of 2 feet. ~~A berm runs around the outside of the Storage Area and separates the cells.~~ Each cell is approximately 310 feet long by 180 feet wide and can stage 66 40-yd^3 roll-off containers.

The west cell (the Incoming Waste Cell), approximately one-half of the area, holds tarped, U.S. Department of Transportation (DOT)-approved, lined roll-off containers holding non-stabilized hazardous waste prior to treatment. Each container has a plastic bed liner which, together, are considered a double-lined system.

Secondary containment consists of a berm surrounding the Incoming Waste Cell, sloping floor, and sump incorporated into the drainage layer for leak detection and removal. The sump system has a total fluid capacity of 1,406 gallons which is greater than the required ten percent of allowable container volume. The roll-off area drainage sump will be monitored visually to determine whether pumping is required. Precipitation collected in the sump is removed by vacuum truck.

Waste will be characterized and screened as part of the waste acceptance procedures. Roll-off containers ~~is~~are inspected for free liquids prior to acceptance at the Incoming Waste Cell.

Free liquids detected is removed and stabilized. Under no circumstances should roll-offs containing free liquids be stored in the Truck Roll-off Area.

The east cell (the Stabilized Waste Cell) serves as a staging area for roll-off bins containing post-treatment stabilized waste awaiting landfill disposal approval. Construction is identical for the west and east cells.

Waste is transferred to both cells by generator or Facility trucks. After delivery, the trucks are, if necessary, decontaminated at the Truck Wash Area, which is operated as a Resource Conservation and Recovery Act (RCRA) 90-day storage area.

Hazardous waste containing volatile organic concentrations equal to or greater than 500 parts per million by weight (ppmw) is permitted for storag~~t~~e in containers provided these containers are managed in compliance with the Container Level 1 or Level 2 standards required by 20.4.1.500 NMAC, incorporating 40 CFR Part 264, Subpart CC, Section 264.1086. This waste goes directly from the storage areas to the Landfill for final disposal; therefore, ~~this~~ waste permitted to be stored in this area is restricted to waste which, upon acceptance at the Facility, already meets the Land Disposal Restrictions (LDR) treatment standards and which does not contain free liquids.

3.1 GENERAL REQUIREMENTS FOR CONTAINER STORAGE

3.1.1 Permitted Storage in Drums

The Permittee shall store hazardous waste in drums only in cells at the Drum Handling ~~Unit~~Facility, as identified at Table 3-1, *Permitted Storage in Drums*, and as specified at Permit Attachment A, Section 2.2.1.3, *Storage Limits*. The volume of hazardous waste which may be stored in the Drum Handling ~~Unit~~Facility is limited to the maximum capacity identified at Table 3-1, and as specified at Permit Attachment A, Section 2.2.1.3.

3.1.2 Permitted Storage in Roll-Off Containers

The Permittee shall store hazardous waste in roll-off containers only in the Roll-Off Container Storage ~~Unit~~Area, as identified at Table 3-2, *Permitted Storage in Roll-Off Containers*, and as specified at Permit Attachment A, Section 2.2.2.3, *Storage Limits*. The volume of hazardous waste which may be stored in the Roll-Off Container Storage Unit is limited to the maximum

capacity identified at Table 3-2, and as specified at Permit Attachment A, Section 2.2.2.3.

3.1.3 Polychlorinated Biphenyl-Contaminated Waste

The Permittee may store the polychlorinated biphenyl (PCB)-contaminated waste identified at Permit Condition 2.4.1.b in the ~~Container Storage Units~~ Drum Handling Facility.

3.2 CONTAINER STORAGE AREA CONSTRUCTION

3.2.1 Construction Requirements

The Permittee shall construct the Drum Handling ~~Building~~Facility and loading dock area, and the Roll-Off Container Storage Area, as specified at Permit Attachment A, Sections 2.2.1, *Drum Handling Unit*, and 2.2.2, *Roll-Off Storage Area;* and Permit Attachment L, Sections 5.0 and 7.0, and Drawings Nos. 37 through 39 and 41 through 43; and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.~~301~~.

3.2.2 Secondary Containment

The Permittee shall construct and operate the secondary containment systems for each cell in the Drum Handling ~~Unit~~Facility, including the Leak Detection and Removal System (LDRS), and the secondary containment system, including the LDRS, for the Roll-Off Container Storage ~~Unit~~Area, as specified at Permit Attachment A, Sections 2.2.1.1, *Containment and Detection of Releases [Drums]*, and 2.2.2.1, *Containment and Detection of Releases [Roll-Off Containers];* and Permit Attachment L, Sections 5.0 and 7.0, and Drawings Nos. 39 and 43; and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.175~~.~~

~~**3.2.3 Berms**~~

3.3 GENERAL OPERATING REQUIREMENTS FOR CONTAINERS

The Permittee shall manage containers as specified at Permit Attachment A, Section 2.2, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR Part 264, Subpart I.

3.3.1 DOT Requirements

The Permittee shall use only containers that comply with the requirements for DOT shipping container regulations, 49 CFR

Part 173, *Shippers - General Requirements for Shipment and Packaging*, and 49 CFR Part 178, *Specifications for Packagings*, for container storage of hazardous waste.

3.3.2 Acceptable Storage Containers

The Permittee is prohibited from storing hazardous waste in any container other than the following, as specified at Permit Attachment A, Section 2.2.8, *Types of Containers*:

3.3.2.a Drums

The Permittee shall use standard 55-gallon drums with a gross internal volume of 7.3 ft^3, 35-gallon (4.64 ft^3) drums, or 10-gallon (1.23 ft^3) drums. Overpack drums may be used as necessary; and

3.3.2.b Roll-Off Boxes

The Permittee shall use only 40 yd^3 or similar roll-off boxes.

3.3.3 Condition of Containers

The Permittee shall manage containers ~~If a container holding hazardous waste is not in good condition (e.g., has severe rusting or apparent structural defects) or if it begins to leak, the Permittee shall transfer the hazardous waste from such a container to a container that is in good condition,~~ as specified ~~at~~in Permit Attachment A, Section 2.2.10, *Condition of Containers*~~, or shall otherwise manage the waste~~, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.171. If a container holding hazardous waste is in good condition (e.g., has severe rusting or apparent structural defects) or if it begins to leak, the Permittee shall transfer the hazardous waste from such a container to a container that is in good condition.

3.3.4 Compatibility of Wastes with Containers

The Permittee shall use containers made of or lined with materials which shall not react with, and are otherwise compatible with, the hazardous waste to be stored so that the ability of the container to contain waste is not impaired, as specified at Permit Attachment A, Section 2.2.11, *Compatibility with the Container*, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.172.

3.3.5 Management of Containers

The Permittee shall keep all containers closed during storage, except when it is necessary to add or remove waste. The Permittee shall not open, handle, or store containers in a manner which may rupture the container or cause it to leak, as specified at Permit Attachment A, Section 2.2.10, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.173.

3.3.6 Placement of Containers

The Permittee shall store containers in the Drum ~~Storage Unit~~Handling Facility in four rows, no more than two drums deep, as specified at Permit Attachment L, Section 7.1.2, ~~*Drum Handling*~~*Facility Layout*, and Drawing No. 37.

3.3.7 Minimum Aisle Space

The Permittee shall maintain a minimum 2.5-foot aisle space between double rows of drums in the Drum Handling ~~Unit~~Facility such that each drum can be visually inspected, and shall place roll-off containers four feet apart and four feet from the edge of the berm; containers will be stored in single rows only if they against a wall or other barrier that prohibits inspection from all sides, as specified at Permit Attachment A, Section 2.2.13, *Aisle Space*, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.35.

3.3.8 Labeling of Containers

The Permittee shall label each storage container with a hazardous waste label identifying the contents, as specified at Permit Attachment A, Section 2.2.9, *Labels*. The label shall be clearly marked to indicate the date of receipt or accumulation. The label shall not be obscured from view during storage.

3.3.9 Unit Identification

The permitted Facility units and storage cells shall be clearly identified. At a minimum, unit and storage cell information signs shall be posted so as to be clearly visible on the permitted units or storage cells or at approaches to the permitted units, indicating "RCRA PERMIT UNIT (or CELL) xxx". The Permittee shall ensure that drum storage cells and roll-off containers holding ignitable, reactive, or incompatible wastes, or PCB-contaminated wastes, are clearly identified.

3.3.10 Storage Time Limit

The Permittee shall not store wastes restricted from land disposal in containers for longer than one year unless the Permittee can demonstrate that such storage is solely for the purpose of accumulating such quantities of hazardous waste as are necessary to facilitate proper treatment or disposal, as specified at Permit Attachment A, Section 2.1.3, *Waste Staging/Storage~~ing~~*, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 268.50(c).

3.3.11 PCB-Contaminated Wastes

Drums holding wastes contaminated with PCBs shall be stored only in the two cells in the Drum Handling ~~Unit~~Facility designated for that purpose, as specified at Permit Attachment A, Section 2.2.1.3, *Storage Limits*, and as identified at Permit Attachment L, Drawing No. 37.

3.3.12 Repair - 40 CFR 264, Subpart CC

3.3.12.a Repair - Containers Using Container Level 1 Standards

If a defect is detected in a container using Container Level 1 standards in accordance with Permit Condition 3.~~10.2~~11.3, the Permittee shall repair the defect in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1086_(c)(4)(iii).

3.3.12.b Repair - Containers Using Container Level 2 Standards

If a defect is detected in a container which is being managed using Container Level 2 standards in accordance with Permit Condition 3.~~9.3~~11.4, the Permittee shall repair the defect in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1086(d)(4)(iii).

3.4 WASTE ANALYSIS

3.4.1 Volatile Organic Concentration Determination - 40 CFR 264, Subpart CC

The Permittee shall make a determination of the average volatile organic concentration at the point of waste origination for each waste stream stored in each container, as specified at Permit

Attachment F1, *Waste Analysis Plan*, Section 4.5.5.2, *Waste Analysis Requirements Specific to Storage Units*, to determine the need to comply with the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264, Subpart CC. This determination may include determination and documentation that the waste is exempt, as provided for in Permit Condition 3.11.2. When waste testing for average volatile organic concentration has not been performed or has not been completed, the Permittee shall manage the container in accordance with Permit Conditions 3.11.3 and 3.11.4 until the waste average volatile organic concentration is determined.

3.4.2 Waste Determination by the Secretary - 40 CFR 264, Subpart CC

The Secretary may at any time perform or request the Permittee to perform a waste determination for the average volatile organic concentration at the point of waste origination for a hazardous waste managed in a container which is exempted from the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264, Subpart CC, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 1082(d).

~~3.4.1 Volatile Organic Concentration Determination - 40 CFR 264, Subpart CC~~

~~**The Permittee shall make a determination of the average volatile organic concentration at the point of waste origination for each waste stream stored in each container, as specified at Permit Attachment F, *Waste Analysis Plan*, Section 4.5.5.2, *Waste analysis requirements specific to storage units*, to determine the need to comply with the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264, Subpart CC, Section 1083.**~~

~~3.4.2 Waste Determination by the Secretary - 40 CFR 264, Subpart CC~~

~~The Secretary may at any time perform or request the Permittee to perform a waste determination for the average volatile organic concentration at the point of waste origination for a hazardous waste managed in a container which is exempted from the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264, Subpart CC, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 1082(d).~~

3.5 MANAGEMENT OF LEAKS OR SPILLS

3.5.1 General Management Requirements

Upon detection of a spill or release at the Container Storage Units, to either the surface environment or an LDRS, the Permittee shall make a determination in accordance with Permit Attachment F1, Sections 4.6.3, *Releases*, and 4.5.6, *Waste Analysis Requirements for Waste Generated On-Site*, to identify the nature and concentration of all waste constituents, and shall select an appropriate method of treatment and/or disposal, and initiate procedures for removal in a timely manner, as specified at Permit Attachment A, Sections 2.2.1.1~~ and 2.2.2.2~~.

3.6 INSPECTION SCHEDULES AND PROCEDURES

3.6.1 Inspection ~~Procedures~~ Procedures

The Permittee shall inspect the Container Storage Units to ascertain the condition of containers and secondary containment, safety equipment, and aisle space at least weekly as specified at Permit Attachment D, *Inspection Procedures*, Section 5.2.4, *Container Storage Area Inspection Procedures*, and Attachment ~~Appendix~~ D1, *Inspection Schedules and Checklists*, to detect leaking containers and deterioration of the containment system caused by corrosion and other factors; and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.174.

3.6.2 Inspection for Compliance with 40 CFR 264,Subpart CC

3.6.2.a Inspection for Containers Using Container Level 1 Standards

The Permittee shall inspect containers using Container Level 1 controls in accordance with Permit Condition 3.11.3, and their covers and closure devices, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1086(c)(4)(i) and 40 CFR 264.1086(c)(4)(ii). Inspection shall be at first acceptance of containers if the container is not emptied within 24 hours of acceptance. Inspection shall include determination if any visible cracks, holes, gaps or other open spaces exist. Defects shall be repaired by the Permittee in accordance with the requirements of Permit Condition 3.3.12.a.

3.6.2.b Inspection for Containers Using Container Level 2 Standards

The Permittee shall inspect containers using Container Level 2 controls in accordance with Permit Condition 3.11.4, and their covers and control devices, in compliance with 20.4.1.500 NMAC , incorporating 40 CFR 264.1086(d)(4)(i) and 40 CFR 264.1086(c)(4)(ii). Inspection shall be at first acceptance of containers if the container is not emptied within 24 hours of acceptance. Inspection shall include determination if any visible cracks, holes, gaps or other open spaces exist, or if there are any defects with the . Defects shall be repaired by the Permittee in accordance with the requirements of Permit Condition 3.3.12.b.

~~3.6.2 Inspection for Compliance with 40 CFR 264,Subpart CC~~

~~3.6.2.a Inspection for Containers Using Container Level 1 Standards~~

~~The Permittee shall inspect containers using Container Level 1 controls in accordance with Permit Condition 3.10.2, and their covers and closure devices, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1086(c)(4)(i) and 40 CFR 264.1086(c)(4)(ii).~~

~~3.6.2.b Inspection for Containers Using Container Level 2 Standards~~

~~The Permittee shall inspect containers using Container Level 2 controls in accordance with Permit Condition 3.10.3, and their covers and control devices, in compliance with 20.4.1.500 NMAC , incorporating 40 CFR 264.1086(d)(4)(i) and 40 CFR 264.1086(c)(4)(ii).~~

3.7 RECORDKEEPING AND REPORTING

3.7.1 General Recordkeeping Requirements

The Permittee shall keep inspection records, container storage waste analyses and other documentation pertaining to compliance, and records of maintenance performed in the Operating Record, as specified at Permit Attachment N, Section 3.8.1, *Records*.

3.7.2 Ignitable or Reactive Wastes

The Permittee shall document and place in the Operating Record evidence of compliance with the requirements for ignitable or reactive wastes contained at Permit Condition ~~3.7,~~ 3.8, including the results of all waste analyses, trial tests, and any other documentation showing compliance, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.17(c) and 40 CFR 264.73.

3.7.3 Compliance - 40 CFR Part 264, Subpart CC

The Permittee shall maintain at the Facility a copy of the procedure used to determine that containers with capacity of 0.46 m^3 or greater~~,~~ and using Container Level 1 standards in accordance with Permit Condition ~~3.10.2~~3.11.3, and which do not meet the applicable DOT regulations on packaging hazardous materials for transportation specified at 20.4.1.500 NMAC, incorporating 40 CFR 264.1086~~.~~(f), are not managing hazardous waste in light material service, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1086(c)(5).

3.7.4 Reporting Noncompliance - 40 CFR 264, Subpart CC

The Permittee shall report to the Secretary each occurrence when the average volatile organic concentration of any hazardous waste placed in a container that does not meet the requirements of Permit Condition 3.11.3 and 3.11.4 is greater than or equal to 500 ppmw or is unknown, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1090(a).

~~**3.7.4 Reporting Noncompliance - 40 CFR 264, Subpart CC**~~

~~The Permittee shall report to the Secretary each occurrence when the average volatile organic concentration of any hazardous waste placed in a container is greater than or equal to 500 ppmw, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1090(a).~~

3.8 SPECIAL PROVISIONS FOR IGNITABLE OR REACTIVE WASTE

3.8.1 Procedures for Ignitable or Reactive Waste

The Permittee shall not store ignitable or reactive waste in a container unless the procedures specified at Permit Attachment A, Section 2.2.5, *Ignitable/Reactive Wastes*, and Permit Attachment B, **Procedures to Prevent Hazards**, Section 5.5, *Precautions to Prevent Ignition or Reaction of Ignitable, Reactive, or Incompatible Wastes*, are followed, in compliance with20.4.1.500 NMAC, incorporating 40 CFR 264.17(a) and 264.17(b).

3.8.2 Protective Distances

Ignitable or reactive waste in drums stored in the Drum Handling ~~Unit~~Facility shall be stored only in a cell clearly marked for ignitable or reactive waste. The Permittee shall not locate ~~roll-off~~ containers holding ignitable or reactive waste within 50 feet of the Facility's property line, as specified at Permit Attachment A, Section 2.2.5, *Ignitable/Reactive Wastes*, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.176.

3.9 SPECIAL PROVISIONS FOR INCOMPATIBLE WASTE

3.9.1 Separation of Incompatible Wastes

The Permittee shall not place incompatible wastes, or incompatible wastes and materials, in the same container, as specified at Permit Attachment B, Section 5.5.3, *Incompatible Waste Handling*; and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.177(a).

3.9.2 Unwashed Containers

The Permittee shall not place hazardous waste in an unwashed container that previously held an incompatible waste or material, as specified at Permit Attachment A, Section 2.2.11, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.177(b).

3.9.3 Segregation of Containers with Incompatible Wastes

Hazardous waste containers in Container Storage Areas shall be segregated by waste type and compatibility, as specified at

Permit Attachment B, Section 5.5.3, and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.177(c).

3.10 HEALTH AND SAFETY

The Permittee shall ensure that Facility personnel involved with drum sampling and decanting activities at the Drum Handling ~~Unit~~Facility use supplied air respiratory systems, as specified at Permit Attachment L, Section 7.1.2, *Facility Layout*. [May want to have a legal review regarding this condition.]

3.11 AIR EMISSION STANDARDS SPECIFIC TO CONTAINERS

3.11.1 40 CFR 264, Subpart BB Exemption

In order to maintain exemption from the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264, Subpart BB, as specified at Permit Attachment G, *Air Quality*, Section 11.2, *40 CFR 264 Subpart BB - Air Emission Standards for Equipment Leaks*, the Permittee shall not place in any equipment or piping any hazardous waste with an organic concentration of at least ten percent by weight, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1050(b).

3.11.2 Exemptions - 40 CFR 264, Subpart CC

3.11.2.a Volatile organic concentration

Containers containing hazardous waste with an average volatile organic concentration of less than 500 parts per million by weight (ppmw) at the point of waste origination are exempt from compliance with 20.4.1.500 NMAC, incorporating 40 CFR Part 264, Subpart CC, in accordance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1082(c)(1). Hazardous wastes with unknown or undocumented average volatile organic concentration at the point of waste origination are not exempt from compliance under these requirements.

3.11.2.b Compliance with numerical concentration limits

The following containers containing hazardous waste are exempt from compliance with 20.4.1.500 NMAC, incorporating 40 CFR 268, Subpart CC, in accordance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1082(c)(4):

- Containers containing organic waste which meets the numerical concentration limits for organic hazardous constituents, applicable to the hazardous waste, as specified at the Table contained in 20.4.1.800 NMAC, incorporating 40 CFR 268.40;

- Containers containing organic waste which has been treated by the treatment technology established for the waste in 20.4.1.800 NMAC, incorporating 40 CFR 268.42(a); or

- Containers containing organic waste which has been treated by an equivalent method approved by the Secretary.

3.11.2.c Design capacity

Containers that have a design capacity less than or equal to 0.1 m^3 (approximately 26 gal) shall be exempt from compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264, Subpart CC, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1080(b)(2)

3.11.3 40 CFR Part 264, Subpart CC Level 1 Standards

Containers having a design capacity greater than 0.1 m^3 and less than or equal to 0.46 m^3 (approximately 122 gal) and containing waste with either undocumented volatile organic concentration or have a measured average volatile organic concentration at the point of waste origination equal to or greater than 500 ppmw shall be managed in accordance with the Container Level 1 standards specified at 20.4.1.500 NMAC, incorporating 40 CFR 264.1086(c), in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1086(b)(1)(i).

Containers having a design capacity greater than 0.46 m^3 that are not in light material service and that contain waste with an average volatile organic concentration at the point of waste origination equal to or greater than 500 ppmw shall be managed in accordance with the Container Level 1 standards specified at 20.4.1.500 NMAC, incorporating 40 CFR 264.1086(c), in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1086(b)(1)(ii).

3.11.4 40 CFR Part 264, Subpart CC Level 2 Standards

Containers having a design capacity greater than 0.46 m^3 that are in light material service and that contain waste with an average volatile organic concentration at the point of waste origination equal to or greater than 500 ppmw shall be managed in accordance

with the Container Level 2 standards specified at 20.4.1.500 NMAC, incorporating 40 CFR 264.1086(d), in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1086(b)(1)(iii). Containers having a design capacity greater than 0.46 m^3 that contain waste for which the condition of light material service is unknown or undocumented shall be managed by the Permittee as if the waste was in light material service, until the waste is demonstrated otherwise.

~~**3.11 AIR EMISSION STANDARDS SPECIFIC TO CONTAINERS**~~

~~**3.11.1 40 CFR 264, Subpart BB Exemption**~~

~~In order to maintain exemption from the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264, Subpart BB, the Permittee shall~~

~~**3.11.2 Exemptions - 40 CFR 264, Subpart CC**~~

~~**3.11.2.a Volatile organic concentration**~~

~~Containers containing hazardous waste with an average volatile organic concentration of less than 500 parts per million by weight (ppmw) at the point of waste origination are exempt from compliance with 20.4.1.500 NMAC, incorporating 40 CFR Part 264, Subpart CC, in accordance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1082(c)(1).~~

~~**3.11.2.b Compliance with numerical concentration limits**~~

~~The following containers containing hazardous waste are exempt from compliance with 20.4.1.500 NMAC, incorporating 40 CFR 268, Subpart CC, in accordance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1082(c)(4):~~

- ~~Containers which meet the numerical concentration limits for organic hazardous constituents, applicable to the hazardous waste, as specified at the Table contained in 20.4.1.800 NMAC, incorporating 40 CFR 268.40;~~

- ~~Containers containing waste which has been treated by the treatment technology established for the waste in 20.4.1.800 NMAC, incorporating 40 CFR 268.42(a); or~~

- ~~Containers containing waste which has been treated by an equivalent method approved by the Secretary.~~

~~**3.11.2.c Design capacity**~~

~~Containers that have a design capacity less than or equal to 0.1 m^3 (approximately 76 gal) shall be exempt from compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264, Subpart CC, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1080(b)(2).~~

~~**3.11.2~~3~~ 40 CFR Part 264, Subpart CC Level 1 Standards**~~

~~Containers having a design capacity greater than 0.1 m^3 and less than or equal to 0.46 m^3 (approximately 126 gal) and an average volatile organic concentration at the point of waste origination equal to or greater than 500 ppmw shall be managed in accordance with the Container Level 1 standards specified at 20.4.1.500 NMAC, incorporating 40 CFR 264.1086(c), in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1086(b)(1)(i).~~

~~Containers having a design capacity greater than 0.46 m^3 that are not in light material service and that contain waste with an average volatile organic concentration at the point of waste origination equal to or greater than 500 ppmw shall be managed in accordance with the Container Level 1 standards specified at 20.4.1.500 NMAC, incorporating 40 CFR 264.1086(c), in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1086(b)(ii).~~

~~**3.11.3~~4~~ 40 CFR Part 264, Subpart CC Level 2 Standards**~~

~~Containers having a design capacity greater than 0.46 m^3 that are in light material service and that contain waste with an average volatile organic concentration at the point of waste origination equal to or greater than 500 ppmw shall be managed in accordance with the Container Level 2 standards specified at 20.4.1.500 NMAC, incorporating 40 CFR 264.1086(d), in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1086(b)(iii).~~

3.~~11~~12 Closure

3.~~11~~12.1 Closure Activities

The Permittee shall conduct closure activities for the Drum Handling Unit and/or the Roll-Off Container Storage Unit as specified at Permit Attachment O, *Closure Plan*, Sections 8.1.1, *Drum Handling Unit*, and 8.1.5, *Roll-Off Storage Area*, and other pertinent sections; and in accordance with Permit ~~Part~~Condition 8 and Permit Condition 2.17; and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.178. The Permittee shall follow

the time frame for closure specified at Permit Attachment O1, *Schedule for Closure.*

TABLE 3-1

PERMITTED STORAGE IN THE DRUM-HANDLING UNIT

UNIT	DIMENSIONS	MAXIMUM ALLOWABLE CAPACITY
Cell 1; secondary containment; loading dock area	52 ft by 63 ft	160 55-gal drums or equivalent (8,800 gal)
Cell 2; secondary containment	52 ft by 63 ft	160 55-gal drums or equivalent (8,800 gal)
Cell 3; secondary containment	52 ft by 63 ft	160 55-gal drums or equivalent (8,800 gal)
Cell 4; secondary containment	52 ft by 63 ft	160 55-gal drums or equivalent (8,800 gal)
Cell 5; secondary containment	52 ft by 63 ft	160 55-gal drums or equivalent (8,800 gal)
Cell 6; secondary containment	52 ft by 63 ft	160 55-gal drums or equivalent (8,800 gal)
Cell 7; secondary containment	52 ft by 63 ft	160 55-gal drums or equivalent (8,800 gal)
TOTAL		1,120 55-gal drums or equivalent (61,600 gal)

TABLE 3-2

PERMITTED STORAGE IN THE ROLL-OFF CONTAINER UNIT

UNIT	DIMENSIONS	MAXIMUM ALLOWABLE CAPACITY
Incoming Waste Cell; secondary containment	180 ft by 310 ft (inside dimensions)	66 40-yd^3 roll-off containers or roll-off container equivalent
Stabilized Waste Cell; secondary containment	180 ft by 310 ft (inside dimensions)	66 40-yd^3 roll-off containers or roll-off container equivalent
TOTAL		132 40-yd^3 roll-off containers or roll-off container equivalent

PERMIT ATTACHMENTS REFERENCED IN PART 3

Permit Attachment	Document or Plan
A	General Facility Description and Information
B	Procedures to Prevent Hazards
D	Inspection Procedures
—D1	Inspection Schedules and Checklists
F	Waste Analysis Plan
G	Air Quality
L	Engineering Report and Drawings
N	Operations and Maintenance Plan
O	Closure Plan
—O1	Schedule for Closure

PERMIT PART 4

HAZARDOUS WASTE STORAGE AND TREATMENT IN TANKS

HIGHLIGHTS

This Part contains conditions for storage and treatment of hazardous waste in tanks at the Triassic Park Waste Disposal Facility (the Facility). Permitted waste which can be stored or treated in tanks is identified at Permit Condition 2.4.1~~.~~ and Table 2-1, Permitted Waste. Waste which is prohibited is identified at Permit Conditions 2.4.2.

Hazardous waste at the Facility is stored in tanks in the Liquid Waste Storage Tanks. Hazardous waste is treated in tanks in the Stabilization Tank Building. The location of these units within the Facility is provided at Permit Attachment L, *Engineering Report and Drawings*, Drawing No. 4, *Facility Layout*.

Tank storage consists of four aboveground tanks. Only liquids are stored in tanks. Each of the four tanks is double-walled and constructed of high density polyethylene materials. The outer wall provides secondary containment for the tank. Each outer tank has sufficient capacity to contain 100 percent of the contents of the inner tank in the event of tank failure. The Liquid Waste Tank Storage Area has a coated concrete pad beneath the tanks and has no roof or walls. The concrete floor slopes to a sump. Spill prevention is maintained by hard-plumbed piping, dry disconnect coupling, and/or overfill prevention controls. Storage in tanks is discussed at Permit Attachment A, *General Facility Description and Information*, Section 2.3, *Storage in Tanks*.

Liquids are transferred directly from off-site tanker trucks, or from the Drum Handling Unit or the Roll-Off Container Area (Incoming Waste Cell), to the Storage Tanks. Liquids are transferred by transfer truck from the tanks to a Stabilization Bin or the Surface Impoundment for treatment.

The Stabilization Area consists of a building containing four in-ground double-lined steel stabilization bins and a control room. The bins are double-walled steel tanks contained in a concrete vault for additional support. The outer wall provides secondary containment for the tank. Corrosion protection consists of cathodic grounding of the bins. Outside the building are two dry reagent silos, a water tank, and exhaust air bag house. Air

particulates are removed and collected into a bag house prior to venting of air emissions out of the building. Treatment in tanks is discussed at Permit Attachment A, Section 2.4, *Stabilization*.

Treatment consists of solidification of the waste by mixing with dry or liquid reagents. Wastes are tested prior to stabilization in the bins to determine the appropriate reagent and compatibility with the tanks. Reagent is added to the bin by a backhoe. Bulk liquids, sludges, and solids that do not meet Land Disposal Restriction (LDR) standards, as well as solids that may contain free liquids, are treated.

Hazardous waste is off-loaded directly from off-site transport trucks, or from truck coming from the Container Storage Areas or Liquid Waste Storage Tanks, into the stabilization bins. After stabilization, the waste is transferred to a roll-off container and either stored in the Roll-Off Container Area (Stabilized Waste Cell) to cure or transferred directly to the Landfill.

In order to maintain exemption for the ~~the~~ Liquid Waste Storage Tanks and stabilization bins from compliance with the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264, Subpart BB, as specified at Permit Attachment G, *Air Quality*, Section 11.2, *40 CFR 264 Subpart BB - Air Emission Standards for Equipment Leaks*, no hazardous waste with an organic concentration of at least ten percent by weight~~, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1050(b)~~ shall be~~is~~ placed in the Liquid Waste Storage Tanks and stabilization bins.

In order to maintain exemption for the ~~the~~ Liquid Waste Storage Tanks and stabilization bins from compliance with the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264, Subpart CC, as specified at Permit Attachment G, Section 11.3, *40 CFR Subpart CC - Air Emissions Standards for Tanks, Surface Impoundments and Containers*, no hazardous waste which has an average volatile concentration at the point of waste origination equal to or greater than 500 parts per million by weight (ppmw), in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1082(c)(1) shall be~~is~~ placed in the Liquid Waste Storage Tanks and stabilization bins.

4.1 GENERAL REQUIREMENTS FOR TANKS

4.1.1 Permitted Storage Tanks

The Permittee shall store liquid hazardous wastes in tanks only in the Liquid Waste Storage Tanks identified at Table 4-1,

Permitted Liquid Waste Storage Tanks, as specified at Permit Attachment A, Section 2.3. The volume of liquid hazardous waste stored in each tank is limited to the capacity identified at Table 4-1, as specified at Permit Attachment A, Section 2.3.

4.1.2 Permitted Treatment Tanks

The Permittee shall treat hazardous waste in tanks only in the Stabilization Bins, identified at Table 4-2, *Permitted Treatment in Tanks*, as specified at Permit Attachment A, Section 2.4. Quantities of hazardous waste treated in each bin are~~is~~ limited to the maximum capacities identified at Table 4-2, as specified at Permit Attachment A, Section 2.4.

4.1.3 Permitted Wastes in Tanks

The Permittee shall store or treat in tanks only those wastes identified in Table 2-1, *Permitted Hazardous Wastes*, subject to the prohibition contained in Permit Condition 4.1.4.

4.1.4 Prohibited Wastes in Tanks

4.1.4.a General Waste Prohibition

The Permittee is prohibited from storing or treating in tanks those wastes identified at Permit Attachment A, Section 4.2.2, and Permit Attachment F1, Section 4.1.2.

4.1.4.b Wastes Ceontaining Ceoncentrations of Vvolatile Oerganic Ceompounds > 500 ppmw

The Permittee shall not manage ~~is prohibited from managing~~ hazardous wastes that contain volatile organic compounds (VOCs) greater than 500 parts per million by weight (ppmw) or with an unknown or undocumented concentration, at the point of waste origin, in tanks in accordance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1082(c)(1), unless the waste meets one of the following conditions:

- Organic waste which meets the numerical concentration limits for organic hazardous constituents, applicable to the hazardous waste, as specified at the Table contained in 20.4.1.800 NMAC, incorporating 40 CFR 268.40;

- Organic waste which has been treated by the treatment technology established for the waste in 20.4.1.800 NMAC, incorporating 40 CFR 268.42(a); or

- Organic waste which has been treated by an equivalent method approved by the Secretary.

4.1.4.c Wastes Ceontaining Ceoncentrations of Oerganic Ceompounds > 10 percent by weight

The Permittee~~d~~ shall not manage~~is prohibited from managing~~ in any equipment, tanks, or piping any hazardous waste with an organic concentration of at least ten percent by weight, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1050(b).

4.2 DESIGN AND CONSTRUCTION

4.2.1 Requirements for Storage Tanks

The Permittee shall design and construct the Liquid Waste Storage Tanks, concrete pad, ancillary equipment, and receiving area, as specified at Permit Attachment A, Sections 2.3 and 2.4, and the Permit Attachment L ~~Application, Vol. III~~, Sections 8.0, *Liquid Waste Storage Facility*~~Unit~~, and Drawing 40~~,~~. [20.4.1.500 NMAC, incorporating 40 CFR 264.192]

4.2.2 Requirements for Treatment Tanks

The Permittee shall design and construct the Stabilization Bins, ancillary equipment, vault, and receiving area as specified at Permit Attachment L, ~~Engineering Report and Drawings,~~ and on Drawings Nos. 33 through 36. [20.4.1.500 NMAC, incorporating 40 CFR 264.192]

4.2.3 Secondary Containment for Storage Tanks

The Permittee shall design, construct, and operate the secondary containment systems for the Liquid Waste Storage Tanks as specified at Permit Attachment A, Sections 2.3.1 and 2.4.1, Containment and Detection of Releases, and ~~the~~ Permit Attachment L ~~Application, Vol. III~~, Section 8.0, and Design Drawings No. 40. [20.4.1.500 NMAC, incorporating 40 CFR 264.193(b) through 264.193(f)]

4.2.4 Secondary Containment for Treatment Tanks

The Permittee shall design, construct, and operate the secondary containment systems for the Stabilization Tanks as specified at Permit Attachment A, Sections 2.3.1 and 2.4.1~~,~~ *C~~C~~ontainment and Detection of Releases*, and ~~the~~ Permit Attachment L~~Application, Vol. III~~, Section 8.0, and Design Drawings Nos. 33 through 36. [20.4.1.500 NMAC, incorporating 40 CFR 264.193(b) through 264.193(f)].

4.2.5 Ancillary Equipment

The Permittee shall design and construct secondary containment for ancillary equipment as specified at Permit Attachment A, Sections 2.3.1, 2.4.1, 2.3.9, and 2.4.9, Ancillary Equipment, Permit Attachment A, Sections 2.3.1 and 2.4.1, ~~Containment and Detection of Releases,~~ and ~~the~~ Permit Attachment L~~Application, Vol. III~~, Section 8.0, and Design Drawings Nos. 33 through 40. [20.4.1.500 NMAC, incorporating 40 CFR 264.193(f)].

4.2.6 Required Certification

The Permittee shall install the Liquid Waste Storage Tank and the Stabilization Tank systems in such a manner as to insure that the systems are not damaged during installation. Prior to placing the tank systems in use, the tank systems shall be inspected and certified by an independent qualified installation inspector or an independent qualified professional engineer registered in New Mexico. The certification shall state that the tank systems were properly designed and installed pursuant to 20.4.1.500 NMAC, incorporating 40 CFR 264.192(b) and 264.193(d), as specified at Permit Attachment A, Sections 2.3.10 and 2.4.10, Installation and Tightness Testing. [20.4.1.900 NMAC, incorporating 40 CFR 270.11(d)].

The Permittee shall keep this certification on file at the Facility. [20.4.1.500 NMAC, incorporating 40 CFR 264.192(g)]

4.2.7 As-Built Specifications

The Permittee shall submit to the Secretary as-built specifications for the tank systems in accordance with Permit Condition 1.10, Table 1-1.

4.3 GENERAL OPERATING REQUIREMENTS FOR TANKS

4.3.1 Compatibility with Tanks

The Permittee shall not place hazardous wastes or treatment reagents in a tank system if they could cause the tank, its ancillary equipment, or containment system, to rupture, leak, corrode, or otherwise fail, as specified at Permit Attachment A, Section 5.5.1, General Requirements. [20.4.1.500 NMAC, incorporating 40 CFR 264.194(a) and 264.199)].

4.3.2 Spill and Overflow Prevention

The Permittee shall use appropriate controls and practices to prevent spills and overflows from tanks or the containment system as specified at Permit Attachment A, Sections 2.3.3 and 2.4.3, Spill and Overflow Prevention. [20.4.1.500 NMAC, incorporating 40 CFR 264.194(b)].

4.3.3 Storage Time Limit

The Permittee shall not store waste in a tank for longer than one (1) year unless he can demonstrate that such storage is solely for the purpose of such quantities of hazardous waste as are necessary to facilitate proper treatment or disposal. [20.4.1.800 NMAC, incorporating 40 CFR 268.50(b) and 268.50(c)].

4.3.4 Necessary Treatment in Tanks

The Permittee shall stabilize all bulk liquids, semi-solids, sludges, solids that may contain free liquids, and solids that do not meet the Land Disposal Restrictions (LDR) treatment standards of 20.4.1.800 NMAC incorporating 40 CFR, Part 268, prior to their disposal in the Landfill.

4.4 MANAGEMENT OF LEAKS OR SPILLS

4.4.1 Removal of Tank System from Use

In the event of a release or spill from a tank system or surrounding area, or if a system becomes unfit for further use, the Permittee shall remove the system from service immediately and complete the following actions as specified at Permit Attachment A, Sections 2.3.1 and 2.4.1, Containment and Detection of Releases, and 2.3.11 and 2.4.11, Repair and Certification of

Tank Systems, and Permit Attachment C, *Contingency Plan*. [20.4.1.500 NMAC, incorporating 40 CFR 264.196]~~:~~

4.4.1.a Management of H~~h~~azardous W~~w~~aste

The Permittee shall stop the flow of hazardous waste and inspect the system to determine the cause of the release.

4.4.1.b Containment of V~~v~~isible R~~r~~eleases

The Permittee shall immediately conduct a visual inspection of all releases to the environment, and, based~~s~~ on that inspection, shall (1) prevent further migration of the leak or spill, and (2) remove and properly dispose of any visible contamination from the system within 24 hours of detection to prevent further release and to allow inspection and repairs of the system as specified at Permit Attachment A, Sections 2.3.11 and 2.4.11. If the Permittee finds that it will be impossible to meet this time period, the Permittee shall notify the Secretary and demonstrate that a longer time period is required to select an appropriate method of treatment and/or disposal~~, as specified at Permit Attachment A, Sections 2.2.1.1 and 2.2.2.1, Contamination and Detection of Releases, and Permit Attachment F, Waste Analysis Plan, Waste AnalysisAcceptance Plan~~. [20.4.1.500 NMAC, incorporating 40 CFR 264.196(c)].

4.4.1.c Waste A~~a~~nalysis

Upon detection of a spill or release at the Liquid Waste Storage Tank Area or the Stabilization Building, the Permittee shall conduct a waste analysis in accordance with Permit Attachment F1, Section 4.6.3, *Releases*, and 4.5.6, *Waste Analysis Requirements for Waste Generated On-Site*, ~~Condition 2.3~~ to determine the nature and concentration of any waste constituents.

4.4.2 Conditions in Lieu of Closure

The Permittee shall close the tank system as specified at Permit Attachment O, Closure Plan, unless the following steps are taken:

4.4.2.a Integrity of System

For a release caused by a spill that has not damaged the integrity of the system, the Permittee shall remove the waste and make any necessary repairs to fully restore the integrity of the system before returning the tank system to service.

4.4.2.b Release from Primary Tank System

For a release caused by a leak from the primary tank system to the secondary containment system, the Permittee shall repair the primary system prior to returning it to service, as specified at Permit Attachment A, Sections 2.3.11 and 2.4.11.

4.4.2.c Secondary Containment Requirement

For a release to the environment caused by a leak from a component ~~the portion~~ of the tank system ~~component~~ that is not fitted with secondary containment~~readily available for visual inspection~~, the Permittee shall provide secondary containment for the component that meets the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264.193, before the component can be returned to service, in accordance with 20.4.1.500 NMAC, incorporating 40 CFR 264.196(e)(4).

4.4.2.d Component Replacement

If the Permittee replaces a component of the tank system to eliminate the leak, that component shall satisfy the requirements for new tank systems or components contained at 20.4.1.500 NMAC, incorporating 40 CFR 264.192 and 264.193].

4.4.3 Certification

For all major repairs to eliminate leaks or restore the integrity of the tank system (e.g., installation of an internal liner, repair of a ruptured tank, or repair or replacement of a secondary containment vault), the Permittee shall, before returning the system to service, obtain a certification by an independent professional engineer registered in New Mexico that the repaired system is capable of handling hazardous wastes without release for the intended life of the system as specified at Permit Attachment A, Section 2.4.11. [20.4.1.500 NMAC, incorporating 40 CFR 264.196(f)].

4.5 INSPECTION SCHEDULES AND PROCEDURES

4.5.1 Inspections

The Permittee shall inspect the tank systems, overfill controls, and cathodic protection systems daily, as specified at Permit Attachment A, Section 2.4.6, Inspections, Permit Attachment D, *Inspection Procedures*, Section 5.2, *Inspection Procedures*, and

Appendix D~~E~~1, *Inspection Schedules and Checklists*, Table 5-1, *Inspection Schedules*, and using the appropriate checklists contained at Appendix D~~E~~1. The inspection shall include:

- ~~o~~• Aboveground portions of the tank system, to detect corrosion or releases of waste;

- ~~o~~• Data gathered from monitoring and leak detection equipment (e.g., level indicators or pressure or temperature gauges), to ensure that the tank system is being operated according to its design; and

- • Construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system, to detect erosion or signs or releases of hazardous waste (e.g., wet spots). [20.4.1.500 NMAC, incorporating 40 CFR 264.15(a), 264.15(c)].

~~•Construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system, to detect erosion or signs or releases of hazardous waste (e.g., wet spots). [20.4.1.500 NMAC, incorporating 40 CFR 264.15(a), 264.15(c)].~~

4.5.2 Overfill controls

The Permittee shall develop a procedure for inspection of the overfill controls identified at Permit Attachment A, Sections 2.3.3 and 2.4.3, Spill and Overflow Prevention and shall include this procedure as p~~P~~art of the inspection required under Permit Condition 4.5.1. [20.4.1.500 NMAC, incorporating 40 CFR 264.195(a)]. [Note: For legal review. This is a condition from Stephanie Kruse. TechLaw has not included this on the compliance schedule, but the manner in which it reads makes us believe it may be. We were not sure so we did not include it.]

4.5.3 Cathodic Protection Systems

The Permittee shall inspect the cathodic protection systems for the Stabilization Bins in accordance with the following schedule:

- ~~o~~• The proper operation of the cathodic protection system shall be confirmed within six months from initial installation and annually thereafter; and

- All sources of impressed current shall be inspected and tested every other month. [20.4.1.500 NMAC, incorporating 40 CFR 264.195(c)].

4.6 RECORDKEEPING AND REPORTING

4.6.1 Recordkeeping

The Permittee shall record inspections in an inspection log or summary in accordance with Permit Condition 2.7.2 and shall keep these records in the Operating Record. [20.4.1.500 NMAC, incorporating 40 CFR 264.15(d) and 264.195(d)].

4.6.2 Ignitable or Reactive Waste Records

The Permittee shall document and place in the Operating Record, in accordance with Permit condition 2.7.2, evidence of compliance with the requirements for ignitable, reactive, and incompatible waste contained at 20.4.1.500 NMAC, incorporating 40 CFR 264.17, 264.198, and 264.199), using data from trial tests, waste analyses, and/or the results of the treatment of similar wastes by similar treatment processes. [20.4.1.500 NMAC, incorporating 40 CFR 264.195(d)].

4.6.3 Leak or Spill Reporting

4.6.3.a Oral Report

The Permittee shall report to the Secretary, within 24 hours of detection, any leak or spill that occurs from a tank treatment system or secondary containment system to the environment. [20.4.1.500 NMAC, incorporating 40 CFR 264.196(d)]

A leak or spill of one (1) pound or less of hazardous waste that is immediately contained and cleaned up need not be reported. [20.4.1.500 NMAC, incorporating 40 CFR 264.196(d)(2)].

4.6.3.b Written Report

Within 30 days of detecting a release to the environment that shall be reported to the Secretary from a tank storage system or tank secondary containment system, the Permittee shall submit a written report to the Secretary. The report shall contain:

- The likely route of migration;

- As appropriate, characteristics of the surrounding soil, including soil composition, geology, hydrogeology, and climate;

- Results of any monitoring or sampling conducted in connection with the release. If the Permittee is unable to meet this time period, the Permittee shall provide the Secretary with a schedule of when the results will be available. This schedule shall be provided before the required 30-day submittal period expires;

- As appropriate, proximity of downgradient drinking water, surface water, and populated areas; and

- Description of response actions planned or taken. [20.4.1.500 NMAC, incorporating 40 CFR 264.196(d)(3)].

4.6.~~3~~4 Certification Reporting after Major Repairs

The Permittee shall submit to the Secretary, within seven (7) days after returning a tank storage system to use, the certification of major repairs to correct leaks required at Permit Condition 4.4.3. [20.4.1.500 NMAC, incorporating 40 CFR 264.196(f)].

4.6.5 40 CFR 264, Subpart BB Records

The Permittee shall record in a log that is kept in the Operating Record, the results of the determination of exemption from the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264, Subpart BB, conducted in accordance with Permit Condition 5.4.3 and other information required in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1064(k) and/or 264.1064(m).

4.6.6 40 CFR 264, Subpart CC Records

The Permittee shall prepare and maintain in the Operating Record for a minimum of three years, the information used for each waste determination required at Permit Condition 5.4.4 (e.g., test results, measurements, calculations, and other documentation) in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1089(a), 264.1089(f)(1), and/or 264.1089(h).

4.6.7 Reporting Noncompliance - 40 CFR 264, Subpart CC

The Permittee shall report to the Secretary each occurrence when the average volatile organic concentration of any hazardous waste placed in a tank that does not meet the requirements of Permit Conditions 4.1.4.b and 4.1.4.c is greater than or equal to 500 ppmw or is unknown, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1090(a).

4.7 SPECIAL PROVISIONS FOR IGNITABLE OR REACTIVE WASTES

4.7.1 Procedures for Ignitable and Reactive Waste

The Permittee shall not place ignitable or reactive waste in a tank storage system unless the procedures specified at Permit Attachment A, Sections 2.3.5 and 2.4.5, Management of Ignitable and Reactive Wastes, and Permit Attachment B, ~~Precautions to Prevent Hazards~~, Section 5.5.1, *Precautions to Prevent Ignition or Reaction of Ignitable, Reactive, or Incompatible Wastes*, are followed. [20.4.1.500 NMAC, incorporating 40 CFR 264.17(b) and 264.198(a)]

4.7.2 Protective Distance

The Permittee shall comply with the requirements for the maintenance of protective distances between a tank and any adjoining property line that can be built upon as specified at Permit Attachment A, Sections 2.3 and 2.4, as required at Tables 2-1 through 2-6 of the National Fire Protection Association's Flammable and Combustible Liquids Code (latest edition), in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.198(b).

4.8 SPECIAL PROVISIONS FOR INCOMPATIBLE WASTES

4.8.1 Waste Incompatibility

The Permittee shall not place incompatible wastes, or incompatible wastes and materials, in the same treatment tank system, or allow incompatible wastes to commingle in the same secondary containment system, unless the compatibility of the new waste type with prior contents of the tank is determined by testing or process knowledge documented in the Operating Record, as specified at Permit Attachment A, Sections 2.3.2 and 2.4.2, *Management of Incompatible Wastes*, and Permit Attachment B,

~~Precautions to Prevent Hazards,~~ Section 5.5.3, *Incompatible Waste Handling*, and Permit Attachment F1, Section 4.5.5.1, waste analysis requirements specific to stabilization tanks. [20.4.1.500 NMAC, incorporating 40 CFR 264.17(b) and 264.199(a)].

4.8.2 Tank Decontamination

The Permittee shall not place hazardous waste in a tank system that previously held an incompatible waste or material and has not been decontaminated, unless the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264.17(b) are met, as specified at Permit Attachment A, Sections 2.3.2 and 2.4.2. [20.4.1.500 NMAC, incorporating 40 CFR 264.199(b)].

4.9 CLOSURE AND POST-CLOSURE CARE

4.9.1 Closure Plan

At closure of the treatment tank systems, the Permittee shall remove all hazardous waste and hazardous waste residues from the Liquid Tank Storage Area and the Stabilization Building, shall follow the procedures for clean closure contained at Permit Attachment O, Closure Plan, Sections 8.1.3, Liquid Waste Receiving and Storage Unit, and 8.1.4, Stabilization Unit, and shall otherwise comply with the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264.197.

4.9.2 Amended Closure Plan and Post-Closure Care Plan for Contaminated Soil Left in Place

If the Permittee demonstrates that not all contaminated soils can be practically removed from or decontaminated at the Tank Areas in accordance with Permit Attachment O, then the Permittee shall, through Permit modification, prepare and submit to the Secretary for approval an amended Closure Plan and prepare and submit a Post-Closure Care Plan to close the tank system(s) and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills, and shall otherwise comply with the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264.197(b).

TABLE 4-1

PERMITTED LIQUID WASTE STORAGE TANKS

UNIT	DIMENSIONS	MAXIMUM ALLOWABLE CAPACITY
Liquid Waste Storage Tank No. 1; Storage Tank Area pad; ancillary equipment	10 feet by 16 feet (diameter)	9,000 gallons
Liquid Waste Storage Tank No. 2; ancillary equipment	10 feet by 16 feet (diameter)	9,000 gallons
Liquid Waste Storage Tank No. 3; ancillary equipment	10 feet by 16 feet (diameter)	9,000 gallons
Liquid Waste Storage Tank No. 4; ancillary equipment	10 feet by 16 feet (diameter)	9,000 gallons
TOTAL		36,000 gallons

TABLE 4-2

PERMITTED TREATMENT TANKS

UNIT	DIMENSIONS	MAXIMUM ALLOWABLE CAPACITY
Stabilization Bin No. 1; secondary containment; ancillary equipment; vault	25 feet by 10 feet by 10 feet	~2,500 ft^3
Stabilization Bin No. 2; secondary containment; ancillary equipment	25 feet by 10 feet by 10 feet	~2,500 ft^3
Stabilization Bin No. 3; secondary containment; ancillary equipment	25 feet by 10 feet by 10 feet	~2,500 ft^3
Stabilization Bin No. 4; secondary containment; ancillary equipment	25 feet by 10 feet by 10 feet	~2,500 ft^3
TOTAL		~10,000 ft^3

PERMIT ATTACHMENTS REFERENCED IN PART 4

Permit Attachment	Document or Plan
A	General Facility Description and Information
B	Procedures to Prevent Hazards
D	Inspection Procedures
D1	Inspection Schedules and Checklists
E	Personnel Training and Records
F	Waste Analysis Plan
G	Air Quality
L	Engineering Report and Drawings
N	Operations and Maintenance Plan
O	Closure Plan

PERMIT PART 5

TREATMENT IN THE SURFACE IMPOUNDMENT

HIGHLIGHTS

This Part contains conditions for treatment by evaporation of hazardous waste in the Surface Impoundment at the Triassic Park Hazardous Waste Disposal Facility (the Facility). Evaporation is the only treatment method permitted in the Surface Impoundment. The location of the Surface Impoundment within the Facility is shown at Permit Attachment L, *Engineering Report and Drawings*, Drawing No. 4. Surface Impoundment operations are described at Permit Attachment A, *General Facility Description and Information*, Section 2.6.4, *Operation of the Evaporation Pond*; and Permit Attachment L, Section 4.0, *Evaporation Pond*.

Permitted waste that can be treated in the Surface Impoundment is identified at Table 2-1, *Permitted Hazardous Wastes*. The Surface Impoundment is permitted to treat non-ignitable liquids with polychlorinated biphenyl (PCB) concentrations of less than 50 parts per million (ppm); this waste is not regulated under the Toxic Substances Control Act (TSCA). The Surface Impoundment is also permitted to treat, under certain conditions, bulk PCB-contaminated remediation waste. Waste that is prohibited from treatment in the Surface Impoundment is identified at Permit Condition 5.1.2. Hazardous waste that does not meet Land Disposal Restrictions (LDR) treatment standards is not permitted to be placed in the Surface Impoundment. In addition, the Facility will not treat waste in the Surface Impoundment that would require compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264, Subparts BB and CC.

This Permit authorizes only Phase I of Facility treatment by evaporation, shown at Permit Attachment L, Drawing No. 28. As shown in Table 5-1, Phase I consists of one Surface Impoundment comprised of two cells, Ponds IA and IB, with a combined approximate capacity of 5.2 million gallons and an area of approximately 75,240 square feet. The Surface Impoundment is considered one permitted unit.

ponds are separated by a dike (berm) and can be independently filled or drained. A transfer pump is located on the separator berm, and the contents of one pond can be transferred to the other pond if necessary in order to locate and repair a liner leak. Each pond is equipped with its own discharge station.

Phase II, consisting of two additional ponds, may be constructed in the future to provide additional leachate storage and treatment capacity should demand for pond treatment capacity increase beyond that provided in Phase I.

The Surface Impoundment receives waste from off-site generators, from on-site leachate collection systems, and from other activities at the Facility which may generate hazardous waste.

The Surface Impoundment liner system consists of a primary geomembrane liner above a geonet layer and a secondary geomembrane liner. A leak detection and removal system (LDRS) for detecting and removing leachate is located in the geonet layer between the two liners. One LDRS sump is located in the center of each pond. Leachate collected in the sump is pumped to a tanker truck and returned to the Surface Impoundment, stored in the Leachate Storage Tank prior to stabilization, or transferred to the Stabilization Unit prior to disposal in the Landfill.

The vadose zone monitoring system (VZMS) for the Surface Impoundment consists of two vadose zone sumps, one for each pond, located below the secondary liner. The sumps contain pressure transducers to measure the presence and volume of fluids and pumping systems capable of removing any fluids.

Two deep vadose zone monitoring wells and a single possible shallow well, shown at Permit Attachment I, *Vadose Zone Monitoring System Work Plan (VZMS Work Plan)*, Figure No. 2, are located east of the Surface Impoundment. These wells monitor the accumulations of any escaped fluids down gradient from the Surface Impoundment.

The VZMS is described at Part 7, *Highlights*. Corrective Action requirements for leachate from the Surface Impoundment to the VZMS are contained at Part 10.

<u>In support of the permit conditions presented in Part 5, the Permittee shall submit the following information in accordance with Permit Condition 1.10 and Table 1-1 sixty (60) days prior to the initiation of operations at the facility:</u>

- Materials and methods that will be used to modify the compacted clay liner if testing indicates that modification will be necessary to achieve the permeability specification;
- Design and construction details for the perimeter dikes;
- Inspection of the perimeter dikes for signs of deterioration; and
- CQA certification once construction of the surface impoundment is completed.

5.1 GENERAL REQUIREMENTS FOR THE SURFACE IMPOUNDMENT

5.1.1 Permitted Treatment in the Surface Impoundment

The Permittee shall treat hazardous waste by evaporation only in the Surface Impoundment, as identified at Table 5-1, *Permitted Surface Impoundment Unit*, and as specified at Permit Attachment A, Section 2.6, *Treatment in Evaporation Pond*. —The volume of hazardous waste which may be treated is limited to the maximum capacity identified at Table 5-1, and as specified at Permit Attachment A, Section 2.6.1, *Design of Evaporation Pond*. The Permittee may treat the hazardous wastes identified in Permit Attachment A, Section 2.6.3, *Nature and Quantity of Waste*, in the Surface Impoundment subject to the terms of this Permit.

5.1.2 Prohibited Waste in the Surface Impoundment

5.1.2.a Land Disposal Restrictions

The Permittee is prohibited from treating any hazardous waste in the Surface Impoundment that does not meet the Land Disposal Restrictions (LDR) treatment standards contained in the Table at 20.4.1.800 NMAC, incorporating 40 CFR 268.40, as specified at Permit Attachment A, Section 2.6.3, *Nature and Quantity of Waste*.

5.1.2.b 40 CFR 264, Subpart BB Exemption

~~In order to maintain exemption for the Surface Impoundment from compliance with the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264, Subpart BB, as specified at Permit Attachment G, *Air Quality*, Section 11.2, *40 CFR 264 Subpart BB - Air Emission Standards for Equipment Leaks*, the Permittee shall not place in the Surface Impoundment any hazardous waste with an~~

~~organic concentration of at least ten percent by weight, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1050(b).~~

An exemption for the Surface Impoundment from compliance with the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264, Subpart BB, is specified in Permit Attachment G, *Air Quality*, Section 11.2, *40 CFR 264 Subpart BB - Air Emission Standards for Equipment Leaks*. In order to maintain this exemption, the Permittee shall comply with 20.4.1.500 NMAC, incorporating 40 CFR 264.1050(b), and not place any hazardous waste in the Surface Impoundment with an organic concentration greater than or equal to ten percent by weight.

5.1.2.c 40 CFR 264, Subpart CC Exemption

~~In order to maintain exemption for the Surface Impoundment from compliance with the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264, Subpart CC, as specified at Permit Attachment G, Section 11.3, *40 CFR Subpart CC - Air Emissions Standards for Tanks, Surface Impoundments and Containers*, the Permittee shall not place in the Surface Impoundment any hazardous waste which has an average volatile concentration at the point of waste origination equal to or greater than 500 parts per million by weight (ppmw), in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1082(c)(1).~~

An exemption for the Surface Impoundment from compliance with the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264, Subpart CC, is specified in Permit Attachment G, *Air Quality*, Section 11.3, *40 CFR 264 Subpart CC - Air Emission Standards for Tanks, Surface Impoundments, and Containers*. In order to maintain this exemption, the Permittee shall comply with 20.4.1.500 NMAC, incorporating 40 CFR 264.1082(c)(1) and not place any hazardous waste in the Surface Impoundment with an average volatile organics concentration greater than 500 parts per million by weight (ppmw).

5.2 SURFACE IMPOUNDMENT CONSTRUCTION

5.2.1 Construction Requirements

The Permittee shall construct the Surface Impoundment and liner systems, truck transfer pad, and ancillary equipment, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.221(c), and as follows:

5.2.1.a Liner System

The Permittee shall install and maintain two liners, separated by a geonet layer containing a leak detection and removal system (LDRS), to prevent releases from the Surface Impoundment~~,~~ as specified at: Permit Attachment A, Sections 2.6.1 and 2.6.2, *Construction*;~~,~~ Permit Attachment L, Section 4.0, and Drawings Nos. 28 through 32;~~,~~ Permit Attachment M, *Construction Quality Assurance Plan (CQA Plan)*;~~,~~ ~~and~~ the Permit Application, Vol. IV, Appendix C, *Specifications for Landfill, Surface Impoundment and Associated Facilities Liner and Cover System Construction*;~~,~~ and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.221(c)(1).

The Surface Impoundment liners shall include the following components, from top to bottom, constructed to prevent migration of hazardous constituents outside of the liner system:

- A~~a~~ 60-mil thick high density polyethylene (HDPE) geomembrane primary top liner as specified in the Permit Application, Vol. IV, Appendix C, Section 02775, *Geomembrane Liners*;
- A~~a~~ geonet leak detection and removal layer with transmissivity greater than or equal to 5×10^{-3} m^2/sec as specified in the Permit Application, Vol. IV, Appendix C, Section 02712, *Geonet*;
- A~~a~~ 60-mil thick HDPE secondary geomembrane liner as specified in the Permit Application, Vol. IV, Appendix C, Section 02775; and
- A~~a~~ minimum 3-foot thick compacted clay liner with a hydraulic conductivity, as constructed, of less than or equal to 1×10^{-7} cm/sec as specified in the Permit Application, Vol. IV, Appendix C, Section 02221, *Clay Liner*.~~;~~

Permit Attachment A, Section 2.6.1.1 indicates that the materials used in the clay liner may be conditioned or processed such that the permeability specifications can be met. Information on how the clay liner materials would be conditioned or processed is not included in the technical information furnished in support of this Permit. GMI shall submit information on how clay liner materials will be modified to meet the permeability specification of 1×10^{-7} cm/sec should tests show that the unmodified material cannot meet the specification. In accordance with Permit

Condition 1.10 and Table 1-1, this information should be submitted to the Secretary within 60 days prior to initiation of operation.

5.2.1.b Leak Detection and Removal System (LDRS)

The Permittee shall install and maintain an LDRS in the geonet layer to detect and remove leakage through all areas of the primary liner, as specified at: Permit Attachment A, Sections 2.6.1.2, *Leak Detection and Removal System/Vadose Monitoring System*, and 2.6.2.4, *Liner, LDRS, and Vadose System Installation*; Permit Attachment L, Section 4.1.3, *Subgrade Excavation, Liner System, LDS Sump Design and Vadose Monitoring Sump Design*, and Drawing No. 32; Permit Attachment M; ~~and the~~ Permit Application, Volume IV, Appendix C; and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.221(c)(2).

The LDRS shall include, for each Surface Impoundment pond, a centrally located sump located in the geonet layer between the primary and secondary geomembrane layers. The sumps shall consist of gravel with 12 inch piping and a 50 gallons per minute (gpm) pump with sufficient capacity to maintain less than 12 inches of head on the secondary liner~~,~~ as specified at Permit Attachment A, Section 2.6.1.2;~~,~~ and Permit Attachment L, Section 4.1.3~~,~~ and Drawing No. 32.~~;~~

5.2.1.c Dikes

The Permittee shall construct the perimeter dikes and earthen separator berm (separator dike) with sufficient structural integrity to prevent massive failure, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.221(h). The Permitte shall construct all dikes so that the dike height will allow at least two feet of freeboard above the design water elevation of 4121 feet above sea level.

5.2.1.c.i Separator Dike

~~The Permittee shall construct the earthen Surface Impoundment dike with sufficient structural integrity to prevent massive failure, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.221(h). The Permittee shall construct this separator dike so that the dike height will allow at least two feet of freeboard above the design water elevation of 4121 feet.~~ The separator dike will have sideslopes of 2H:1V, as specified at Permit Attachment L, Section 4.1.2, *Evaporation Pond Layout and Phasing*, and Drawing No. 28. The berm shall be constructed using the

construction specifications contained at the Permit Application, Vol. IV, Appendix C, including, but not limited to, Section~~Specification~~ No. 02110, *Site Preparation and Earthwork*~~,~~ and Section 02119, *Prepared Subgrade.*

5.2.1.c.ii Perimeter Dike

The perimeter dikes will have sideslopes of 3H:1V and be of height and width as specified at Permit Attachment L, Drawing No. 30. They will be constructed using the appropriate construction specifications contained at the Permit Application, Vol. IV, Appendix C.

Permit Attachment L, Drawing No. 31 shows that under the Truck Discharge Stations, the perimeter dikes are largely clay liner material. While Permit Attachment L, Drawing No. 30 implies that the other perimeter dikes are constructed of clay liner material, this is not specifically stated or illustrated in the technical information supporting this permit. GMI shall submit design and construction information, including the materials and methods of construction, for the perimeter dikes at the Evaporation Pond. In accordance with Permit Condition 1.10 and Table 1-1, this information should be submitted to NMED within 60 days prior to initiation of operation.

5.2.1.d Discharge Pads

The Surface Impoundment Discharge Pads shall be constructed as specified at: Permit Attachment A, Section 2.6.4.2, *Placement of Wastewater into the Evaporation Pond*; ~~and P~~Permit Attachment L, Section 4.1.4, *Evaporation Pond Discharge Pad Arrangement*, and Drawing No. 31; and the Permit Application, Vol. IV, Appendix C.

5.2.1.e Vadose Zone Monitoring System

The Permittee shall install and maintain a vadose zone monitoring system (VZMS) below the Surface Impoundment liners to detect and remove leakage through all areas of the secondary liner~~,~~ as specified at: Permit Attachment A, Section 2.6.2.4; Permit Attachment I~~, *Vadose Zone Monitoring System Work Plan (VZMS Work Plan)*,~~ Section 2.0, *Vadose Zone Monitoring System Installation*; and Permit Attachment L, Section 4.1.3~~,~~ and Drawing No. 32.~~;~~

5.2.1.f Vadose Zone Monitoring Wells

The Permittee shall construct the Vadose Zone Monitoring Wells as specified at Permit Conditions ~~7.1.4~~7.2.2.a and 7.2.2.b,~~;~~ and

Permit Attachment I, Section 2.2.2, *Vadose Zone Monitoring Well Construction.*

5.2.1.g Run-On/Run-Off Control

The Permittee shall construct and maintain run-on/run-off controls for the Surface Impoundment as specified at: Permit Attachment B, *Procedures to Prevent Hazards*, Section 5.4.2.2, *The Landfill and Evaporation Pond;* Permit Attachment L, Section 2.1.4, *Facility Storm Water Control*, ~~;~~ and Drawing No. 25; and Permit Attachment N, *Operations and Maintenance Plan*, Section 2.2, *Evaporation Pond.*

5.2.2 CQA Plan

The Permittee shall implement Permit Attachment M under the direction of a CQA officer who is a professional engineer registered in New Mexico to ensure that all construction required under Permit Condition 5.2.1 meets or exceeds all design criteria and specifications of this Permit, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.19(a) through 264.19(c).

5.3 GENERAL OPERATING REQUIREMENTS FOR THE SURFACE IMPOUNDMENT

The Permittee shall operate and maintain the Surface Impoundment in accordance with Permit Attachment A, Section 2.6.4.3, *Inspections, Monitoring, and Repairs;* Permit Attachment L, Section 4.1.2; and Permit Attachment N, Section 3.5, *Evaporation Pond Operation.* ~~;~~ Operation and maintenance shall comply~~and in compliance~~ with 20.4.1.500 NMAC, incorporating 40 CFR 264, Subpart K, ~~;~~ and the conditions set forth in this Permit.

5.3.1 Overtopping Prevention

The Permittee shall operate and maintain the Surface Impoundment to prevent overtopping, as specified at Permit Attachment A, Section 2.6.4.3; and ~~and~~ Permit Attachment L, Section 4.1.2; and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.221(g).

5.3.2 ~~Separator~~ Dike Maintenance

The Permittee shall maintain the perimeter and separator dikes as stated in Permit Attachment A, Section 2.6.4.3 and Permit

Attachment N, Section 3.5.5; and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.221(h).

GMI shall revise Permit Attachment N, Section 3.5.5, item I, to state that in addition to the separator dike (evaporation pond berm), the perimeter dikes will be checked for signs of deterioration. In accordance with Permit Condition 1.10 and Table 1-1, this information should be submitted to NMED within 60 days prior to initiation of operation.

5.3.3 Protective Netting

The Permittee shall ensure that protective netting in good condition is maintained over the Surface Impoundment to protect the bird life of the area~~,~~ as specified at Permit Attachment A, Section 1.2, *Site Environment and Climate*, and shown at Permit Attachment L, Drawing No. 30.

5.3.4 Waste Placement and Removal

The Permittee shall ensure that waste is placed in and removed from the Surface Impoundment as specified at Permit Attachment L, Section 4.1.4, and Permit Attachment N, Section 3.5.3, *Waste Placement*.

5.3.5 Leachate Management

If leachate collected from the leak detection systems at the Surface Impoundment meets LDR treatment standards for F039 waste, it may be retreated in the Surface Impoundment or may proceed directly to stabilization. Collected leachate that does not meet LDR treatment standards shall be treated in the stabilization unit or shipped off-site to a permitted hazardous waste management facility. If, after treatment, the leachate cannot meet LDR standards~~ after treatment~~, the Permittee shall ship the leachate off-site to a permitted hazardous waste management facility~~,~~ in compliance with all applicable regulations for generation and transport of hazardous waste.

5.4 WASTE ANALYSIS

5.4.1 Waste Characterization

The Permittee shall conduct a waste analysis for waste entering and leaving the Surface Impoundment as specified at Permit Attachment F1 and F2, *Waste Analysis Plan*, Sections 4.4~~.3~~,~~,~~

Procedures for Incoming Waste Acceptance, and 4.5.5.3, *Waste Aanalysis Rrequirements Sspecific to the Eevaporation Ppond*, to ensure that the waste management requirements specified at Permit Attachment F1, Section 4.2, *Criteria for Waste Management at the Facility*, are met.

5.4.2 Sampling Plan for the Surface Impoundment

The Permittee shall include a Sampling Plan for the Surface Impoundment in the Facility Sampling Plan required under Permit Condition 2.5.3. The Surface Impoundment Sampling Plan shall: include details of sludge removal;~~,~~ ~~and~~ sampling requirements for sludge upon removal;~~,~~ sampling requirements~~and~~ for any liquid ~~which may be~~ removed from the Surface Impoundment; and ~~shall~~ establish appropriate Data Quality Objectives for sampling. Data Quality Objectives shall be established for the ~~sampling,~~ methods of determining sample locations, the ~~and~~ number of samples required for sludges and liquids, the types~~kind~~ of samples taken (grab or composite), and the frequency of sampling.

5.4.3 Waste Analysis to Determine 40 CFR 264, Subpart BB Exemption

The Permittee shall make a determination of compliance with Permit Condition 5.1.2.b~~a~~ in accordance with Permit Attachment F2, Section 4.5.1.3, *Additional Aanalysis to Eensure Ceompliance with Rregulatory and Ooperational Llimits*, and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1063(d).

~~Alternatively,~~ T~~t~~he Permittee may elect to demonstrate compliance with Permit Condition 5.1.2.b through compliance with a New Source Air Emissions Permit,~~,~~ to the extent that the documentation required under the New Source Air Emissions Permit duplicates the documentation required under this Permit Condition, in accordance with 204.1.500 NMAC, incorporating 40 CFR 264.1064(m)~~, in accordance with 204.1.500 NMAC, incorporating 40 CFR 264.1064(m)~~.

5.4.4 Waste Analysis to Determine 40 CFR 264, Subpart CC Exemption

5.4.4.a Determination of Exemption

The Permittee shall make an initial determination of compliance with Permit Condition 5.1.2.c~~b~~ in accordance with Permit Attachment F2, Section 4.5.1.3; and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1083(a)(2). The initial

determination shall be made before the first time a waste stream is placed in the Surface Impoundment~~,~~ and, thereafter, the determination for that waste stream shall be repeated once every 12 months following the date of the initial determination,~~,~~ in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1082(c)(1).

~~Alternatively, T~~the Permittee may elect to demonstrate compliance with Permit Condition 5.1.2.c~~b~~ through~~by documentation of~~ compliance with a New Source Air Emissions Permit,~~,~~ to the extent that the documentation required under the New Source Air Emissions Permit duplicates the documentation required under this Permit Condition,~~,~~ in accordance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1089(h).

5.4.4.b Determination of 40 CFR 264, Subpart CC, Exemption after Process Change

The Permittee shall perform a new waste determination of compliance with Permit Condition 5.1.2.c~~b~~ for a waste stream to be placed in the Surface Impoundment whenever changes to the source generating the waste stream are ~~reasonably~~ likely to cause the average volatile organic concentration of the hazardous waste to increase to a level that is equal to or greater than the applicable volatile organic concentration limit specified at Permit Condition 5.1.2.c~~b~~, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1082(c)(1)~~1083(1)(ii)~~.

5.4.4.c Waste Determination Procedures for 40 CFR 264, Subpart CC Exemption

The Permittee shall conduct the waste determination required at Permit Conditions 5.4.4.a and 5.4.4.b in accordance with the procedures specified at Permit Attachment F2, Sections 4.5.1.3 and 4.5.5.3~~, *Additional analysis to ensure compliance with regulatory and operational limits*,~~ and in compliance with 20.4.1.500 NMAC, incorporating ~~40 CFR 265.1084(a)(2) through 265.1084(a)(4). [20.4.1.500 NMAC, incorporating~~ 40 CFR 264.1083(a)(2)~~]~~.

5.4.4.d Waste Determination by the Secretary

The Secretary may at any time perform, or request that the Permittee perform, ~~for a hazardous waste which will be placed in the Surface Impoundment,~~ a waste determination of the average volatile organic concentration of a hazardous waste which will be placed in the Surface Impoundment~~ the waste~~ using direct

measurement in accordance with the applicable requirements of 204.1.500 NMAC, incorporating 40 CFR 264.1082(d)~~1083(a)~~.

5.4.5 Leachate

5.4.5.a LDRS and VZMS Sampling and Analysis

The Permittee shall sample and analyze the leachate collected from the Surface Impoundment LDRS and VZMS sumps in accordance with Permit Condition~~s~~ 5.6.2~~.a and 5.6.2.b~~ for all the multi-source leachate (EPA Hazardous Waste Number F039) constituents listed in the Table contained at 20.4.1.800 NMAC, incorporating 40 CFR 268.40. In addition, the results shall be used to determine if the leachate may be managed in units exempt from the organic emission control requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264, Subpart CC. Sampling and analysis shall be performed~~,~~ as specified at Permit Attachment F2, Section~~s~~ 4.5.1.2, *Additional A~~a~~nalysis to E~~e~~nsure C~~c~~ompliance with the LDR T~~t~~reatment S~~s~~tandards*, and Attachment F1, Section 4.5.6, *Waste Analysis Requirements for Waste Generated On-Site*.

5.4.5.b VZMS Well Sampling and Analysis

The Permittee shall sample and analyze any~~the~~ leachate ~~(if any)~~ collected from the VZMS wells~~,~~ as specified at Permit Attachment F1, Section 4.5.6, *Waste Analysis Requirements for Waste Generated On-Site*. Sample and analysis of collected well leachate shall be performed over the time period specified in ~~and in accordance with~~ Permit Condition 7.1.4.

~~5.5~~ MANAGEMENT OF LEAKS OR SPILLS

5.5.1 Spills and Releases to the Surface

The Permittee shall ensure that spills and releases to the surface environment are contained and remediated in a timely manner. Upon detection of a spill or release from the Evaporation Pond to the surface environment, the Permittee shall make a determination of the appropriate response in accordance with Permit Attachment A, Section 2.6.4.3 and Permit Attachment C, *Contingency Plan*, Section 6.3.5.2, *Spills, Leaks, or Other Releases Control Procedure*.

If in responding to a spill or release the Permittee determines that the Contingency Plan presented in Permit Attachment C should be implemented, implementation shall comply with Permit Attachment C, Section 6.3, *Implementation Procedures*.

All analyses to determine the nature and concentration of the spilled or released waste constituents shall be performed in accordance with Permit Attachment F1, Section 4.5.6. All recovered spilled or released material along with other hazardous wastes generated in addressing the release shall be managed as specified at Permit Attachment C, Section 6.3.7, *Storage and Treatment of Released Hazardous Waste.*

5.5.2 Leachate Management

The Permittee shall completely remove all fluids from each sump in the LDRS and from the VZMS sump in a timely manner, as specified at Permit Attachment I, Section 4.0, *Monitoring Procedures;* and Permit Attachment N~~J~~, Section 3.5.4, ~~*R*~~*Operation of Leachate Detection and Vadose Zone Monitoring Systems*~~*esponse Action Plan (RAP), Section 2.6.4.8, Response Action Plan*~~. The Permittee shall conduct a waste analysis of the removed fluids as specified at Permit Attachment F1, Section 4.5.6~~;~~ and treat and/or dispose of the removed liquids as specified at Permit Attachment F2, Section~~s~~ 4.5.1.2~~, *Additional analysis to ensure compliance with the LDR treatment standards*, and 4.5.5.3~~.

5.5.3 Action Leakage Rate

The Action Leakage Rate (ALR) for the Surface Impoundment is 1,000 gallons per acre per day (gpad) as measured in the LDRS sumps for both ponds, and~~as~~ specified at Permit Attachment A~~J~~, Section 2.6.4.7, *Action Leakage Rate.*

To determine if the ALR has been exceeded, the Permittee shall calculate and record the average daily flow rate to each LDRS sump on a weekly basis during the active life and closure period of the Surface Impoundment, as specified at Permit Attachment J, *Response Action Plan (RAP)*, Section 5.4~~2.6.4.7~~, *Determination if the Action Leakage Rate is Exceeded,* and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.222(b).

5.5.4 Flow Rates Less than or Equal to the ALR

The Permittee shall respond to leakage less than or equal to the ALR as specified at Permit Attachment A~~J~~, Section 2.6.4.8, *Response Action Plan*.

5.5.5 Flow Rates Greater than the ALR

The Permittee shall respond to leakage greater than the ALR as specified at Permit Attachment A~~J~~, Section 2.6.4.8~~;~~ and in

compliance with all requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264.223(b)(3) through 264.223(b)(5) and 264.223(c). In addition, the Permittee shall respond to leakage greater than the ALR by complying with the following conditions, as specified at Permit Attachment I, Section 4.2, *Response Actions*:

5.5.5.a Removal of Pond from Service

The Permittee shall immediately remove from use the pond which is leaking in exceedance of the ALR.~~; and~~

5.5.5.b VZMS Sampling

The Permittee shall immediately inspect each monitoring point in the VZMS for fluids as specificed at~~in accordance with~~ Permit Condition 7.4.1.b~~7.5.1.a~~. In addition, the Permittee shall increase the frequency of inspection of the VZMS wells from monthly to weekly in accordance with Permit Condition 7.4~~5~~.1.b.

5.5.6 Response to Sudden Drop of Liquid Level

In the event of a sudden drop in the liquid level of one of the Surface Impoundment ponds that is not known to be caused by changes in the flow into or out of that pond, ~~or~~ expected evaporation rates, ~~(~~or ~~if the separator~~ dike leaks~~)~~, the Permittee shall remove the leaking (or impacted) pond from service immediately~~,~~ and complete the following actions~~,~~ as specified at Permit Attachment C, *Contingency Plan*, Section 6.3.5.3, *Evaporation Pond Failure Control Procedure*, and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.227(a) and 264.227(b):

- Immediately shut off the flow or stop the addition of wastes into the leaking (or impacted) pond;
- Immediately contain any surface leakage which has occurred or is occurring;
- Immediately stop the leak;
- Take any necessary steps to stop or prevent catastrophic failure; and
- If a leak cannot be stopped by any other means, empty the leaking (or impacted) pond.

5.5.7 Return of Surface Impoundment to Service

If one of the Surface Impoundment ponds has been removed from service pursuant to Permit Conditions 5.5.5~~4~~.a or 5.5.6~~5~~, it may be returned to service only if the portion of the pond which was failing has been repaired and the repair recertified in accordance with Permit Conditions 5.7.3.b and 5.7.3.c.

5.5.8 Closure in Lieu of Repair

If one of the Surface Impoundment ponds has been removed from service in accordance with Permit Condition 5.5.6~~5~~ and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.227,~~,~~ and is not being repaired, the Surface Impoundment shall be closed as specified at Permit Attachment O, *Closure Plan*, Section 8.1.2, *Evaporation Pond*,~~,~~ and other applicable sections.~~;~~ Closure shall be ~~and~~ in accordance with Permit Conditions 2.17 and 5.10~~;~~ and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.228.

5.6 INSPECTION SCHEDULES AND PROCEDURES

5.6.1 Inspection Requirements

~~5.6.1.a~~ General Inspection Requirements

The Permittee shall inspect the Surface Impoundment, liner and leachate systems, and ancillary equipment as specified at Permit Attachment D, *Inspection Procedures*,~~,~~ Section 5.2.3, ~~–~~*Evaporation Pond Inspection Procedures*,~~,~~ and Appendix D1, *Inspection Schedules and Checklists*; and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.226.

The Permittee shall maintain inspection logs and checklists in accordance with Permit Condition 2.7.

5.6.1.b Inspection D~~d~~uring Construction

The Permittee shall inspect the Surface Impoundment liners and cover systems during construction and installation for uniformity, drainage, and imperfections (e.g., holes, cracks, thin spots, or foreign materials)~~,~~ in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.226(a).

5.6.1.c Inspection Aafter Construction

The Permittee shall inspect the Surface Impoundment immediately after construction. This inspection shall address~~include~~ the following in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.226(a~~b~~):

- S~~s~~ynthetic liners and covers to ensure tight seams and joints and the absence of tears, punctures, or blisters; and

- S~~s~~oil-based and admixed liners and covers for imperfections including lenses, cracks, channels, root holes, or other structural non-uniformities that may cause an increase in the permeability of the liner or cover.

5.6.1.d Inspections D~~d~~uring Facility Operation

The Permittee shall inspect the Surface Impoundment, discharge pads, dikes, and ancillary equipment weekly and after storms, as specified at: Permit Attachment A, Section 2.6.4.3; Permit Attachment D, *Inspection Procedures*, Section 5.2.3~~,~~ and Appendix D1; Permit Attachment N, Section 3.5.5, *Inspection and Monitoring*; and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.226(b).

5.6.2 LDRS and VZMS Monitoring Requirements

~~5.6.2.a LDRS and VZMS Monitoring Procedures~~

The Permittee shall monitor each sump in the LDRS and VZMS daily and the vadose zone wells monthly for the presence of liquids during the active life and closure period of the Surface Impoundment~~,~~ as specified at: Permit Attachment A, Sections 2.6.1.2 and 3.7.2, *Vadose Zone Monitoring Requirements;* Permit Attachment I, Sections 4.1, *Monitoring Frequency,* and 4.3, *Monitoring Method*, and Table 2; and Permit Attachment N, Section 3.5.4, *Operation of Leachate Detection and Vadose Zone*.

The vadose zone wells shall continue to be monitored quarterly~~semi-annually~~ for the presence of liquids during the post-closure care period, as specified at Permit Attachment P, *Post-Closure Care Plan*, Section 8.2.5, *Vadose Zone Monitoring System*.~~xxx.~~

If liquids are present, the Permittee shall sample and analyze the liquids as specified at~~in~~ Permit Attachment F1, Section

4.5.6. The Permittee shall remove and properly dispose of all remaining liquids~~,~~ as specified at Permit Attachment I, Section 4.2.

5.7 RECORDKEEPING AND REPORTING

5.7.1 Recordkeeping Requirements

The Permittee shall follow the recordkeeping requirements for the Surface Impoundment specified at Permit Attachment N, Section 3.5.1, *Records*. Records kept shall include, but are not limited to:

5.7.1.a Inspection Logs

In accordance with Permit Condition 2.7.2, t~~T~~he Permittee shall keep in the Operating Record for a minimum of three years the inspection logs and other records for the inspections conducted in accordance with Permit Condition 5.6.1.c~~, in accordance with Permit Condition 2.7.1,~~ and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.15(d) and 40 CFR 264.73(b)(5).~~;~~

5.7.1.b LDRS and VZMS Data

The Permittee shall keep records for the LDRS and VZMS monitoring conducted as specified in ~~accordance with~~ Permit Condition 5.6.2, including a record of the amount of liquids removed during the active life and closure period of the Surface Impoundment, in accordance with Permit Condition 2.12.1.j.i~~,~~ and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.226(d)(1).~~;~~

5.7.1.c 40 CFR 264, Subpart BB Records

The Permittee shall record in a log that is kept in the Operating Record, the results of the determination of exemption from the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264, Subpart BB, conducted in accordance with Permit Condition 5.4.3~~,~~ and other information required in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1064(k) and/or 264.1064(m).~~; and~~

5.7.1.d 40 CFR 264, Subpart CC Records

The Permittee shall prepare and maintain in the Operating Record for a minimum of three years, the information used for each waste determination required at Permit Condition 5.4.4 (e.g., test results, measurements, calculations, and other documentation) in

compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1089(a), 264.1089(f)(1), and/or 264.1089(h).

5.7.2 Reporting and Notification Requirements

5.7.2.a Notification of Sudden Drop in a Pond Liquid Level

The Permittee shall submit the following information to the Secretary upon determination of a sudden drop in the liquid level of a Surface Impoundment pond:~~, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 270.30(l)(6):~~

5.7.2.a.i Oral R~~r~~eport

The Permittee shall make an oral report to the Secretary within 24 hours of becoming aware of a sudden drop in the liquid level of a Surface Impoundment pond,~~,~~ as specified at Permit Attachment C, *Contingency Plan, Section* 6.3.5.3, *Evaporation Pond Failure Control Procedure,* and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 270.30(l)(6)(i) and (ii).

5.7.2.a.ii Written R~~r~~eport

The Permittee shall notify the Secretary in writing, within seven days of detecting either a leak in the Surface Impoundment dikes or a sudden drop in the liquid level, if the drop is not caused by changes in the flows into or out of the Surface Impoundment or expected evaporation rates, as specified at Permit Attachment C, Section 6.3.5.3,~~,~~ and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.227(b)(6).

5.7.2.b Notification after ALR Exceeda~~a~~nce

The Permittee shall submit the following information to the Secretary after becoming aware of an exceeda~~a~~nce of the ALR for the Surface Impoundment:

5.7.2.b.i Written N~~n~~otification of ALR E~~e~~xceeda~~a~~nce

The Permittee shall notify the Secretary in writing of an exceedance of the ALR at the Surface Impoundment within seven days of determination of the exceedance, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.223(b)(1);~~;~~

5.7.2.b.ii Preliminary assessment

The Permittee shall submit a preliminary written assessment, containing the information required at 20.4.1.500 NMAC, incorporating 40 CFR –264.223(b)(2), to the Secretary within 14 days after determination of the exceedance~~, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.223(b)(2)~~; and

5.7.2.b.iii Data submittal

The Permittee shall submit to the Secretary the results of analyses and any other information required under 20.4.1.500 NMAC, incorporating 40 CFR 264.223(b)(6), the results of actions taken, and actions planned, within 30 days after the written notification required at Permit Condition 5.7.2.a(ii).

5.7.2.c Noncompliance with the 40 CFR 264, Subpart CC Exemption

The Permittee shall report to the Secretary each occurrence, within 15 calendar days of the time that the Permittee becomes aware of the occurrence, of the placement of~~whenever~~ hazardous waste ~~is placed~~ in the Surface Impoundment that does not comply~~in noncompliance~~ with the exemption contained at Permit Condition 5.1.2.c~~4.3.3~~ from the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264, Subpart CC;~~,~~ as specified at Permit Attachment G, Section 11.3.7.2~~,~~ and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.1090(a).

5.7.3 Certifications

5.7.3.a Surface Impoundment CQA Certification

In compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.19(d)~~Prior to the initiation of operations at the Facility~~, the Permittee shall submit a certification to the Secretary prior to the initiation of operations at the Facility~~ signed by the CQA officer~~. The certification shall show t~~T~~hat the approved CQA Plan has been successfully carried out and that the Surface Impoundment meets all regulatory requirements in accordance with Permit Conditions 1.5.8~~9~~.c.i and 1.10~~, in accordance with Permit Conditions 1.5.9.c.i and 1.10, and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.19(d)~~. The certification shall be signed by the CQA officer and also~~ also~~ attest that the Secretary's inspection, provided for at Permit Condition 1.5.8~~9~~.c.ii, has been either completed or waived. The Permittee shall furnish documentation supporting this certification to the

Secretary upon request. In accordance with Permit Condition 1.10 and Table 1-1, this certification should be submitted to ~~NMED~~ the Secretary within 60 days prior to initiation of operation.

5.7.3.b Dike Recertification

If one of the Surface Impoundment ponds is removed from service for more than six months, ~~then, prior to returning the pond to service,~~ the Permittee shall obtain a certification from a qualified, professional engineer registered in New Mexico prior to returning the pond to service that the Surface Impoundment dikes, including that portion of the dikes that provides freeboard, has structural integrity, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.226(c).~~,~~ The Permittee ~~and~~ shall submit the certification to the Secretary.

The certification shall establish that the dike:

- W~~w~~ill withstand the stress of the pressure exerted by the types and amounts of wastes to be placed in that pond; and
- W~~w~~ill not fail due to scouring or piping, without dependence on any liner system included in the Surface Impoundment construction.

5.7.3.c Recertification of Liner

If one of the Surface Impoundment ponds is removed from service as the result of a sudden drop in the liquid level due to liner failure~~,~~ and the liner has been repaired, the Permittee shall not return that pond to service until the repaired liner system has been recertified by a qualified, professional engineer registered in New Mexico~~,~~ in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.227(d)(2), and the recertification has been submitted to the Secretary.

5.8 SPECIAL PROVISIONS FOR IGNITABLE OR REACTIVE WASTES

The Permittee shall not place ignitable and~~or~~ reactive waste in the Surface Impoundment at the same time~~,~~ as specified at Permit Attachment A, Section 2.6.4.4, *Specific Requirements for Ignitable, Reactive, and/or Incompatible Wastes*; and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.17 and 40 CFR 264.229.

5.9 SPECIAL PROVISIONS FOR INCOMPATIBLE WASTES

The Permittee shall ensure that incompatible wastes, or incompatible wastes and materials, are not placed in the Surface Impoundment at the same time~~,~~ as specified at Permit Attachment A, Section 2.6.4.4; and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.17(b) and (c) and 40 CFR 264.230.

5.10 CLOSURE AND POST-CLOSURE CARE

The Permittee shall conduct closure activities in compliance with Permit Attachment O, Section 8.1.2, and other pertinent sections; and in accordance with Permit Condition 2.17 and Permit Part 8; and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.228. The Permittee shall follow the time frame for closure specified at Permit Appendix O1, *Schedule for Closure*.

5.10.1 Performance Standards

The Permittee shall close the Surface Impoundment so as to meet the general closure performance standard contained at 20.4.1.500 NMAC, incorporating 40 CFR 264.111 and the clean closure performance standard specified at Permit Attachment O, Section 8.3, *Closure Performance Standard*. Clean closure is achieved when waste analyses of potentially contaminated materials do not detect the presence of hazardous waste or hazardous constituents ~~and any hazardous waste or hazardous constituent~~ in soils or fluids ~~is not~~ above background concentrations. Background concentrations shall be determined by the methods presented in Permit Attachment I, Appendices I1, *Background Concentrations for Soils*, and Appendix I2, *Background Concentrations for Ground Water*.

5.10.2 Decontamination

At closure of the Surface Impoundment, the Permittee shall remove or decontaminate all waste residues, contaminated containment systems and LCRS and VZMS components, contaminated subsoils, and any contaminated structures and equipment~~,~~ as specified at Permit Attachment O, Section 8.1.2.3, *Removal and Disposal of Liner and Leachate Collection System*; and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.228(a).

5.10.3 Removal of Hazardous Waste

At closure of the Surface Impoundment, the Permittee shall eliminate free liquids by evaporation of the liquid wastes and solidification of all remaining hazardous wastes and hazardous waste residues~~,~~ as specified at Permit Condition O, Sections 8.1.2.1, *Removal of Liquid Waste*, and 8.1.2.2, *Removal and Solidification of Sludge*;~~,~~ and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.228(a)(2)(i).

5.10.4 Confirmatory Sampling

At closure of the Surface Impoundment, the Permittee shall conduct sampling as specified at Permit Attachment O, Section 8.1.2.4, *Soil Sampling*, to confirm that the closure performance standards have~~has~~ been met.

5.10.5 Restoration

At closure, the Permittee shall ensure that the Surface Impoundment area is restored to the approximate original grade~~,~~ and revegetated~~,~~ as specified at Permit Attachment O, Section 8.1.2.5, *Filling and Revegetating*.

5.10.6 Permit Modification to Permit Attachment O

If~~,~~ after closure, hazardous constituents, hazardous waste residues, or contaminated soils are left in place above background levels as specified at Permit Attachment I, Appendix I1, ~~*Background Concentrations for Soils*,~~ and~~or~~ Appendix I2, ~~*Background Concentrations for Ground Water*,~~ and the clean closure performance standard for the Surface Impoundment is not attained;~~,~~ the Permittee shall prepare and submit to the Secretary for approval, ~~within 60 days of the Permittee's determination that clean closure cannot be attained, or within 30 days if this determination occurs during partial or final closure,~~ a Permit modification request to amend Permit Attachment O by closure of the Surface Impoundment as a landfill~~,~~ in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.112(c)~~,~~ and 264.310(a). The Permit modification request shall be submitted within 60 days of the Permittee's determination that clean closure cannot be attained or within 30 days if the determination occurs during partial or final closure.

5.10.7 Permit Modification to Permit Attachment P

If~~,~~ after closure, hazardous constituents, hazardous waste residues, or contaminated materials or soils are left in place

above background levels as specified at Permit Attachment I, Appendices~~x~~ I-1 and I-2,~~,~~ and the clean closure requirement for the Surface Impoundment is not attained;~~,~~ the Permittee shall ~~also~~ prepare and submit to the Secretary for approval, a Permit modification request to amend Permit Attachment P, *Post-Closure Care Plan*, as it pertains to the Surface Impoundment, in accordance with the post-closure care requirements that apply to landfills,~~,~~ and shall otherwise comply with the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264.118(d), 264.228(b), and ~~40 CFR~~ 264.310(b). This Permit modification request shall be submitted no later than 90 days after the Permittee or Secretary has determined that the Surface Impoundment must close as a landfill.

TABLE 5-1

PERMITTED SURFACE IMPOUNDMENT UNIT[1]

CELL	DIMENSIONS (feet)	TOTAL CAPACITY (gallons)
Pond~~Cell~~ IA	285 long by 132 wide by 12 deep	2.6 million
Pond~~Cell~~ IB	285 long by 132 wide by 12 deep	2.6 million
TOTAL		5.2 million

[1] The Surface Impoundment is one permitted unit.

PERMIT ATTACHMENTS REFERENCED IN PART 5

Permit Attachment	Document or Plan
A	General Facility Description and Information
B	Procedures to Prevent Hazards
C	Contingency Plan
D	Inspection Procedures
—D1	Inspection Schedules and Checklists
F	Waste Analysis Plan
G	Air Quality
I	Vadose Zone Monitoring System Work Plan
—I1	Background Concentrations for Soils
—I2	Background Concentrations for Ground Water
J	Response Action Plan
L	Engineering Report and Drawings
M	Construction Quality Assurance Plan
N	Operations and Maintenance Plan
O	Closure Plan
—O1	Schedule for Closure
P	Post-Closure Care Plan

PERMIT PART 6

HAZARDOUS WASTE DISPOSAL IN THE LANDFILL

HIGHLIGHTS

This Part contains conditions for disposal of hazardous waste in the Landfill at the Triassic Park Hazardous Waste Disposal Facility (the Facility). Conditions include requirements for the kinds of hazardous waste which can be placed in the Landfill, Landfill capacity, liner systems, and leak detection systems. Requirements for engineering designs, Landfill operation, and response to leaks from the Landfill are also included.

The location of the Landfill is shown at Permit Attachment L, *Engineering Report and Drawings*, Drawing No. 4. Landfill operations are discussed at Permit Attachment A, *General Facility Description and Information*, Section 2.5, *Landfill*; and Permit Attachment L, Section 3.0, *Landfill*.

This Permit authorizes only Phase IA of the Landfill, shown at Permit Attachment L, Drawing No. 8. Phase IA is approximately 47 acres (outside dimensions) with a fill area of 35~~15.6~~ acres, and a capacity of approximately 553,200 cubic yards.

Phase II and Phase III of the Landfill, shown at Permit Attachment L, Drawing No. 25, are planned for future development. Reference to the Landfill in this Permit means Phase IA only. The Landfill Phase IA is considered one permitted unit.

The Landfill is permitted to receive all hazardous waste accepted at the Facility; however, all waste placed in the Landfill must meet the Land Disposal Restrictions (LDR) treatment standards contained at 20.4.1.8~~5~~00 NMAC, incorporating 40 CFR, Subpart 268. Waste is received from off-site generators, from the on-site leachate and leak collection systems, and from other activities at the Facility which generate hazardous waste.

A lined contaminated water collection basin and a lined stormwater collection basin are located immediately south of the Landfill floor, as shown at Permit Attachment L, Drawing No. 10, to collect run-off from slope areas. Both basins are considered part of the permitted Landfill unit.

The Landfill liner systems cover the entire north slope of the Landfill, the slopes below the access ramps, and most of the Landfill floor. The liners are designed to be installed in stages as the Landfill expands to cover all surrounding earth that may come in contact with waste or leachate.

The Landfill liner consists of primary and secondary systems. The primary system consists of, from top to bottom, a two-foot layer of protective soil, a geocomposite drainage layer, and a high density polyethylene (HDPE) geomembrane liner. The geocomposite drainage layer drains to a sump consisting of a pump and leachate collection piping in drainage gravel, providing a Leachate Collection~~Detection~~ and Removal System (LC~~D~~RS) to remove leachate from the Landfill. The sump is located in the floor of the geocomposite layer near the center of the Landfill.

The secondary system consists of, from top to bottom, a geocomposite drainage layer, an HDPE geomembrane liner, a geosynthetic clay liner, and six inches of prepared subgrade. A Leak Detection and Removal System (LD~~C~~RS), similar in design to the LC~~D~~RS, is located below the primary geomembrane and is designed to detect and remove leachate that passes through the primary liner system. The LDRS sump lies under the LCRS.

A vadose zone monitoring system (VZMS) consists of a sump located on a geomembrane liner. It is located below the secondary liner and under the LDRS sump. All of the sumps contain pressure transducers to measure the presence and volume of fluids. These systems are shown at Permit Attachment L, Drawing No. 17.

Leachate collected in the sumps is pumped to the Leachate Storage Tank, shown on Drawing No. 19, analyzed, and treated as necessary prior to being disposed in the Landfill.

Two vadose zone monitoring wells, shown at Permit Attachment I, *Vadose Zone Monitoring System Work Plan (VZMS Work Plan)*, Figure No. 2, are located east of the Landfill. These wells monitor the accumulations of any escaped fluids down gradient from the Landfill.

The VZMS is described in Permit Part 7. Corrective Action requirements for leakage from the Landfill to the VZMS are described in Permit Part 10.

6.1 General Requirements for the Landfill

6.1.1 Permitted Disposal in the Landfill

6.1.1.a Hazardous Waste Disposal

The Permittee shall dispose of hazardous waste only in the Landfill, as specified at Table 6-1, *Permitted Landfill Unit*, and as specified at Permit Attachment A, *General Facility Description and Information*, Section 2.5, *Landfill*. The volume of hazardous waste which may be disposed in the Landfill is limited to the maximum capacity identified at Table 6-1, and as specified as Permit Attachment A, Section 2.5.1, *Nature and Quantity of Waste*.

6.1.1.b Polychlorinated Biphenyls

The Permittee may dispose of non-ignitable liquids with polychlorinated biphenyl (PCB) concentrations of less than 500 parts per million (ppm) and bulk PCB-contaminated remediation waste in the Landfill. Disposal of any waste containing PCBs must be done in accordance with all applicable federal regulations at 40 CFR Part 761.

6.1.2 Prohibited Wastes in the Landfill

The Permittee is prohibited from placing in the Landfill any hazardous waste that does not meet the LDR treatment standards contained at 20.4.1.500 NMAC, incorporating 40 CFR 268.40.

6.2 LANDFILL CONSTRUCTION

6.2.1 Construction Requirements

The Permittee shall construct, operate, and maintain the Landfill, including liner systems, water collection basins and ditches, access ramps, and ancillary equipment in compliance with 20.4.1.8~~5~~00 NMAC, incorporating 40 CFR 264.301 and this Permit, and as follows:

6.2.1.a Landfill Excavation

The Permittee shall excavate and prepare the Landfill floor and subsurface sides as specified at Permit Attachment A, Section 2.5.2.2, *Excavation and Preparation of Landfill Bottom and*

Subsurface Sides, and Permit Attachment L, *Engineering Report and Drawings*, Drawings 7, and 8~~;~~.

6.2.1.b Liner Systems

The Permittee shall install and maintain two liners, constructed to prevent any migration of wastes out of the Landfill to the adjacent subsurface soil or ground water, as specified at Permit Attachment A, Section 2.5.1; Permit Attachment L, Section 3.0, and Drawings No. 5 through 12 and 15 through 20; Permit Attachment M, *Construction Quality Control Plan (CQA Plan)*; Permit Attachment , (the Permit Application, Vol. IV, Appendix C, *Specifications for Landfill, Surface Impoundment and Associated Facilities Liner and Cover System Construction*); **[NOTE: Steve/Stephanie, this should be a Permit Attachment which was not specified. TechLaw did not know what Permit Attachment letter to give it.]** and in compliance with 20.4.1.500 NMAC, including 40 CFR 264.301(c)(1).

The Landfill liner systems shall include the following components, from top to bottom:

- a two foot layer of protective soil;
- a geocomposite drainage layer;
- a 60-mil HDPE geomembrane liner;
- a geocomposite drainage layer;
- a 60-mil HDPE geomembrane liner;
- a geosynthetic clay liner, consisting of at least three feet of compacted clay having a permeability not greater than 10^{-7} cm/sec; and
- six inches of prepared subgrade.

The Permittee shall stage construction of the Landfill liner as specified at Permit Attachment L, Section 3.1.4, *Waste Filling Sequence*~~;~~.

6.2.1.c LCRS

The Permittee shall install and maintain an LCRS above the primary system geomembrane liner, to consist of the geocomposite LDRS drainage layer and sump, pump, and piping, to collect and remove leachate, as specified at Permit Attachment A, Section

2.5.1.3, *Leachate Collection and Removal System (LCRS)*; Permit Attachment L, Sections 3.1.3, *Subgrade Excavation, Liner System, LCRS, LDRS, and Vadose Zone Sump*, and 3.2, *Landfill Design Analyses*, and Drawings Nos. 12 and 15 through 20; Permit Attachment M; Permit Attachment , (the Permit Application, Vol. IV, Appendix C); **[NOTE: Steve/Stephanie, this should be a Permit Attachment which was not specified. TechLaw did not know what Permit Attachment letter to give it.]** and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.301(c)(2).

The sump, sump piping, slope riser pipes, crest riser pad, and vertical riser shall be constructed as specified at Permit Attachment L, Sections 3.1.3 and 3.2. The sump and pump shall have the capacity identified at Permit Attachment L, Section 3.1.3, Table 2~~,~~.

6.2.1.d LDRS

The Permittee shall install and maintain an LDRS between the primary and secondary liners, to consist of the geocomposite LDRS drainage layer and sump, pump, and piping, to detect and remove leachate through all areas of the primary liner, as specified at Permit Attachment A, Section 2.5.1.4, *Leak Detection and Removal System (LDRS)*; Permit Attachment L, Sections 3.1.3 and 3.2, and Drawings Nos. 12 and 15 through 20~~18~~; Permit Attachment M; Permit Attachment (the Permit Application, Vol. IV, Appendix C); [NOTE: Steve/Stephanie, this should be a Permit Attachment which was not specified. TechLaw did not know what Permit Attachment letter to give it.] and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.301(c)(3). The sump and pump shall have the capacity identified at Permit Attachment L, Section 3.1.3, Table 2~~,~~.

6.2.1.e VZMS

The Permittee shall install and maintain a VZMS below the Landfill liners to serve as a detection system for leakage of the LDRS, as specified at Permit Attachment A, Section 2.5.1.5, *Vadose Zone Monitoring System (VZMS)*; Permit Attachment L, Sections 3.1.3 and 3.2, and Drawings Nos. 16 through 18~~18~~; and Permit Attachment M. The sump and pump shall have the capacity identified at Permit Attachment L, Section 3.1.3, Table 2~~,~~.

6.2.1.f Access Ramps

The Permittee shall construct two 30 ft wide, 10 percent grade, access ramps from the east and west sides of the Landfill to the floor surface as specified at Permit Attachment L, Sections

2.1.3, *Facility Traffic Plan*, 3.1.2, 3.2, and 3.2.6, *Access Ramp Design*, and Drawings Nos. 10 and 14.

The Permittee shall construct an access ramp in the south waste fill slope, as discussed at Permit Attachment L, Section 3.1.4, *Waste Filling Sequence*, and shown at Drawing No. 8, with the approximate same dimensions and slope as the access ramps constructed on the north slope, when needed to provide access to the south end of the Landfill Phase IA (i.e., when lining of the south end of the Landfill Phase IA is begun).

The Permittee shall notify ~~inform~~ the Secretary in writing 60 days in advance of initiation of construction on the south access ramp~~;~~.

6.2.1.g Run-On/Run-Off Controls

6.2.1.g.i Landfill Stormwater Collection Basin

The Permittee shall construct a stormwater collection basin near the toe of the cut slope of the Landfill floor, as specified at Permit Attachment A, Section 2.5.1.6, *Run-On/Run-Off Control*; and Permit Attachment L, Sections 3.1.6, *Landfill Storm Water Control Features*, and 3.2.10, *Surface Water Drainage Analysis*, and Drawings Nos. 13, 14, and 25; and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.301(g). The stormwater collection basin shall be lined with an HDPE liner, as shown at Permit Attachment L~~A~~, Drawing No. 13.

The Permittee shall notify ~~inform~~ the Secretary in writing 60 days in advance if the stormwater collection basin is removed preparatory to the disposal of waste in the southern part of the Landfill Phase IA~~;~~.

6.2.1.g.ii Landfill Contaminated Water Collection Basin

The Permittee shall construct a contaminated water collection basin north of the stormwater collection basin on the floor of the Landfill, as discussed at Permit Attachment A~~L~~, Section~~s~~ 2.5.1.6~~3.1.6~~ and Permit Attachment L, Section 3.2.10, and shown at Permit Attachment L, Drawing No. 10, to collect possible contaminated run-off from the Landfill. The con~~m~~taminated water collection basin will be located on the Landfill liner systems.

The Permittee shall notify ~~inform~~ the Secretary in writing 60 days in advance if the Landfill Contaminated Water Basin is

removed preparatory to the disposal of waste in the southern part of the Landfill~~;~~.

6.2.1.g.iii Stormwater Collection Basin Berms

The Permittee shall construct the berm separating the stormwater collection basin and the contaminated water collection basin, and the berm on the south slope of the Landfill, as shown at Permit Attachment L, Drawings Nos. 9 and 13, with sufficient structural integrity to prevent failure, and using the construction specifications contained at ~~the~~ Permit Attachment (Permit Application, Appendix C, including Specification No. 02110, *Site Preparation and Earthwork*)~~;~~. **[NOTE: Steve/Stephanie, this should be a Permit Attachment which was not specified. TechLaw did not know what Permit Attachment letter to give it.]**

6.2.1.g.iv Perimeter Ditches

The Permittee shall construct lined perimeter ditches located on either side of the Landfill perimeter road, to intercept run-off from areas outside of the Landfill and divert this water to the Stormwater Detention Basin, as specified at Permit Attachment L, Section 3.1.6, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.301(h). The perimeter ditches shall be constructed as specified at Permit Attachment ~~Condition~~ L, Drawing No. 25 (2 of 2~~);~~).

6.2.1.g.v~~i~~ Run-On Diversion

The Permittee shall construct HDPE-lined ditches on the side of the access ramps to divert run-off from the slope areas above the access ramps to the Stormwater Collection Basin, as described in Permit Attachment A, Section 2.5.1.6 and Permit Attachment L, Section 3.1.6 and shown in Permit Attachment L, Drawings 10 and 14. The ditches shall be constructed as shown in Permit Attachment L, Drawings 13, 14, and 25 (2 of 2). The Permittee shall operate the landfill so that any runoff from the active waste filling area will drain to the Contaminated Water Basin located within the landfill as shown in Permit Attachment L, Drawing 10. ~~and from the cut slope area collect possible contaminated run-off from the slope area to the Contaminated Water Basin, as specified at Permit Attachment L, Sections 3.1.6 and 3.2.10, and shown at Permit Attachment L, Drawing No. 25, to collect possible contaminated run-off from the Landfill; and~~
~~**COMMENT: DISCUSS WITH DIANE.**~~

6.2.1h Vadose Zone Monitoring Wells

The Permittee shall construct two deep Landfill Vadose Zone Monitoring Wells in accordance with Permit Condition 7.2 ~~1.4~~.

6.2.2 CQA Program

The Permittee shall implement the *CQA Plan*, contained at Permit Attachment M, under the direction of a CQA officer who is a professional engineer registered in New Mexico, to ensure all construction required under Permit Condition 6.2 meets or exceeds all design criteria and specifications of this Permit, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.19.

6.3 GENERAL LANDFILL OPERATING REQUIREMENTS

6.3.1 Operation and Maintenance of the Landfill

The Permittee shall operate and maintain the Landfill as specified at Permit Attachment A, Section 2.5.3, *Operation*; Permit Attachment L, Sections 3.1.4 and 3.1.5, *Interim and Final Covers*; and Permit Attachment N, *Operations and Maintenance Plan*, Sections 3.4, *Landfill Operation*, and 4.1, *Landfill*, in compliance with the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264, Subpart N; and this Permit.

6.3.2 Placement of Waste in the Landfill

The Permittee shall manage the Landfill waste placement operation based on a series of grids along the north end of the Landfill and along both the east and west sides of the Landfill, as specified at Permit Attachment A, Section 2.5.3.7, *Procedures for Protecting Waste*. This three-dimensional grid system shall be used to place waste in the Landfill in a safe manner, and to track waste through the Waste Tracking System, discussed at Permit Attachment F1, Section 4.8, *Waste Tracking*. Waste placement shall take place in 5 to 10 ft thick horizontal lifts, as specified at Permit Attachment L, Section 3.1.4.

6.3.3 Daily Cover

The Permittee shall ensure that a daily soil cover with a minimum thickness of 0.5 ft is placed on the active waste placement area of the Landfill to control wind dispersal of particulate matter, as specified at Permit Attachment A, Section 2.5.1.7, *Wind Dispersal Control Procedures*; and Permit Attachment N, Section

3.4.3, *Waste Placement;* and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.301(j).

6.3.4 Management of Run-On/Run-Off

6.3.4.a Collection Basins

The Permittee shall ensure that run-on and run-off is pumped out of the stormwater collection basin and the contaminated water collection basin within 24 hours after a storm event, or otherwise manage these basins to maintain the design capacity of the systems, as specified at Permit Attachment A, Section 2.5.1.6, and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.301(i).

6.3.4.b Standing Water

The Permittee shall ensure that standing water which collects on the Landfill floor is pumped out within 24 hours after a storm event, as specified at Permit Attachment A, Section 2.5.1.6, and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.301(g).

6.3.5 Leachate

If leachate collected from the Landfill leak detection systems meets LDR treatment standards, the Permittee may treat the leachate in the Surface Impoundment and/or Stabilization Unit, as appropriate, and dispose of the treated leachate in the Landfill. If the leachate does not meet LDR treatment standards after treatment, the Permittee shall ship the leachate off-site to a permitted hazardous waste management facility, in compliance with all applicable regulations for generation and transport of hazardous waste.

6.4 WASTE ANALYSIS

6.4.1 Waste Characterization

The Permittee shall ensure that all waste placed in the Landfill meets the waste analysis requirements specified at Permit Attachment F1, *Waste Analysis Plan*, Section 4.5.5.5, *Waste analysis requirements specific to the landfill*, and Permit Conditions 6.8 through 6.10.

6.4.2 Annual Analysis

On an annual basis, the Permittee shall randomly sample and analyze a minimum of 10 percent of incoming waste streams that are to be directly landfilled to verify compliance with the LDR treatment standards, as specified at Permit Attachment F1, Section 4.5.5.5.

6.4.3 Leachate - Leak Detection Systems

The Permittee shall sample leachate collected from the LDRS, LCRS, and VZMS for all the multi-source leachate constituents listed in the Table contained at 20.4.1.8~~5~~00 NMAC, incorporating 40 CFR 268.40, for F039 waste, as specified at Permit Attachment F2, Section 4.5.1.2, *Additional analysis to ensure compliance with the LDR treatment standards*, and Permit Attachment F1, Section 4.5.6, *Waste Analysis Requirements for Waste Generated On-Site*.

6.4.4 Leachate - Vadose Zone Monitoring Wells

The Permittee shall sample and analyze the leachate (if any) collected from the VZMS monitoring wells in accordance with Permit Condition 7.~~1.~~4.

6.5 LEAKS, SPILLS, AND LEACHATE MANAGEMENT

6.5.1 Spills and Releases

The Permittee shall ensure that spills and releases to the surface environment are contained and remediated in a timely manner.

6.5.2 Leachate Removal

6.5.2.a Removal of Leachate from the LCRS and LDRS

The Permittee shall remove pumpable liquids from the LCRS and LDRS sumps whenever monitoring indicates the presence of liquid, to prevent the head on the bottom liner from exceeding 12 inches, as specified at Permit Attachment N, Section 3.4.4, *Operation of Leachate Collection and Detection Systems* ~~Permit Attachment J, Response Action Plan (RAP), Section 2.5.3.9, RAP; and~~ in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.301(c)(4).

6.5.2.b Removal of Leachate from the VZMS

The Permittee shall remove pumpable quantities of leachate (if any) from the VZMS as specified at Permit Attachment I, Section 4.0, *Monitoring Procedures*.

6.5.2.c Leachate Storage

Leachate removed from the LCRS, LDRS, and VZMS shall be stored in the Leachate Storage Tank, as specified at Permit Attachment A, Section 2.5.1.3; and Permit Attachment L, Section 3.1.3, and as shown on Drawing No. 19.

6.5.2.d Leachate Sampling

The Permittee shall ensure that sampling of leachates removed from the LCRS, LDRS, and VZMS sumps occurs before this leachate is commingled with the leachate from any other unit. The Landfill LDRS, LCRS, and VZMS leachate may be commingled before sampling.

6.5.3 Action Leakage Rate

The Action Leakage Rate (ALR) for the Landfill, as approved by the Secretary in accordance with 20.4.1.500 NMAC, incorporating 40 CFR 264.302(a), is 900 gallons per acre per day (gpad) as measured in the LDRS sump, as specified at Permit Attachment A, Section 2.5.3.8, *Action Leakage Rate*. ~~Permit Attachment J, *Response Action Plan (RAP)*, Section 2.5.3.8, *ALR*, and Permit Attachment L, Section 2.5.4.8, *ALR*.~~

To determine if the ALR has been exceeded, the Permittee shall determine the average daily flow rate on a weekly basis during the active life and closure period of the Landfill, and monthly during the post-closure period (when monthly monitoring is required), as specified at Permit Attachment J, Section 5.4, *Determination if the Action Leakage Rate is Exceeded*~~-~~ in~~in~~ compliance ~~compliance with~~ with 20.4.1.500 NMAC, incorporating 40 CFR 264.302(b).

6.5.4 Flow Rates Less than or Equal to the ALR

The Permittee shall respond to leakage less than or equal to the ALR, as specified at Permit Attachment A~~J~~, Section 2.5.3.9, *RAP*.

6.5.5 Flow Rates Greater than the ALR

The Permittee shall respond to leakage greater than the ALR as specified at Permit Attachment A~~J~~, Section 2.5.3.9; and in compliance with all requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264.304(b)(3) through 264.304(b)(5) and 264.304(c). The Permittee shall also immediately inspect each monitoring point in the VZMS for fluids in accordance with Permit Condition 7.4~~5~~.1.a, as specified at Permit Attachment I, Section 4.2, *Response Actions*, and shall increase the frequency of inspection of the VZMS wells from monthly to weekly in accordance with Permit Condition 7.4~~5~~.1.b.

6.6 INSPECTION AND MONITORING PROCEDURES

6.6.1 Inspection Requirements

6.6.1.a General Inspection Requirements

The Permittee shall inspect the Landfill, including the liner and leachate collection systems, and ancillary equipment, as specified at Permit Attachment D, *Inspection Procedures*, Section 5.2.2, *Landfill Inspection Procedures*, and Attachment ~~Appendix~~ D1, *Inspection Schedules and Checklists*; and in compliance with all requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264.303; and shall maintain inspection logs and checklists in accordance with Permit Conditions 2.7 and 6.7.1.b.

6.6.1.b Inspections During Construction

The Permittee shall inspect the liners and cover systems of the Landfill during construction and installation for uniformity, damage, and imperfections (e.g., holes, cracks, thin spots, or foreign materials), in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.303(a).

6.6.1.c~~b~~ Inspections After Construction

The Permittee shall inspect the liners and cover systems of the Landfill immediately after installation or construction in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.303(a)(1) and (2), as follows:

- The Permittee shall inspect all synthetic liners and covers to ensure tight seams and joints and the absence of tears, punctures, or blisters; and

- The Permittee shall inspect soil-based and admixed liners and covers for imperfections including lenses, cracks, channels, root holes, or other structural nonuniformities that may cause an increase in the permeability of the liner or cover.

6.6.1.de Inspections During Operation

The Permittee shall inspect the Landfill weekly and after storms, as specified at Permit Attachment D, Appendix D1, and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.303(be), to detect evidence of any of the following:

- Deterioration, malfunctions, or improper operation of run-on and run-off systems;
- Proper functioning of wind dispersal control systems; and
- The proper functioning of, the LDRS, LCRS, and VZMS.

6.6.2 Monitoring Requirements

The Permittee shall monitor the LCRS, LDRS, and VZMS daily and the vadose zones monthly for the presence of liquids, and to ensure that the systems are functioning properly,, weekly during the active life, including the closure period, of the Facility, and monthly during the post-closure care period, as specified at Permit Attachment A, Sections 2.5.1.2, *Liner Systems*, 2.5.1.3, *LCRS* 2.5.1.4, *LDRS*, and 3.7.2, *Vadose Zone Monitoring Requirements;* Permit Attachment D, Section 5.2.2, *Landfill Inspection Procedures*, and Appendix D1,; Permit Attachment I, Sections 4.1, *Monitoring Frequency*, and Table 2, and 4.3, *Monitoring Method;* and Permit Attachment N, Section 3.45.4, *Operation of Leachate Collection and Detection Systems;and Vadose Zone;* and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.303(c).

If liquids are present, the Permittee shall sample and analyze the liquids as specified at Permit Attachment F1, Section 4.5.6. The Permittee shall remove and properly dispose of all liquids collected, as specified at Permit Attachment I, Section 4.2.

6.7 RECORDKEEPING AND REPORTING

~~6.7.1~~ Recordkeeping Requirements

The Permittee shall follow the recordkeeping requirements for the Landfill specified at Permit Attachment N, Section 3.5.1, *Records*. Records kept shall include, but are not limited to:

6.7.1.a Grid Location

The Permittee shall maintain the following items in the Operating Record, in accordance with Permit Condition 2.12.1.h, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.73(b)(2) and 40 CFR 264.309:

- A map with the exact location and dimensions including depth, of each grid "cell" in the three-dimensional grid system required under Permit Condition 6.3.2, with respect to permanently surveyed benchmarks; and
- The contents in each grid "cell" and the approximate location of each hazardous waste type within each grid "cell~~;~~."

6.7.1.b Inspection Logs

The Permittee shall keep in the Operating Record for a minimum of three years the inspection logs and other records for the inspections conducted in accordance with Permit Condition 6.6.1.c, in accordance with Permit Condition 2.7.2~~1~~, and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.15(d) and 264.73(b)(5~~);~~).

6.7.1.c LDRS, LCRS, and VZMS Monitoring Data

The Permittee shall keep records for the LDRS, LCRS, and VZMS monitoring conducted in accordance with Permit Condition 6.6.2, including a record of the amount of liquids removed during the active life, closure, and post-closure care periods of the Landfill, in accordance with Permit Condition 2.12.1.j.i, and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.303(c)(1)

6.7.2 Reporting and Notification Requirements

6.7.2.a Landfill CQA Certification

Prior to the initiation of operations at the Facility, the Permittee shall submit a certification to the Secretary signed by the CQA officer that the approved CQA Plan has been successfully carried out and the Landfill meets all regulatory requirements, in accordance with Permit Conditions 1.5.8~~9~~.c.i and 1.10, and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.19(d). The certification shall also attest that the Secretary's inspection, provided for at Permit Condition 1.5.8~~0~~.c.ii, has been either completed or waived. The Permittee shall furnish documentation supporting this certification to the Secretary upon request.

6.7.2.b Waste Identification and Location within the Landfill

The Permittee shall submit current information on the map required under Permit Condition 6.7.1.a to the Secretary as the information is developed. The Permittee shall also submit the location of waste placed in the Landfill, accurate to within one meter, in terms of the grid coordinates, to the Secretary. This information shall be included in the Quarterly Report required under Permit Condition 2.12.2.b.

6.7.2.c Response Actions

If the flow rate into any leak detection system exceeds the ALR, the Permittee shall, as specified at Permit Attachment J, Section 2.5.3.9, and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.304(b)(1), 264.304(b)(2), and 264.304(b)(6):

- Notify the Secretary in writing of the exceedance within seven calendar days of the determination;
- Submit a preliminary written assessment to the Secretary within 14 calendar days of the determination, as to the amount of liquids, likely source of liquids, possible location, size, and cause of any leaks, and short-term actions taken and planned; and
- Within 30 calendar days after the notification that the action leakage rate has been exceeded, submit to the Secretary the results of the analyses required under Permit Condition 6.5.5, the results of actions

taken, and actions planned. Monthly thereafter, the Permittee shall, as long as the flow rate in the LDRS or LCRS exceeds the ALR, submit to the Secretary a report summarizing the results of any remedial actions taken and actions planned.

6.8 SPECIAL LANDFILL PROVISIONS FOR IGNITABLE OR REACTIVE WASTES

The Permittee shall not place ignitable or reactive waste in the Landfill, unless the waste meets all applicable LDR requirements contained at 20.4.1.500 NMAC, incorporating 40 CFR 264.17(b) and 20.4.1.800 NMAC, incorporating 40 CFR Part 268, and the ignitable or reactive waste has been treated so that it no longer meets the definition of ignitable or reactive waste contained at 20.4.1.2~~5~~00 NMAC, incorporating 40 CFR 261~~4~~.21 or 261~~4~~.23, as specified at ~~at~~ Permit Attachment A, Section 2.5.3.6, *Special Requirements for Ignitable/Reactive Wastes*, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.312. The Permittee shall also comply with the procedures for managing ignitable or reactive waste contained at Permit Attachment A, Section 2.5.3.6.

6.9 SPECIAL LANDFILL PROVISIONS FOR INCOMPATIBLE WASTES

The Permittee shall not place incompatible wastes, or incompatible wastes and materials, in the same Landfill grid "cell", except in compliance with the procedures specified at Permit Attachment A, Section 2.5.3.7, and at 20.4.1.500 NMAC, incorporating 40 CFR 264.17(b), in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.313. Incompatible waste shall be placed with a minimum of one grid distance (horizontally and vertically) between the wastes, as specified at Permit Attachment A, Section 2.5.3.7.

6.10 DISPOSAL REQUIREMENTS FOR SPECIFIC WASTE TYPES

6.10.1 Free Liquids

6.10.1.a Bulk or Non-Containerized Free Liquids

The Permittee shall not place bulk or non-containerized free liquids or waste containing free liquids in the Landfill, as specified at Permit Attachment F1, Section 4.5.5.5, *Waste*

analysis requirements specific to the Landfill, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.314(b). ~~**COMMENT: CK 3004(c)(1) and RCRA-108**~~.

6.10.1.b Containers Holding Free Liquids

The Permittee is prohibited from placing containers holding free liquid in the Landfill unless the following conditions are met, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.314(d):

- All free-standing liquid: (i) has been removed by decanting or other methods; (ii) has been mixed with absorbent or solidified so that free-standing liquid is no longer observed; or (iii) has been otherwise eliminated; or
- The container is no larger than an ampule; or
- **The container is designed to hold free liquids for use other than storage (e.g., a battery or capacitor); or**
- **The container is a lab pack as defined at 20.4.1.500 NMAC, incorporating 40 CFR 264.316, and is disposed of in accordance with Permit Condition 6.10.2.**

6.10.2 Lab Packs

The Permittee shall ensure that small containers of hazardous waste in overpacked drums (lab packs) are disposed of in the Landfill as specified at Permit Attachment A, Section 2.5.3.7, and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.316.

6.10.3 Hazardous Debris

The Permittee shall not place hazardous debris in the Landfill unless it has been treated by the generator and the generator has and certified that the debris meets the LDR treatment standards specified at 20.4.1.800 NMAC, incorporating 40 CFR 268.45, as specified at Permit Attachment F1, Section 4.5.5.5.

6.10.4 Contaminated Soil

The Permittee shall not place contaminated soil in the Landfill except in compliance with all the requirements of 20.4.1.800 NMAC, incorporating 40 CFR 268.49.

6.11 SPECIFIC PROVISIONS FOR EMPTY CONTAINERS

The Permittee shall not dispose of any containers that are larger than ampules in the Landfill unless they are at least 90 percent full when placed in the Landfill or they are crushed, shredded, or similarly reduced in volume to the maximum practical extent before placement in the Landfill, in compliance with 20.4.1.500, incorporating 40 CFR 264.315.

6.12 LANDFILL CLOSURE

The Permittee shall conduct closure activities as specified at Permit Attachment O, *Closure Plan*, Section 8.1.6, *Landfill*, and other applicable sections; and in accordance with Permit Part 8; and in compliance with all requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264.310. The Permittee shall follow the time frame for closure specified at Permit Attachment O1, *Schedule for Closure*.

6.12.1 Performance Standard

The Permittee shall close the Landfill so as to minimize the need for further maintenance and control, minimize, or eliminate the need for post-closure care to the extent necessary to protect human health and the environment, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.111.

6.13 POST-CLOSURE PLAN

The Permittee shall conduct post-closure care as specified at Permit Attachment P, *Post-Closure Care Plan*, Section 8.2, *Post-Closure Activities*, and other applicable sections; and in accordance with Permit Part 8; and in compliance with all requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264, Subpart G and 40 CFR 264.310.

TABLE 6-1

PERMITTED LANDFILL UNIT

Unit	Dimensions (feet)	Capacity (Cubic Yards)	Surface Area (Acres)
Landfill Phase IA	1,050 long x 1,050 wide x 100 deep	553,200	35~~15.6~~

PERMIT ATTACHMENTS REFERENCED IN PERMIT PART 6

Permit Attachment	Plan or Document
A	General Facility Description and Information
D	Inspection Procedures
—D1	Inspection Schedules and Checklists
F	Waste Analysis Plan
I	Vadose Zone Monitoring System Work Plan
J	Response Action Plan
L	Engineering Report and Drawings
M	Construction Quality Assurance Plan
N	Operations and Maintenance Plan
O	Closure Plan
—O1	Schedule for Closure
P	Post-Closure Care Plan

PART 7

VADOSE ZONE MONITORING

HIGHLIGHTS

Introduction

The goal of this Permit Part and Permit Attachment K, *Vadose Zone Monitoring System Work Plan* (**VZMSWP**) is to ensure the earliest possible detection of contaminant leakage from the Landfill and the Surface Impoundment units. The Landfill and Surface Impoundment are the ~~referred to as~~ Aregulated units@ referred to in this Part. The Vadose Zone Monitoring System (**VZMS**) consists of ~~a primary system of~~ sumps located directly below both regulated units, and ~~a secondary system of~~ nine monitoring wells located immediately adjacent to, and down gradient of the regulated units. The VZMS monitors the accumulation and migration of fluids ~~that appear~~ below the ground surface and above the basal unit of the Uppermost Dockum which is considered the uppermost aquifer, and specifically ~~particularly~~ fluids accumulating at the stratigraphic boundaries that form hydrologic barriers to vertical fluid migration both below and down gradient of the regulated units. Together with the Leachate Collection and Removal System **(LCRS)** and Leak Detection and Removal System **(LDRS)** ~~T~~the VZMS shall ~~be monitored to~~ distinguish between leachates originating within the regulated units and non-leachate fluids that may originate outside the units. This Permit Part specifies the methods for establishing the chemical characteristics of leachates and non-leachates, collection and analysis of fluids that may appear in the VZMS, and source determination.

Permit Conditions ~~included~~ presented in this Permit Part include: the location, design, construction, operation, and maintenance of the VZMS; the methodology for sampling and characterizing the fluids that may accumulate in the system; a methodology for distinguishing between leachates and non-leachates; monitoring frequency; laboratory analysis; and data reporting and recording requirements.

Regulatory Background

Vadose zone monitoring is not specifically required in the New Mexico Hazardous Waste Management Regulations. These regulations do, however, require that hazardous waste disposal and treatment facilities monitor the groundwater of the uppermost aquifer for

possible contaminant releases and that~~have~~ the necessary permit conditions be implemented to be protective of human health and the environment. ~~-~~It is these requirements that provide the regulatory basis for vadose zone monitoring and the conditions of this Permit Part.

The requirement for ground water monitoring of the uppermost aquifer has been waived at the Facility for reasons specified at Permit Attachment H, *Ground water Monitoring Waiver Request and Approval*. A condition of the waiver is the establishment of an effective VZMS. Furthermore, the vadose zone monitoring conditions of this Permit are required by the Secretary through the Secretary=s Aomnibus authority@ stipulated at 20.4.1.900 NMAC, incorporating 40 CFR 270.32(b)(2), requiring permit terms and conditions necessary to protect human health and the environment.

~~**Other Monitoring Requirements**~~

~~Monitoring requirements for regulated units contained in this Part are in addition to the monitoring requirements specified at Permit Conditions 5.4.1 and 6.4.1.~~

Regulated Units

Regulated units are defined at 20.4.1.500 NMAC, incorporating 40 CFR 264.90(a)(2) as those land based units that received hazardous wastes after July 26, 1982. ~~At t~~The Facility has~~there are~~ two regulated units, the Landfill and the Surface Impoundment. The landfill is described at Permit Part 6, *Highlights*. The Landfill is a disposal unit where wastes will remain indefinitely and will therefore be subject to vadose zone monitoring Permit conditions established in this Part that are extended through the Post-Closure Care Period (see Permit Part 9).

Potential releases from the Landfill are anticipated to be in the form of liquids escaping through a breach in the liner system. Though no free liquids will be placed in the Landfill, fluids will enter the Landfill in the form of ~~precipitation which~~precipitation, which will invariably leach hazardous constituents and accumulate in the Landfill sump. Engineered controls to address the accumulated fluids and to preclude a release outside the Landfill liner system include a Leachate Collection and Removal System (**LCRS**) and a Leak Detection and Removal System (**LDRS**). The LCRS and LDRS are not considered part of the VZMS, but LCRS and LDRS fluid samples are used to establish indicator parameters indicative of landfill leachate

against which VZMS sample analyses are compared to determine whether a release to the vadose zone has occurred.

The Surface Impoundment is described at Permit Part 5, *Highlights*. Although the Surface Impoundment is a treatment unit that will undergo closure, its associated vadose zone monitoring wells will continue to be monitored through the post-closure care period due to their proximity to the Landfill. Potential releases from the Surface Impoundment are anticipated to be in the form of liquids escaping through a breach in the liner system. Fluids that escape through the primary liner will be ~~addressed~~ detected by the Surface Impoundment LDRS.

7.1 GENERAL REQUIREMENTS

7.1.1 Duty to Monitor

The Permittee shall conduct vadose zone monitoring in accordance with the requirements of this Permit Part and as specified at Permit Attachment K, *Vadose Zone Monitoring System Work Plan*.

7.1.2 Duty to Initiate Corrective Action

If at any time a release, generally in the form of a leachate escaping through a liner system, is detected from an regulated unit through the release assessment required at Permit Condition 7.5, the Permittee shall immediately notify the Secretary and initiate corrective action in accordance with Permit Part 10.

7.1.3 Duty to Remove Non-Leachates

If the VZMS contains non-leachates as defined at Permit Condition 7.3.1, the Permittee shall identify and/or remove, where possible, the source of the non-leachate as well as all resultant fluids. If removal is implemented, the Permittee shall report the progress of that removal to the Secretary monthly. If at any time the Secretary determines that the presence of any fluids, particularly non-leachate, inhibits the Permittee=s ability to detect a release from a regulated unit, the Secretary may order that the Permittee cease hazardous waste disposal and/or treatment operations at that regulated unit.

7.1.4 Duration of Monitoring

The Permittee shall conduct vadose zone monitoring through the operating and closure periods of both the Landfill and the

Surface Impoundment, and through the post-closure care period of the Landfill, in accordance with this Permit.

7.2 VZMS LOCATION AND CONSTRUCTION

The Permittee shall locate, construct, and maintain a VZMS as specified below. The Permittee shall use the document, US Environmental Protection Agency (**EPA**) Office of Solid Waste and Emergency Response (**OSWER**) Directive 9950.1, *RCRA Ground-Water Monitoring Technical Enforcement Guidance Document*, as guidance for construction and maintenance of the VZMS.

7.2.1 Monitoring Locations

The VZMS shall consist of ~~a sufficient number of monitoring points,~~ three Vadose Zone Sumps and nine vadose zone monitoring wells installed at ~~appropriate~~ locations and depths specified in Permit Conditions 7.2.1.a, 7.2.1.b 7.2.1.c, and Permit Attachment K, Section 2.0 *Vadose Zone Monitoring system Installation* that shall~~, to~~ yield fluid samples from the vadose zone below the facility where fluids are likely to accumulate in the future. Deep vadose zone monitoring wells, shallow vadose zone monitoring wells, and the vadose zone monitoring sumps shall be installed prior to acceptance of first waste in accordance with the schedule presented in Permit Condition ~~XXX~~ 1.10 and Table 1-1 of this permit. ~~The VZMS shall also conform to the following requirements:~~

7.2.1.a Deep Vadose Zone Monitoring Wells

The Permittee shall install six deep vadose zone monitoring wells that intersect the stratigraphic boundary between the Upper and Lower Dockum stratigraphic units at the locations specified as Nos. VZMW-1, 2, 3, 4, 5 and 6 in Permit Attachment K, Figure 2, *Location of Sumps and Monitoring Wells*.

7.2.1.b Shallow Vadose Zone Monitoring Wells

The Permittee shall install three shallow vadose zone monitoring wells that intersect the stratigraphic boundary between the alluvial material and Upper Dockum stratigraphic units at the locations specified as Nos. VZMW-7, 8, and 9 in Permit Attachment K, Figure 2, *Location of Sumps and Monitoring Wells*. If less than four feet of alluvium exists at any of the above referenced locations, no monitoring wells shall be constructed at ~~the applicable~~ these location(s) and the Permittee shall specify alternative shallow well installation locations for NMED approval

in accordance with Permit Condition 7.2.1.e. Following NMED approval of the alternative well locations, the shallow vadose zone monitoring wells shall be installed.

7.2.1.c Vadose Zone Monitoring Sumps

The Permittee shall install three vadose zone monitoring sumps, two below the Surface Impoundment and one below the Landfill at the locations specified at Permit Attachment K, Figure 2, *Locations of Sumps and Monitoring Wells*.

7.2.1.d Additional Vadose Zone Monitoring Points

If subsurface conditions change, or the Secretary=s or the Permittee=s knowledge of subsurface conditions significantly changes after Permit issuance, additional vadose zone monitoring points shall be installed by the Permittee in accordance with Permit Condition 7.2.2. Such changes may include, but are not limited to, water level elevation or apparent flow direction changes, detection of fluid in previously dry locations, or the discovery of previously unknown permeable strata during facility construction or operation. The Permittee shall a initiate a Class 3 permit modification to incorporate the monitoring point in accordance with Permit Condition 1.2.4.

7.2.1.e Location of ~~new or~~ Replacement Wells

Should existing monitoring wells fail or otherwise cease to perform their intended function, or if shallow monitoring wells cannot be installed in the location specified in Permit Condition 7.2.1.b, replacement wells may be required. Replacement vadose zone monitoring wells shall be located within 15 feet of an original well.

7.2.1.f Well Surveys

All wells shall be surveyed for both vertical and horizontal coordinates by a New Mexico registered, professional land surveyor. Horizontal coordinates shall be to plus or minus 0.1 foot with respect to the State Plane Coordinate System [NMSA 47-1-49 to 56 (NMSA 1978,' 47-1-49 (Repl. Pamp. 1993))] and a facility benchmark. Vertical coordinates shall be to the top of the well casing (marked), the top of the concrete apron (marked), and the ground surface to plus or minus 0.01 foot with respect to mean sea level and a benchmark. This survey information shall be entered into and maintained in the Operating Record in accordance with Permit Condition 7.7.1.

7.2.2 VZMS Construction

The Permittee shall construct and maintain the vadose zone monitoring points identified in Permit Condition 7.2.1 to yield sufficient fluid samples from the vadose zone below the facility that are representative of the various fluid sources. The VZMS shall also conform to the following construction requirements:

7.2.2.a Deep Vadose Zone Monitoring Wells~~s~~ Construction

The Permittee shall install and maintain six deep vadose zone monitoring wells that are capable of collecting a representative sample of all fluids that may accumulate at or above the stratigraphic boundary between the Upper and Lower Dockum stratigraphic units, and below the stratigraphic boundary between the alluvium and the Upper Dockum, as specified at Permit Attachment K, Section 2.2.2, ~~*Vadose Zone*~~ *Vadose Zone Monitoring Well~~s~~Construction*.

7.2.2.b Shallow Vadose Zone Monitoring Wells~~s~~ Construction

The Permittee shall install and maintain three shallow vadose zone monitoring wells that are capable of collecting a representative sample of all fluids that may accumulate at or above the stratigraphic boundary between the alluvial material and the Upper Dockum stratigraphic units, and below the ground surface, as specified at Permit Attachment K, Section 2.2.2., *Vadose Zone Monitoring Well~~s~~ Construction*. If less than four feet of alluvium exists at one of the above referenced locations, a shallow monitoring well shall not be constructed at that location and an alternative location shall be selected in accordance with Permit Conditions 7.2.1.b and 7.2.1.e.

7.2.2.c Vadose Zone Monitoring Sumps Construction

The Permittee shall install and maintain three vadose zone monitoring sumps that are capable of collecting a representative sample of any fluids that may accumulate at the lowermost construction depth below both the Landfill and the Surface Impoundment as specified at Permit Attachment K, Section 2.1, *Vadose Zone Sumps*. Vadose Zone Sumps shall be designed and constructed in accordance with the following engineering design drawings contained in this Permit:

Drawing 15: Sump Plan View - Phase 1a
Drawing 16: Sump Cross-Sections - Phase 1a
Drawing 17: Typical Sump Detail Cross-Section
Drawing 18: Vadose, LDRS, LCRS Cross-Sections and Details

Drawing 28: Evaporation Pond Subgrade Contours - Phase 1
Drawing 29: Evaporation Pond Clay Liner Contours - Phase 1
Drawing 30: Evaporation Pond Cross-Sections
Drawing 32: Evaporation Pond LDRS and Vadose Plan & Details
Drawing 39: Drum Handling Unit (sh 1 and sh 2)
Drawing 41: Truck Roll Off Area (plan)
Drawing 43: Truck Roll Off Area (section and details)
Drawing 44: Truck Wash (sh 1 and sh 2)

7.2.2.d Supervision of Construction

An experienced professional geologist or engineer shall supervise and document all VZMS construction.

7.2.2.e Continuous Core

Well bores VZMW-1, VZMS-5 and VZMS-6, as identified in Permit Attachment K, Table 2, *Location of Sumps and Monitoring Wells*, shall be drilled so as to provide continuous core. All geologic core shall be sealed, boxed, stored, and made available for inspection for the operating life of the facility. These samples shall be considered part of the Operating Record and maintained in accordance with Permit Condition 7.7.1.

7.2.2.f Compatibility of Well Construction Materials

The Permittee shall ensure that vadose zone fluids are not adversely affected by well construction materials. The compatibility demonstration shall be provided within six months of well construction, provided that sufficient vadose zone fluids are available to perform said assessment.

7.2.2.g Drilling Equipment Air~~r~~ Supply

~~For b~~Borings shall be drilled using air rotary drilling methods as specified in Permit Attachment K, Section 2.2.2, Vadose Zone Monitoring Well Construction, and the air supply shall be filtered or provided with an efficient separator to minimize water or compressor oil introduced into the well bore.

7.2.2.h Well Completion Logs

Well ~~C~~Completion Logs for each VZMS well shall include, in addition to those items listed at Permit Attachment K, Section 2.2.2.3, *Well Construction Information*, the following information:

- date(s) of drilling, completion, and any well development that may be necessary;
- explanation for any introduced water and a reference to its source and its chemical analysis;
- well location horizontal and vertical coordinates;
- total boring depth to within 0.1 foot with respect to ground surface, and well depth to within 0.01 foot with respect to top of casing (marked);
- boring and well casing(s) diameters;
- drilling and lithologic logs;
- well casing material specifications and size, and reference material certifications;
- well screen slot size and depth to both top and bottom of screen interval;
- casing and screen joint type;
- filter pack material source and grain size analysis;
- filter pack placement methodology;
- sealant material sources, types and mix design;
- surface seal design;
- reference to any non-anthropogenic fluids encountered during construction;
- well development procedures should they be required including equipment and methods used, total daily amounts of fluids removed, recovery rates, turbidity and static fluid surface elevation measurements, if applicable;
- description of protective cap; and,
- detailed well construction drawing presenting depth of well construction material emplacement and ~~drawing of~~ well with dimensions.

Well Completion Logs shall be entered into and maintained in the Operating Record in accordance with Permit Condition 7.7.1. The Well Completion Logs shall be submitted to the Secretary in the first Quarterly Report after completion of well construction in accordance with Permit Condition 7.7.2.

7.2.2.i Decontamination of Material Introduced into the Well Bore

All materials (except filter pack and sealants) introduced into the well bore shall be steam cleaned or washed with hot water and

anionic detergent (e.g., Alconox or equivalent) and thoroughly rinsed with distilled water prior to introduction, unless the material is supplied from the manufacturer certified clean and has remained sealed in a protective wrapping. ~~W~~Wash/decontamination water shall be collected in 55-gallon drums, labeled and stored on site for later disposal in accordance with applicable regulations.

7.2.2.j Decontamination of Drilling Equipment

Drilling equipment shall be decontaminated as specified at Permit Attachment K, Section 2.2.3, *Decontamination*.

7.3 ~~MONITORING CONSTITUENTS~~ INDICATOR PARAMETERS

The Permittee shall create and maintain a list of chemical constituents and other parameters for use in monitoring the VZMS as specified below. Monitored constituents are hereafter referred to as indicator parameters. A List of indicator parameters shall be developed against which VZMS sample analysis shall be compared to assess potential releases to the vadose zone in accordance with Permit Condition 7.5

Potential sources of vadose zone fluids include two major categories: leachates originating from within the regulated units and containing the contaminants of concern; and non-leachates that originate outside the regulated units which are generally considered to not be contaminated. ~~Non-leachate chemical constituent concentrations will be referred to as Abaseline@ concentrations.~~ These ~~baseline~~ non-leachate values will be combined with the chemicals measured in leachates to establish the complete list of indicator parameters.

7.3.1 Non-Leachates

The Permittee shall establish an indicator parameter ~~baseline~~ list for the following non-leachates according to the procedures specified at Permit Attachment K, Section 3, *Baseline Liquid Characterization*:

- precipitation;
- consolidation water from prepared regulated unit subgrade or geosynthetic clay liner;
- Facility water supply; and
- storm water detention pond fluids.

Non-leachates are anticipated to contain only major ions and metals, but shall also be analyzed for those parameters identified at Permit Attachment K, Table 1, *Baseline Chemical Analysis*, including sulfides and sulfates, radionuclides, volatile organic compounds (**VOCS**), semi-volatile organic compounds (**SVOCs**), pesticides, polychlorinated biphenyls (**PCBs**), perchlorate, and total petroleum hydrocarbons (**TPH**). Non-leachate water samples and drill cuttings from three representative Dockum lithologies (i.e. mudstone, siltstone, and sandy siltstone) will be used in the Meteoric Water Mobility Procedure to determine non-leachate water quality as described in Attachment A of Attachment K, *Meteoric Water Mobility Procedure.* As a result of this procedure and depending upon non-leachate water quality analysis as described in Attachment K, Section 3.0 *Baseline Liquid Characterization*, between three and twelve water quality samples shall be used to determine the non-leachate indicator parameter list.

7.3.1.a Time Frame for Establishing ~~baseline~~Non-leachate Indicator Parameter List

The ~~chemical constituent baseline~~ indicator parameter list for non-leachates, excluding data acquired from~~other than~~ storm water detention pond fluids, shall be established within three months of activating the water supply and before acceptance of first waste according to the procedures specified in Permit Attachment K, Section 3.0, *Baseline Liquid Characterization*.

The chemical constituents ~~baseline for~~ in storm water detention pond fluids shall initially be assumed to be identical to precipitation and shall be re-evaluated and reported to the Secretary annually due to the expected change in that fluids chemical characteristics.

7.3.1.b Reporting - ~~baseline values for~~ Non-leachates~~s~~

The established ~~baseline~~ non-leachate indicator parameter list ~~values~~ and the computations necessary to determine the non-leachate~~baseline~~ indicator parameter list ~~values~~ shall be submitted in a separate report to the Secretary for approval in accordance with Permit Condition 7.7.2.

7.3.2 Additional Non-leachates

The Permittee may in the future provide the Secretary evidence of additional non-leachates from sources other than those identified in Permit Condition 7.3.1. If the Secretary agrees that a new source of non-leachate fluid has been identified, the Permittee

shall establish a chemical constituent baseline for the additional fluid in a manner consistent with the procedure identified in Permit Condition 7.3.1.

7.3.~~2~~3 Leachates

The Permittee shall establish indicator parameters for leachates generated at both the Landfill and the Surface Impoundment as specified below. These lists shall be maintained in the Operating Record. The leachate indicator parameters determined through Monthly and Biennial shall be combined into a single leachate indicator parameter list which presents those parameters detected and which shall be revised as new indicator parameters are detected in subsequent sampling rounds. Parameters shall not be removed from the listing if subsequent sampling events do not detect a parameter present in previous sampling events.

7.3.~~2~~3.a Monthly sampling

The Permittee shall analyze both the Landfill and Surface Impoundment leachate (i.e. samples from the LCRS and LDRS) monthly as specified at Permit Attachment F *Waste Analysis Plan*, Section 4.5.6, *Waste Analysis Requirements for Waste Generated On-Site,* for the underlying hazardous constituents listed at 20.4.1.800 NMAC, incorporating 40 CFR 268.40, for EPA Hazardous Waste No. F039 listed wastes. The results of these analyses shall be reported to the Secretary in the Quarterly Report in accordance with Permit Condition 7.7.2.

7.3.~~2~~3.b Biennial sampling

The Permittee shall analyze both the Landfill and Surface Impoundment leachate biennially for the hazardous constituents listed at 20.4.1.500 NMAC, incorporating 40 CFR 264, Appendix IX as specified at Permit Attachment F, Section 4.5.6, *Waste Analysis Requirements for Waste Generated On-site.* The results of the test shall be reported to the Secretary in the Biennial Report and the samples shall be collected no sooner than 45 days prior to the Biennial Report due date. Constituents previously undetected in the Appendix IX analysis shall be identified. Constituents detected but not previously reported in accordance with Permit Conditions 7.3.~~2~~3.a and 7.3.~~2~~3.b shall also be highlighted.

~~**7.3.3 Additional Non-leachates**~~

~~The Permittee may in the future provide the Secretary evidence of additional non-leachates from sources other than those identified~~

~~in Permit Condition 7.3.1. If the Secretary agrees that a new source of non-leachate fluid has been identified, the Permittee shall establish a chemical constituent baseline for the additional fluid in a manner consistent with the procedure identified in Permit Condition 7.3.1.~~

7.4 MONITORING PROGRAM

The Permittee shall inspect and sample the VZMS at each monitoring point during the operating, closure and post-closure periods as specified at Permit Condition 7.1.4. The Permittee shall use the following techniques and procedures when inspecting and sampling the vadose zone monitoring points identified in Permit Condition 7.2.1. This information shall be recorded and reported in accordance with Permit Condition 7.7. Investigation derived waste (**IDW**) generated during monitoring shall be managed as specified at Permit Attachment F, Section 4.5.6.1, *Overview of wastes generated on-site*.

7.4.1 Requirement to Inspect

7.4.1.a Inspection schedule for vadose zone fluids

The Permittee shall inspect each VZMS sump daily and each VZWS well monthly for vadose zone fluids. Inspection of VZMS sumps and wells shall occur semi-annually during the post-closure period.

7.4.1.b Inspection due to exceedance of the ALR

Should the Action Leakage Rate(**ALR**)be exceeded as specified in Section 5.~~4~~5.~~2~~5 and 6.~~3~~5.~~2~~5, the Permittee shall inspect each VZMS monitoring point associated with the particular regulated unit immediately. The Permittee shall increase the frequency of inspection of the monitoring wells from monthly to weekly at a specific regulated unit if the ALR is exceeded. The inspection frequency shall remain weekly as long as the ALR continues to be exceeded. Inspection shall include examination of VZMS units for the presence of liquid.

7.4.2 Requirement to Sample

If fluids are detected in VZMS monitoring wells or sumps upon inspection required in Permit Condition 7.4.1.a, ~~T~~the Permittee shall~~1~~ collect a sample of vadose zone fluid ~~monthly~~ at each monitoring point containing fluid as detailed in Attachment K, Section 4.1 *Monitoring Frequency* and Attachment K, Section 4.3,

Monitoring Method. A sample shall be collected immediately when fluids are first detected at each monitoring point.

7.4.3 Fluid Elevation Measurement

The Permittee shall determine fluid elevation at each well and sump, referenced to mean sea level, each time fluid is detected as specified at Permit Attachment K, Section 4.4, *Sample Collection*.

7.4.4 Fluid Purging

The Permittee shall evacuate fluids in the monitoring points to the surface as specified at Permit Attachment K, Section 4.4, *Sample Collection*.

7.4.5 Decontamination

The Permittee shall ensure that reusable sampling equipment is decontaminated as specified at Permit Attachment K, Section 4.9, *Decontamination*.

7.4.6 Equipment Calibration

The Permittee shall ensure that field measuring instruments are calibrated as specified at Permit Attachment K, Section 4.8, *Field Equipment*.

7.4.7 Sample Containerization

The Permittee shall place fluid samples in containers as specified at Permit Attachment K, Section 4.4, *Sample Collection*.

7.4.8 Quality Assurance Samples

The Permittee shall assure sample quality as specified at Permit Attachment K, Section 4.6, *Quality Assurance Samples*.

7.4.9 Sample Preservation

The Permittee shall preserve samples as specified at Permit Attachment K, Section 4.5, *Sample Preservation*.

7.4.10 Sampling Record

The Permittee shall ensure that sampling activities as specified at Permit Attachment K, Section 6.1, *Field Documentation* are recorded in the Operating Record ~~as specified at Permit~~

~~Attachment K, Section 6.1, *Field Documentation*~~, and in accordance with Permit Condition 7.7.1. The sampling record shall include the Quarterly Well Inspection Logs (containing information required in Permit Condition 7.4.1) and Monitoring Field Logs (containing information required in Permit Conditions 7.4.2-7.4.9).

7.5 RELEASE ASSESSMENT

The Permittee shall conduct a release assessment to determine whether fluids detected in each monitoring location in the VZMS may have originated from within a regulated unit ~~in accordance with Permit Condition 7.4.2~~. This information shall be recorded and reported in accordance with Permit Condition 7.7. If the data analysis indicate that a release has occurred, the Permittee shall initiate the corrective action requirements of Permit Part 10, including the verification sampling requirements of Permit Condition 10.3.2. The release assessment shall be performed using the following techniques and procedures:

7.5.1 VZMS Sample Analysis

The Permittee shall analyze VZMS samples for the non-leachate indicator parameters specified at Permit Attachment K, Table 1, in addition to any leachate indicator parameters identified in Permit Condition 7.3.3 ~~Section 6.4, *Data Analysis* and Permit Condition 7.3.2.~~ As indicated in Permit Condition 7.3, ~~I~~indicator parameters shall consist of a combination of chemical constituents measured in leachates determined in accordance with Permit Condition 7.3.3 and ~~the major ions and metals established in the baseline~~ for non-leachate~~s~~ parameters specified in Table 1, Attachment K. The list of VZMS analytes will evolve as additional waste streams are placed into the regulated unit.

COMMENT: I suggest that we attach a list of indicator parameters that the facility will revise as a permit attachment (GvG)—not possible because the leachates have not yet been determined; could, however, include Table 1.

7.5.1.a Release determination

A release determination shall be performed by evaluating VZMS monitoring data ~~indicator parameters~~ for a significant change in ~~baseline~~ non-leachate chemical concentrations ~~ratios~~ with respect to the indicator parameter list and/or the detection of any anthropogenic hazardous constituents. Trilinear diagrams will be used to graphically determine any significant changes in the

following non-leachate parameters: bicarbonate, chloride, dissolved major cations (Na, K, Mg, Ca, Fe), total dissolved solids, and sulfate. Trilinear diagrams shall be constructed for non-leachate (baseline) data and VZMS monitoring data. A tolerance interval statistical procedure, as described in Permit Attachment Q - Statistics, will be used to determine statistically significant changes in the following non-leachate parameters: dissolved and total metals (Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Hg, Ni, Se, Ag, Ti, Zn) and radionuclides (gross alpha, gross beta, gamma emitters, total uranium, radium 226/228, radon). Tolerance intervals shall be calculated for non-leachate (baseline) data. ~~Evaluations of non-leachate baseline values shall be made by plotting major ions (calcium, magnesium, potassium, sodium, bicarbonate, sulfate and chloride) on trilinear diagrams. Metals, radionuclides and A~~all other non-leachate~~baseline~~ chemical constituents and VZMS monitoring data specified by the Secretary shall be presented in a tabular format. All baseline constituents will be compared with VZMS monitoring data after consecutive sampling events and over time. Any significant change in major ion ratios (i.e., the shape of the trilinear diagram), or statistically significant change in non-leachate ~~constituentbaseline chemical constituent concentration in~~ VZMS analyte samples will be considered ~~to~~ indicative of a release and the Permittee shall initiate the corrective action requirements of Permit Part 10. ~~Significant change, if not obvious, shall be determined in accordance with the statistical procedure of Permit Attachment Q, *Statistics*.~~

Leachate constituents and organic non-leachate parameters in VZMS samples shall be measured using the detection limits specified in Permit condition 7.5.4. Any detection of an anthropogenic hazardous constituent in VZMS samples will be considered ~~to be~~ indicative of a release and the Permittee shall initiate the corrective action requirements of Permit Part 10.

7.5.1.b Analytical methods

The Permittee shall utilize the appropriate analytical methods for baseline constituents as specified at Permit Attachment K, Table 1, *Baseline Chemical Analysis*. Analytical methods for leachate constituents will be chosen from the most current edition of EPA=s *Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods* (SW-846) and proposed to the Secretary for approval.

7.5.2 Evaluation Frequency

The release assessment shall be conducted each time fluid samples are collected in accordance with Permit Condition 7.4.2, at each monitoring point specified at Permit Condition 7.2.1, and as specified at Permit Attachment K, Section 6.4, *Data Analysis*.

7.5.3 Reporting~~Compliance~~ Schedule

The Permittee shall perform the evaluations specified at Permit Condition 7.5.1 within 30 days after completion of sampling. The 30 day evaluation period includes the time required to perform laboratory analysis. The Permittee may petition the Secretary in writing for an extension to the 30-day evaluation period. The reasons for extending the 30-day evaluation period shall be presented in the petition. The Secretary will approve or disapprove the extension petition in writing within ten calender days of receipt of the petition. Results shall be included in subsequent Quarterly Reports unless a release is detected, in which case the NMED shall be notified immediately of the release and provided information pertaining to the release in writing within 15 days after the close of the 30-day evaluation period as specified in permit condition 7.5.7.

7.5.4 Detection Limits

Analytical detection limits shall be below appropriate State or federal drinking water standards, or below the universal treatment standards (UTS) specified at 20.4.1.800 NMAC, incorporating 40 CFR 268.40, whichever is more stringent.

7.5.5 Laboratory QA/QC

The Permittee shall ensure that analyses required by Permit Condition 7.5.1 shall be performed using the laboratory quality assurance/quality control (**QA/QC**) measures specified at Permit Attachment K, Section 5.2, *Laboratory Quality Assurance/Quality Control*.

7.5.6 Data Validation

The Permittee shall ensure that all laboratory analytical data shall be presented in accordance with the most current version of EPA Document, *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, Third Edition* documentation packages. Data validation shall be conducted as specified at Permit Attachment K, Section 5.3, *Data Review, Validation, and Verification Requirements*.

7.5.7 Data Presentation

If a release is detected, The Permittee shall immediately notify the NMED and shall present the VZMS analytical data for comparison with the baseline data to NMED within 45 days of sample collection and in a form that is conducive to determining the presence of a release. The analytical information shall be presented as specified at Permit Attachment K, Section 6.4, *Data Analysis*. If a release is not detected, data shall be presented in the subsequent Quarterly Report.

7.5.8 Alternate Indicator Parameters

The Permittee may propose to the Secretary an alternate list of indicator parameters that could be used to analyze vadose zone fluids and that shows contamination by leachates. If the Secretary agrees that the alternate list is protective of human health and the environment, the Permittee shall submit a permit modification request in accordance with Permit Condition 1.2.4 to incorporate the alternate list of indicator parameters.

7.6 VZMS MAINTENANCE

The Permittee shall maintain the VZMS as specified at Permit Attachment L, *Operation and Maintenance Plan*. A summary of operation and maintenance activities shall be reported to the Secretary in the Quarterly Report in accordance with Permit Condition 7.7.2.

7.7 RECORD KEEPING AND REPORTING

7.7.1 Record Keeping

The Permittee shall enter, at a minimum, the following VZMS information into the Operating Record in accordance with Permit Condition 2.12.1:

- well survey information (Permit Condition 7.2.1.~~g~~f)
- geologic core (Permit Condition 7.2.2.e)
- ~~$ Well Completion and Lithologic Logs (Permit Condition 7.2.2.h)~~
- ~~$ leachate chemistry (Permit Condition 7.3.2.a)~~

~~$ total waste chemistry (Permit Condition 7.3.2.b)~~
~~$ Appendix IX analysis (Permit Condition 7.3.2.c)~~
~~$ sampling activities (Permit Condition 7.4.1)~~
~~$ fluid elevation measurements (Permit Condition 7.5.3)~~
~~$ VZMS inspection reports (Permit Condition 7.7.1)~~

- VZMS analytical results that indicate a release and which are collected between Quarterly Sampling Reports, and associated Well Inspection Logs and Monitoring Field Logs sampling information (Permit Condition 7.5.3, 7.4.1, and 7.4.10~~7.7.2~~)

~~$ sample collection and preservation (Permit Condition 7.7.3)~~
~~$ data evaluation (Permit Condition 7.7.4)~~
~~$ non-leachate removal (Permit Condition 7.1.3)~~

7.7.2 Reporting

The Permittee shall report the following information to the Secretary as specified at Permit Attachment K, Section 6.4, *Data Reporting*.

7.7.2.a First quarterly report

The following information shall be submitted in the first Quarterly Report and shall be included in the Operating Record.

~~$ Well Completion Logs (7.2.2.h)~~
~~$ baseline values (7.3.1.b)~~
~~$ fluid chemistry (7.3.2.a)~~
$ Well Completion and Lithologic Logs (Permit Condition 7.2.2.h)
$ non-leachate indicator parameter list and associated computations (Permit Condition 7.3.1 and 7.7.2.d)
$ initial leachate indicator parameter list(Permit Condition 7.3.2) based on monthly F-039 and the first Appendix IX analysis
$ VZMS analytical results collected during the first quarter, and associated Well Inspection Logs and Monitoring Field Logs sampling information (Permit Conditions 7.5.3, 7.4.1, and 7.4.10)

7.7.2.b Quarterly reports

The following information shall be submitted in all Quarterly Reports which shall be included in the Operating Record.

- ~~$ fluid chemistry (Permit Condition 7.3.2.a)~~
- ~~$ fluid elevation data (Permit Condition 7.5.3)~~
- ~~$ vadose zone system inspection reports (Permit Condition 7.7.1)~~
- ~~$ vadose zone system analytical results (Permit Condition 7.7.2)~~
- ~~$ sample collection and preservation procedures(Permit Condition 7.7.3)~~
- ~~$ data evaluation (Permit Condition 7.7.4)~~
- ~~$ operation and maintenance report (Permit Condition 7.7.5)~~
- non-leachate removal (Permit Condition 7.1.3)
- Indicator Parameter List including non-leachate parameters and leachate parameters, revisions to the list based on Quarterly/Biennial leachate sampling results, and evaluations used to derive this list (Permit Condition 7.3)
- Monthly Leachate Sampling results for that quarter (Permit Condition 7.3.2.a)
- Summary of Appendix IX results included in the previous Biennial Sampling Event
- VZMS analytical results collected during the quarter, and associated Well Inspection Logs and Monitoring Field Logs sampling information (Permit Conditions 7.5.3, 7.4.1, and 7.4.10)

7.7.2.c Biennial reports

The following information shall be submitted in the Biennial Reports which shall be included in the Operating Record:

- Appendix IX analysis (Permit Condition 7.3.2.c)
- ~~$ total waste chemistry (Permit Condition 7.3.2.b)~~
- Indicator Parameter List modification based on Appendix IX analysis, and evaluations used to derive this list (Permit Condition 7.3)

7.7.2.d Special Reports

The following information shall be submitted in special reports for inclusion in the Operating Record:

- well plugging and abandonment (~~7.12~~7.9)
- release information (7.1.2)
- monthly reports as long as there are fluids in the VZMS
- Non-leachate parameter list and computations necessary to determin non-leachate parameter list (Permit Condition 7.3.1.b)

7.7.2.e VZMS Report Supervision

A professional geologist or engineer shall supervise all VSMS report preparation.

7.8 REQUEST FOR PERMIT MODIFICATION

If at any time the Permittee or the Secretary determines that the vadose zone monitoring program is no longer protective of human health or the environment, the Permittee shall, within 90 days of the determination, submit an application for a modification to make any necessary and appropriate modifications.

7.9 WELL PLUGGING AND ABANDONMENT

The Permittee shall plug and abandon any well(s) that no longer serve the function for which it was intended. The Permittee shall submit a work plan to plug and abandon the well. Once the work plan is approved by the Secretary, the Permittee shall submit a Permit modification request to the Secretary in compliance with 20.4.1.900 NMAC, incorporating 40 CFR 270.42. The Permittee shall plug and abandon any monitor well in a manner which eliminates physical hazards, prevents ground water or vadose zone contamination, conserves hydrostatic head, and prevents intermixing of subsurface waters. The Permittee shall submit a report to the Secretary which summarizes and certifies monitoring well plugging and abandonment procedures, in accordance with this Permit Condition, within 90 calendar days from the date a monitoring well is plugged and abandoned.

PERMIT PART 8

CLOSURE AND POST-CLOSURE CARE

HIGHLIGHTS

This Permit Part contains closure and post-closure care conditions for each permitted unit at the Triassic Park Hazardous Waste Disposal Facility (the Facility). Also included are financial responsibility requirements for the Permittee for closure and post-closure care.

The Permittee may close the entire Facility (final closure) or any permitted unit at the Facility (partial closure) after notification to the Secretary. The Permittee will update Permit Attachment O, *Closure Plan*, for the Surface Impoundment and the Landfill through Permit modification prior to closure of these units. The Permit modification may also include modification of Permit Attachment P, *Post-Closure Care Plan*.

All permitted units except the Landfill are expected to clean close. The term "clean close" is defined as a closure performance standard requiring removal of hazardous waste and/or hazardous constituents to statistically-based background concentrations, rather than to health-based risk concentrations (Reference Permit Condition 8.1.1.a.ii for further details.) Any ~~of these~~ unit~~s~~ ~~which~~that cannot be clean closed must be closed as a landfill through Permit modification of Permit Attachments O and P. Remediation activities which may be necessary at any permitted unit will be regulated under Permit Part 9.

Post-closure care requirements at the completion of closure include maintenance and monitoring of the Landfill Phase 1A cap; storm water collection system, leak detection systems, and Vadose Zone Monitoring System (VZMS); site inspections and security; and, if necessary, a ground water monitoring system. The Permittee must modify the Permit to include post-closure care requirements, including maintenance, monitoring, reporting, and, if necessary, corrective action, at any other permitted unit(s) at the Facility that cannot be clean closed by removal and decontamination in accordance with Permit ~~Part~~Attachment O.

8.1 CLOSURE

8.1.1 General Requirements for Closure

The Permittee shall close the Facility, or any permitted unit at the Facility, as specified at Permit Attachment O, and in compliance with this Permit Part and 20.4.1.500 NMAC, incorporating 40 CFR 264.110 through 264.116, and in accordance with the time schedules contained at Permit Attachment O1, ~~Appendix O1, *Compliance*~~ *Schedule~~s~~ for Closure*.

8.1.1.a Performance Standards

8.1.1.a.i General Performance Standard

At closure of the Facility or any permitted unit at the Facility, the Permittee shall, in compliance with the performance standard contained at 20.4.1.500 NMAC, incorporating 40 CFR 264.111:

- minimize the need for further maintenance; and
- control, minimize, or eliminate, to the extent necessary to protect human health and the environment, the post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to surface or subsurface soils, ground or surface waters, or the atmosphere.

8.1.1.a.ii Clean Closure Performance Standard

At closure, all permitted units with the exception of the Landfill shall close in accordance with the clean closure performance standard specified at Permit Attachment O, Section 8.3, *Closure Performance Standard*.

Clean closure is achieved for a permitted unit when waste analysis of potentially contaminated materials, soils, or leachate does not detect the presence of hazardous waste or hazardous constituents, or when any hazardous waste or hazardous constituent contained in soils or fluids removed from, below, or adjacent to a permitted unit is not above background concentrations identified at Permit Attachment U, *Background Concentrations*, Appendices U1, *Background Concentrations for Soil*, and U2, *Baseline Values for Non-Leachates*, in statistically

significant concentrations, as determined in Permit Attachment Q, *Statistics*. [Note: TechLaw did not have these attachments.]

8.1.2 Closure Plan Modification

8.1.2.a Amendment When Necessary

The Permittee shall amend the Closure Plan through Permit modification, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.112(c)(2), whenever:

- changes in operating plans or Facility design affect the Closure Plan;
- there is a change in the expected year of closure; or
- unexpected events during partial or final closure require a modification of the approved Closure Plan.

The modified Closure Plan shall identify the steps necessary to perform closure of a permitted unit or the Facility at any point during its active life in compliance with the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264.112(b).

The modified Closure Plan shall be approved by the Secretary, in writing, prior to implementation. If the Secretary does not approve the modified Closure Plan submitted by the Permittee, the Secretary will notify the Permittee, in writing, of Closure Plan deficiencies and will specify a due date for submission of a revised Closure Plan. Upon approval by the Secretary, the modified Closure Plan, including revised schedules of implementations, and any additions to the modified Closure Plan, shall be incorporated into this Permit by replacement or modification, as appropriate, of Permit Attachment O and Appendix O1, and made an enforceable part of this Permit.

8.1.2.b ——Landfill and Surface Impoundment Closure Plan Modification Prior to Closure

The Permittee shall amend the Closure Plan for the Landfill and Surface Impoundment through Permit modification, and submit the amended Plan to the Secretary for approval 180 calendar days prior to the commencement of partial or final closure activities. [Regulatory issue: 40 CFR 264.112(c), "Amendment of Plan," requires submittal of an amended closure plan 60 days prior to the proposed change in facility design or operation. 20.4.1.500

NMAC does not provide for a more stringent submittal period of 180 days. Unless the 180-day submittal period is supported by NMED precedent, policy, or negotiation with the Permittee, this requirement should be revised to 60 days prior to commencement of partial or final closure activities.] The Permit modification must provide implementation schedules, a discussion of closure activities in accordance with appropriate parts of Permit Conditions 8.1.10, 8.1.11, and 8.3, and detailed plans and specifications for the Landfill cover and revegetation of the Landfill and Surface Impoundment.

8.1.2.c ——Tank System or Surface Impoundment Closure Plan Modification

If, at closure, the Permittee determines that the clean closure performance standard contained at Permit Condition ~~8.1.2~~ 8.1.1.a.ii cannot be met at the Liquid Waste Storage Tank Area, the Stabilization Building, or any tank system, the Surface Impoundment, or any other permitted unit included in this Permit or which may be added to this Permit, the Permittee shall prepare and submit to the Secretary for approval a Permit modification request to amend Permit Attachment O, as it pertains to the affected area or unit, in accordance with all the closure, post-closure, and financial responsibility requirements that apply to landfills, and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.310(b), pursuant to 20.4.1.500 NMAC, incorporating 40 CFR 264.112(c)(3) and 264.197(b).

This Permit modification request shall be submitted no later than 60 calendar days after the Permittee or Secretary has determined that the affected unit must close as a landfill, or no later than 30 calendar days if the determination is made during partial or final closure of the affected unit.

8.1.2.d ——Receipt of Non-Hazardous Waste

The Permittee may request a modification to receive nonhazardous waste for disposal in the Landfill or the surface impoundment after the final receipt of hazardous waste at ~~the Landfill,~~ either unit, in accordance with 20.4.1.500 NMAC, incorporating 40 CFR 264.113(d).

8.1.2.e ——Modification Required by the Secretary

The Secretary may require Closure Plan modification under the conditions described at Permit Condition 8.1.2.a, in accordance with 20.4.1.500 NMAC, incorporating 40 CFR 264.112(c)(4).

8.1.3 ——Closure Schedule

8.1.3.a Notification of Closure

The Permittee shall notify the Secretary of the start of Closure Plan implementation at least 45 calendar days prior to the date on which the Permittee expects to begin closure of the Drum Storage Unit, the Roll-Off Container Storage Unit, the Liquid Waste Storage Tank Area, the Stabilization Building, or an individual tank system; or 60 calendar days prior to the date on which the Permittee expects to commence closure of the Surface Impoundment or the Landfill, as specified at Permit Attachment O, Section 8.1, *Closure Activities*, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.112(d)(1).

8.1.3.b Time Schedule for Closure

Within 90 calendar days after receiving the final volume of hazardous wastes, or the final volume of non-hazardous wastes if receipt of non-hazardous wastes is approved by the Secretary in accordance with Permit Condition 8.1.2.d, the Permittee shall treat~~;~~, remove from the unit to be closed or from the Facility~~;~~, and/or dispose of in the Landfill, all hazardous wastes, in accordance with the schedules specified at Permit Attachment O, Attachment~~ppendix~~ O1, *Schedule for Closure*, and shall meet the conditions for closure contained at 20.4.1.500 NMAC, incorporating 40 CFR 264.113.

The Secretary may approve a longer closure period if the Permittee complies with all applicable requirements for requesting a Permit modification for this purpose and submits the demonstrations to justify a time extension required at 20.4.1.500 NMAC, incorporating 40 CFR 264.113(a)(1) and ~~264.113(a)~~(2).

8.1.4 ——Closure Activities

8.1.4.a ——Proper Disposal of Equipment, Structures, and Soils

During the partial and/or final closure periods, the Permittee shall properly dispose of or decontaminate all contaminated equipment, structures, and soils as specified at Permit Attachment O, Section 8.1, *Closure Activities*, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.114.

By removing any hazardous wastes or hazardous constituents during closure activities, the Permittee may become a generator of hazardous waste, and shall handle that waste in accordance with

all applicable requirements of 20.4.1.300 NMAC, incorporating 40 CFR Part 262. Closure of Facility units by removal or decontamination shall include removal of all hazardous waste and contaminated media.

The soil performance standard for closure shall be based upon background analyte soil concentrations. Procedures for determining statistically-based background soil concentrations shall be provided in the updated Closure Plan identified in Permit Condition 8.1.1.a.ii.

8.1.4.b Clean Closure Confirmation

The Permittee shall confirm that contamination is no longer present at, beneath, or outside the boundaries of any permitted unit(s) undergoing clean closure. Confirmation of the removal of all waste and contaminated media shall include sampling of surface water, ground water, and other fluids beneath or outside the boundaries of the Facility or unit(s) being closed; and collecting surface soil samples within the unit(s) at intervals of one per every 500 square feet~~ft~~^{2} and one per every 20 lineal feet and/or at unit-specific intervals, depths, and locations specified by the Secretary. Sampling shall be conducted at the locations specified at Permit Attachment O and at any additional locations which may be required under Permit Parts 9 and 10.

8.1.4.c Sampling Plan

Ninety days prior to implementation of the Closure Plan for the Facility or any permitted unit at the Facility, the Permittee shall submit to the Secretary for approval a Sampling and Analysis Plan for Closure for the Facility or the permitted unit undergoing closure. The Plan for each permitted unit will follow the outline specified at Permit Attachment O, Section 8.1.1.2, *Decontamination of Equipment and Dismantling of Building Structure*. The Sampling Plan will also propose indicator parameters representative of the wastes stored or treated in each unit during its operating life, as specified at Permit Attachment O, Section 8.3.

[Regulatory issue: 40 CFR 264.112(a), "Written Plan," requires submittal of a closure plan with the Part B permit application. Since the sampling plan, including indicator parameters, is at the heart of the closure plan, it should also be submitted with the permit application. Therefore, the 90-

day submittal requirement of this permit condition appears to be inapplicable. In the case where the sampling plan requires amendment, it should be submitted in accordance with 40 CFR 264.112(c), "Amendment of Plan," which requires submittal of an amended closure plan 60 days prior to the proposed change in facility design or operation. Unless the 90-day submittal period for a sampling plan is supported by NMED precedent, policy, or negotiation with the Permittee, this requirement should be revised to address submittal of the sampling plan with the permit application, and for an amended sampling plan, the plan must be submitted 60 days prior to commencement of partial or final closure activities.]

8.1.5 Closure Certification

Within 60 calendar days following completion of closure of the Facility or any permitted unit at the Facility, the Permittee shall submit to the Secretary, by registered mail, hand delivery, or special delivery service, a certification that the Facility or the permitted unit undergoing closure has been closed in accordance with the specifications contained in the approved Closure Plan, [Regulatory issue: 40 CFR 264.115 does not explicitly require compliance with the remainder of the references in this sentence, although they should be implicitly expected to be addressed in an "approved closure plan."] this Permit Part, and 20.4.1.500 NMAC, incorporating 40 CFR 264.110 through 116. The certification shall be signed by the Permittee and by an independent professional engineer registered in New Mexico, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.115. Documentation supporting the independent registered professional engineer's certification must be furnished to the Secretary upon request until he releases the Permittee from the financial assurance requirements for closure under 20.4.1.500 NMAC, incorporating 40 CFR 264.143(i).

8.1.6 Survey Plat

No later than the date of submission of the closure certification required at Permit Condition 8.1.5, the Permittee shall submit a survey plat of the closed Facility or the permitted unit undergoing closure to the local zoning authority or the authority

with jurisdiction over local land use, and to the Secretary, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.116. The survey plat shall indicate the location and dimensions of landfill cells or hazardous waste disposal units with respect to permanently surveyed benchmarks. This plat must be prepared and certified by a professional land surveyor. The plat filed with the local zoning authority, or the authority with jurisdiction over local land use, must contain a note, prominently displayed, which states the Permittee's obligation to restrict disturbance of the hazardous waste disposal unit in accordance with the applicable regulations found at 40 CFR 264 Subpart G.

8.1.7 Recordkeeping and Reporting Requirements

8.1.7.a Sampling Records

The Permittee shall ensure that the records for sampling and analysis activities of all media required in accordance with Permit Conditions 8.1.4.b and 8.1.4.c are maintained at the Facility. This documentation shall include records for sampling of soil, surface water, and groundwater (including vadose zone). Vadose zone monitoring records shall be maintained~~,~~ as specified at Permit Attachment I, *Vadose Zone Monitoring System Work* Plan, Section *6.1, Field Documentation*. The sampling record shall include the monthly ~~W~~well ~~I~~inspection ~~L~~logs and ~~M~~monitoring ~~F~~field ~~L~~logs.

8.1.7.b Quarterly Reports

The Permittee shall submit brief Quarterly Reports on closure activities for the Facility or a permitted unit undergoing closure until closure certification for the Facility or the permitted unit undergoing closure is submitted to the Secretary in accordance with Permit Condition 8.1.5. These reports may be combined with the Quarterly Reports required at Permit Condition 2.12.2.b. The reports must summarize:

- monitoring results for the Leachate Collection and Removal System (LCRS) and Leak Detection and Removal System (LDRS) at the Landfill;
- monitoring results for the Vadose Zone Monitoring System (VZMS) sump at the Landfill and for the Landfill and Surface Impoundment VZMS wells;

- closure activities during the previous quarter;
- activities planned for the next quarter; and
- any variance from the approved Closure Plan and the reason for the variance.

8.1.7.c Final Closure Report

The Permittee shall submit a Final Closure Report to the Secretary within 60 days following submittal of the closure certification, which is required under Permit Condition 8.1.5. The Report must contain, at a minimum:

- a summary of activities conducted under closure;
- a summary of variances from the approved Closure Plan;
- laboratory sample analysis sheets for all analysis conducted during closure;
- laboratory analysis summary tables;
- sampling and analysis quality assurance/quality control (QA/QC) documentation; and
- types, amounts, and disposal locations of all hazardous wastes placed in the Landfill.

[Regulatory issue: It is unclear where the regulatory authority for this request is derived since it is not directly provided for in the federal or state closure regulations. The request for a final closure report supports the closure certification and, therefore it would make sense for the report to be submitted with the certification, not 60 days later.]

8.1.8 Closure Requirements for Containers

The Permittee shall conduct closure activities for the Drum Handling Unit and/or the Roll-Off Container Storage Unit as specified at Permit Attachment O, Sections 8.1.1, *Drum Handling Unit*, and 8.1.5, *Roll-Off Storage Area*, and other pertinent sections; and in compliance with this Permit Part and 20.4.1.500 NMAC, incorporating 40 CFR 264.111 through 264.116 and 264.178. The Drum Handling Unit and the Roll-Off ~~Container~~ Storage Area shall be clean closed as specified at Permit Attachment O,

Section 8.3, *Closure Performance Standard,* through removal, decontamination, and proper disposal of remaining containers, liners, bases, buildings, and soil, in accordance with Permit Condition 8.1.1.a.ii.

8.1.9 Closure Requirements for Tanks

The Permittee shall conduct closure activities for the Liquid Waste Storage Area, the Stabilization Building, or any tank system unit, as specified at Permit Attachment O, Section 8.1.3, *Liquid Waste Receiving and Storage Unit*, and 8.1.4, *Stabilization Unit*, and other pertinent sections; and in compliance with this Permit Part and 20.4.1.500 NMAC, incorporating 40 CFR 264.111 through 116 and 264.197.

The Permittee shall achieve the clean closure performance standard specified at Permit Attachment O, Section 8.3, *Closure Performance Standard,* for all tank areas or tank units, in accordance with Permit Condition ~~8.1.2~~8.1.1.a.ii, through removal or decontamination of all waste residues, contaminated containment system components (liners, etc.), contaminated soils, and structures and equipment contaminated with waste. If a tank storage or treatment area or a tank system cannot be clean closed, the Permittee shall submit a request for Permit modification to the Secretary to close the unit as a landfill, in accordance with Permit Condition ~~8.2.3~~8.1.2.c. The Permit modification must contain plans and specifications for a final cover, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.310(a).

8.1.10 Closure Requirements for the Surface Impoundment

8.1.10.a Surface Impoundment Closure Activities

The Permittee shall conduct closure activities for the Surface Impoundment in compliance with Permit Attachment O, Section 8.1.2, *Evaporation Pond*, and other pertinent sections; and the modified Closure Plan required at Permit Condition 8.1.10.b; and in compliance with this Permit Part and 20.4.1.500 NMAC, incorporating 40 CFR 264.111 through 264.116 and 264.228. The Permittee shall achieve the clean closure performance standard identified at Permit Condition 8.1.1.a.ii.

8.1.10.b Surface Impoundment Permit Modification

Prior to closure, the Permittee shall submit a request for Permit modification of the Closure Plan as it pertains to the Surface Impoundment to the Secretary in accordance with Permit Condition

8.1.2.b. The Permit modification must describe closure activities to meet the clean closure standard specified at Permit ~~Attachment O, Section 8.3~~Condition 8.1.1.a.ii.

8.1.10.c Permit Modification for Closure as a Landfill

If the Surface Impoundment cannot be clean closed, the Permit modification required in accordance with Permit Condition 8.1.10.b must include closure and post-closure care activities and financial responsibility requirements to close the Surface Impoundment as a Landfill, in accordance with Permit Condition 8.1.2.c. The Permit modification must contain plans and specifications for a final cover, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.310(a).

8.1.10.d Removal of Hazardous Waste

At clean closure of the Surface Impoundment, the Permittee shall eliminate free liquids by evaporation of the liquid wastes and solidification of all remaining hazardous wastes and hazardous waste residues, as specified at Permit Attachment O, Section 8.1.2, *Evaporation Pond;* and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.228(a).

8.1.10.e Decontamination

At closure of the Surface Impoundment, the Permittee shall remove or decontaminate all waste residue, contaminated containment systems and LDRS and VZMS sump components, contaminated subsoils, and any contaminated structures and equipment at the Surface Impoundment, as specified at Permit Attachment O, Section 8.1.2.3, *Removal and Disposal of Liner and Leachate Collection System;* in accordance with Permit Condition 8.1.4.a; and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.228(a). Liners and sump systems may be disposed of as hazardous debris.

8.1.10.f Restoration

At closure, the Permittee shall ensure that the Surface Impoundment area is restored to the approximate original grade, and revegetated, as specified at Permit Attachment O, Section 8.1.2.5, *Filling and Revegetating.*~~, and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.228(a)(2)(i).~~ [40 CFR 264.228(a)(i) applies to closure of a surface impoundment as a landfill, but not "clean closure."]

8.1.10.g Surface Impoundment Well Monitoring

The Permittee shall continue the Surface Impoundment vadose zone well monitoring required at Permit Condition 5.6.2 on a monthly basis during the closure period, as specified at Permit Attachment I, Section 4.1, *Monitoring Frequency*. The Permittee shall sample at each monitoring point containing fluid, and shall otherwise comply with the requirements of Permit Conditions 7.4.3 through 7.4.9. If a release has occurred, the Permittee shall comply with all the release assessment requirements contained at Permit Condition 7.5.

8.1.11 Closure Requirements for the Landfill

8.1.11.a Landfill Closure Activities

The Permittee shall conduct closure activities as specified at Permit Attachment O, Section 8.1.6, *Landfill*, and other pertinent sections; and the modified Closure Plan required at Permit Condition 8.1.11.b; and in compliance with this Permit Part and 20.4.1.500 NMAC, incorporating 40 CFR 264.111 through 264.116 and 264.310.

8.1.11.b Landfill Permit Modification

Prior to closure, the Permittee shall submit a request for Permit modification of the Closure Plan as it pertains to the Landfill to the Secretary in accordance with Permit Condition 8.1.2.b. The Permit modification shall provide details on a final Landfill cover and revegetation that meet all the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264.310(a).

8.1.11.c Landfill Cover

The Permittee shall cover the Landfill at closure with a final cover as specified at Permit Attachment L, *Engineering Report and Drawings*, Section 3.1.5, and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.310(a).

8.1.11.d Landfill VZMS Monitoring

The Permittee shall continue the vadose zone monitoring required at Permit Condition 6.6.2 on a monthly basis during the closure period, as specified at Permit Attachment I, Section ~~4.0~~4.0. The

Permittee shall sample at each monitoring point containing fluid, and shall otherwise comply with the requirements of Permit Conditions 7.4.3 and 7.4.9. If waste analysis shows that a release has occurred, the Permittee shall comply with the release assessment requirements contained at Permit Condition 7.5. Recordkeeping shall be performed in accordance with Permit Condition 2.12.1.k.i.

8.2 POST-CLOSURE CARE

8.2.1 General Post-Closure Care Requirements

8.2.1.a Landfill

The Permittee shall ensure that post-closure care activities at the Landfill are conducted as specified at Permit ~~Part~~Attachment P, *Post-Closure Care Plan,* Section 8.2, *Post-Closure Activities;* and in compliance with this Permit Part and 20.4.1.500 NMAC, incorporating 40 CFR 264.117 through 264.120.

8.2.1.b Permitted Units Which Cannot Clean Close

The Permittee shall provide post-closure care through Permit modification, in accordance with Permit Condition 8.2.2, for any permitted unit where closure of the units by decontamination and removal is not accomplished.

8.2.2 Post-Closure Care Plan Modification

8.2.2.a Amendment When Necessary

The Permittee shall submit an updated or new Post-Closure Care Plan to the Secretary for approval, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.118(d), whenever:

- changes in operating plans or Facility design affect the Post-Closure Care Plan;
- there is a change in the expected year of final closure; or
- events that occur during the active life of the Facility, including partial and final closures, affect the approved Post-Closure Care Plan.

The Permittee shall submit a written request for a Permit modification at least 60 calendar days prior to the proposed change in Facility design or operation, or no later than 60 calendar days after an unexpected event has occurred which has affected the Post-Closure Care Plan, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.118(d)(3).

The updated Post-Closure Care Plan shall be approved by the Secretary, in writing, prior to implementation in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.118(d)(3). If the Secretary does not approve the updated Post-Closure Care Plan, the Secretary will notify the Permittee, in writing, of the Post-Closure Care Plan deficiencies, and will specify a due date for submittal of a revised Post-Closure Care Plan. Upon approval by the Secretary, the updated or new Post-Closure Care Plan will be incorporated into this Permit by modification or replacement of Permit Attachment P, and made an enforceable part of this Permit.

8.2.2.b Surface Impoundment Post-Closure Care Plan Modification

If the Permittee or the Secretary determines that the Surface Impoundment must be closed as a landfill, the Permittee shall, within 90 days of such determination, submit to the Secretary for approval a revised Post-Closure Care Plan detailing post-closure care requirements for the Surface Impoundment, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.117 through 264.120, 264.228(b), and 264.310, pursuant to 20.4.1.500 NMAC, incorporating 40 CFR 264.118(a).

8.2.2.c Tank System Post-Closure Care Plan Modification

If the Permittee demonstrates that the Liquid Waste Storage Tank Area, the Stabilization Building, or any tank system cannot clean close in accordance with Permit Condition 8.1.1.a.ii, the Permittee shall submit to the Secretary for approval a revised Post-Closure Care Plan detailing post-closure care requirements in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.117 through 264.120, 264.197, and 264.310, for the affected tank area or unit, pursuant to 20.4.1.500 NMAC, incorporating 40 CFR 264.197(b).

8.2.2.d Modification Requested by the Secretary

The Secretary may request Post-Closure Care Plan modification under the conditions described at Permit Condition 8.2.2.a, in accordance with 20.4.1.500 NMAC, incorporating 40 CFR 264.118(d)(4).

8.2.3 Post-Closure Care Time Schedules

The Permittee shall implement post-closure care requirements for 30 years after completion of closure of the Landfill or any permitted unit(s) closed with contamination in place, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.117(a)(1).

At any time, the Secretary may, in accordance with 20.4.1.500 NMAC, incorporating 40 CFR 264.117(a)(2):

- shorten the post-closure period if the Secretary finds that human health and the environment are protected sufficiently (e.g., leachate or ground water monitoring results, characteristics of the hazardous wastes, application of advanced technology, or alternative disposal, treatment or re-use techniques indicate that the unit or Facility is secure); or

- extend the post-closure care period if the Secretary determines that this is necessary to protect human health and the environment (e.g., leachate or ground water monitoring results indicate a potential for migration of hazardous wastes at levels which may be harmful to human health or the environment).

8.2.4 Post-Closure Care Requirements for the Landfill

The Permittee shall comply with the requirements for the Landfill specified at Permit Attachment P, ~~Section 8.2.2, *Closure and Post-Closure Care Plan of Permitted Units*~~, Section 8.2.2, Landfill Final Cover, and 20.4.1.500 NMAC, incorporating 40 CFR 264.310(b). The Permittee shall maintain and monitor the leachate and vadose zone monitoring systems (and ground water monitoring system if required by the Secretary), the Landfill cover, and the storm water collection system, and shall comply with all other applicable requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264, Subpart F and 264.310(b), during the post-closure care period, in compliance with 40 CFR 264.117(a)(1).

8.2.4.a Cover Maintenance

The Permittee shall maintain the integrity and effectiveness of the final Landfill cover, including making repairs to the cover as necessary to correct the effects of settling, subsidence, erosion, or other events, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.310(b)(1).

8.2.4.b ——Leak Detection Systems Monitoring

The Permittee shall continue to operate the LDRS and LCRS until leachate is no longer detected, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.310(b)(2).

8.2.4.c ——Landfill VZMS Monitoring

The Permittee shall maintain and monitor the Landfill VZMS sump and wells semi-annually throughout the post-closure period, as specified at Permit Attachment I, Section 3.7.2~~4.1~~, and comply with all other applicable requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264, Subpart F and 264.310(b).

8.2.4.d ——Run-On/Run-Off Control

The Permittee shall maintain the run-on and run-off control system for the Landfill to prevent erosion or other damage to the final cover, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.310(~~g~~b)(5).

8.2.4.e ——Surveyed Benchmarks

The Permittee shall protect and maintain surveyed benchmarks used in complying with the surveying and recordkeeping requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264.309, pursuant to 20.4.1.500 NMAC, incorporating 40 CFR 264.310(~~g~~b)(6).

8.2.5 ——Surface Impoundment VZMS Monitoring

The Permittee shall maintain and monitor the Surface Impoundment VZMS sump and wells semi-annually throughout the post-closure care period, as specified at Permit Attachment I, Section 3.7.2~~4.1~~.

8.2.6 Security

8.2.6.a Security Requirements

The Permittee shall comply with all security requirements during the post-closure care period specified at Permit Attachment P, ~~Section 8.2.1, *Closure and* Post-Closure~~ *Care Plan~~of Permitted Units~~*, Section 8.2.1, Security System, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.117(b).

8.2.6.b ~~—~~Property Use

The Permittee shall not allow any use of the Facility property that will disturb the integrity of the final cover, liners, any components of the containment system, or the function of the Facility's monitoring systems, during the post-closure care period, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.117(c).

8.2.7 ~~—~~Inspections

The Permittee shall inspect the Landfill cover, run-on/run-off controls, the LDRS, LCRS, and VZMS sumps at the Landfill, and the Landfill and Surface Impoundment monitoring wells during the post-closure care period in accordance with the inspection schedules contained at Permit Attachment D~~F~~, *Inspection Procedures*, and Attachment D1~~ Appendix F1~~, *Inspection Schedules and Checklists*.1; and Permit Attachment P, *Post-Closure Care Plan*, Sections 8.1.6, *Landfill*, 8.2.1, *Security Systems*, 8.2.4.3, *Leak Detection System*, and 8.2.5.2, *Inspection and Maintenance*; and in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.117(a)(1).

8.2.8 ~~—~~Reporting

The Permittee shall submit annual reports to the Secretary throughout the post-closure care period which summarize inspection and maintenance activities and monitoring results, in compliance with 20.4.1.900 NMAC, incorporating 40 CFR ~~264.~~270.31~~2~~(b)~~(2)~~.

8.2.9 ~~—~~Certification Of Post-Closure Care Completion

No later than 60 calendar days after completion of the established post-closure care period for the Facility or any unit undergoing post-closure care, the Permittee shall submit to the Secretary, by registered mail, hand delivery, or special delivery service, a certification that the post-closure care for the

hazardous waste unit was performed in accordance with the specifications contained in the approved Post-Closure Plan. The certification shall be signed by the Permittee and an independent, professional engineer registered in New Mexico. Documentation supporting the engineer's certification shall be furnished to the Secretary upon request, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.120, until the Secretary releases the Permittee from the financial assurance requirements for post-closure care contained at Permit Condition ~~9.9~~8.3 in accordance with 20.4.1.500 NMAC, incorporating 40 CFR 264.145(i).

8.2.10 Verification of Post-Closure Care Completion

The Secretary will, within 60 calendar days of receipt of the certification of post-closure care completion from the Permittee, verify through a site visit and examination of documents that post-closure care was completed as required under the approved Post-Closure Care Plan, in accordance with 20.4.1.900 NMAC, incorporating 40 CFR 270.32(b)(2).

8.2.11 Post-Closure Care Notices

8.2.11.a Hazardous Waste Records

No later than 60 days after certification of closure of each hazardous waste disposal unit, the Permittee must submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Secretary a record of the type, location, and quantity of hazardous wastes disposed of within each cell or other disposal unit of the facility, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.119(a).

8.2.11.b Notation on Property Deed

8.2.11.b.i Record of Notation

Within 60 days of certification of closure of the first hazardous waste disposal unit and within 60 days of certification of closure of the last hazardous waste disposal unit, the Permittee must record, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.119(b)(1), a notation on the deed to the facility property, or on some other instrument which is normally examined during title search, that will in perpetuity notify any potential purchaser of the property that:

- the land has been used to manage hazardous wastes; and

- its use is restricted, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264 Subpart G regulations; and

- the survey plat and record of the type, location, and quantity of hazardous wastes disposed of within each cell or other hazardous waste disposal unit of the facility required in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.116 and 264.119(a), have been filed with the local zoning authority or the authority with jurisdiction over local land use and with the Secretary.

8.2.11.b.ii Certification of Deed Notification

Within 60 days of certification of closure of the first hazardous waste disposal unit and within 60 days of certification of closure of the last hazardous waste disposal unit, the Permittee must submit a certification, signed by the Permittee, that he has recorded the notation specified in Permit Condition 8.2.11.b.i, including a copy of the document in which the notation has been placed, to the Secretary, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.119(b)(2).

8.2.~~10~~12 Removal of Hazardous Materials

If the Permittee or any subsequent owner or operator of the land upon which a hazardous waste disposal unit is located wishes to remove hazardous wastes and hazardous waste residues, the liner, (if any), or contaminated soils, then the Permittee or the subsequent owner or operator shall request a modification to this Permit in compliance with the applicable requirements contained at 20.4.1.900 and 901 NMAC, incorporating 40 CFR Parts 124 and 270.

The Permittee or the subsequent owner or operator, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.119(c), shall demonstrate that the removal of hazardous wastes will satisfy all ~~New Mexico Hazardous Waste Act (~~HWA~~)~~ and ~~Resource Conservation and Recovery Act (~~RCRA~~)~~ requirements for generation and transport of hazardous waste, and that such an action, in accordance with 20.4.1.500 NMAC, incorporating 40 CFR 264.117(c):

- is necessary to the proposed use of the property and will not increase the potential hazard to human health and the environment; or
- is necessary to reduce a threat to human health or the environment.

8.3 FINANCIAL RESPONSIBILITY

8.3.1 Cost Estimates for Closure and Post-Closure Care

8.3.1.a Most Recent Cost Estimates

The Permittee's cost estimates for closure and post-closure care, prepared in accordance with 20.4.1.500 NMAC, incorporating 40 CFR 264.142 and 264.144, respectively, are specified at Permit Attachment O, Attachment~~ppendix~~ O2, *Cost Estimates for Closure*, and Permit Attachment P, Attachment~~ppendix~~ P1, *Cost Estimates for Post-Closure Care*, respectively. When closure or post-closure care cost estimates are adjusted or revised in accordance with Permit Conditions 8.3.1.b and 8.3.1.c, respectively, the Permittee shall submit these adjusted or revised cost estimates to the Secretary by the anniversary date of the establishment of the financial instrument(s) used to comply with Permit Condition 8.3.2.

The latest closure cost estimates will be inserted as replacement pages in Attachment~~ppendix~~ O2. The latest post-closure care cost estimates will be inserted as replacement pages in Attachment~~ppendix~~ P1. [Note: NMED did not provide the latest cost estimates for review.]

8.3.1.b ~~—~~Adjustment for Inflation

The Permittee shall adjust the closure and post-closure care cost estimates for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with Permit Condition 8.3.2, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.142(b) and 264.144(b).

8.3.1.c Cost Estimate Revisions

No later than 30 days after the Secretary has approved a request to modify~~Whenever~~ the Closure Plan or Post-Closure Care Plan~~ is modified~~, the applicable cost estimate shall be revised if the change increases the cost of closure or post-closure care, in

compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.142(c) and 264.144(c), respectively. The revised cost estimate must be adjusted for inflation, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.142(b) and 264.144(b).

8.3.1.d Recordkeeping - Cost Estimates for Closure and Post-Closure Care

The Permittee shall keep at the Facility the latest closure and post-closure care cost estimates during the operating life of the Facility, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.142(d) and 264.144(d).

8.3.2 Financial Assurance for Closure and Post-Closure Care

8.3.2.a Continuous Compliance with Financial Assurance Requirements

The Permittee shall demonstrate continuous compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.143, 264.145, and 264.146 by providing documentation of financial assurance, in at least the amount of the cost estimates required by Permit Condition ~~2.19~~8.3.3, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.151. This demonstration shall be submitted to the Secretary for approval in accordance with Permit Condition 1.10 and in compliance with 20.4.1.500 NMAC, incorporating 264.143(f)(3) and (5) and 264.145(f)(3) and (5).

Changes in financial assurance mechanisms for closure and/or post-closure care must be approved by the Secretary, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.143(f)(6) and 264.145(f)(6).

8.3.3 Liability Coverage

8.3.3.a Sudden Accidental Occurrences

8.3.3.a.i Liability Coverage Requirements for Sudden Accidental Occurrences

The Permittee shall have and maintain liability coverage for sudden accidental occurrences in the amount of one million dollars ($1,000,000) per occurrence, with an annual aggregate of at least two million dollars ($2,000,000), exclusive of legal

defense costs, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.147(a).

8.3.3.a.ii Documentation of Liability Coverage for Sudden Accidental Occurrences

The Permittee shall demonstrate to the Secretary, for approval, continuous compliance with the liability coverage required under Permit Condition 8.3.3.a.i~~i~~, in accordance with Permit Condition 1.10, at least 60 calendar days before receiving hazardous waste for treatment, storage, or disposal at the Facility, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.147(a). This liability coverage shall be effective before the first receipt of hazardous waste at the Facility.

8.3.3.b Nonsudden Accidental Occurrences

8.3.3.b.i Liability Coverage Requirements

The Permittee shall have and maintain liability coverage for nonsudden accidental occurrences in the amount of three million dollars ($3,000,000) per occurrence, with an annual aggregate of at least six million dollars ($6,000,000), exclusive of legal defense costs, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.147(b).

8.3.3.b.ii Documentation of Liability Coverage for Nonsudden Accidental Occurrences

The Permittee shall demonstrate to the Secretary, for approval, continuous compliance with the liability coverage required under Permit Condition 8.3.3.b.i, at least 60 calendar days before receiving hazardous waste for treatment, storage, or disposal at the Facility. The liability coverage shall be in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.147(b).

This liability coverage shall be effective before the first receipt of hazardous waste at the Facility, in accordance with Permit Condition 1.10.

8.3.4 Incapacity of Owners or Operators, Guarantors, or Financial Institutions

8.3.4.a Bankruptcy

The Permittee shall notify the Secretary by certified mail of the commencement of bankruptcy, and the name of any guarantor within

ten days after commencement of the proceeding, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.148(a).

8.3.4.b Other Financial Assurance

The Permittee shall establish other financial assurance or liability coverage within 60 days from the date the trustee or institution issuing the surety bond, letter of credit, or insurance policy declares bankruptcy; otherwise the Permittee shall be deemed to be without the required financial assurance, in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.148(b).

PART 10

CORRECTIVE ACTION FOR REGULATED UNITS

The Permittee shall perform both surficial and subsurface corrective action for regulated units following the requirements of this Permit Part.

HIGHLIGHTS

Introduction

Corrective action (CA) in the context of this Part refers to the permit conditions that ensure an appropriate response in the event of a release of hazardous wastes or constituents (i.e., contaminant) from a regulated unit (RU). Corrective action permit conditions in this Permit Part include: identification of remediation indicator parameters; initial response actions; regulatory notification requirements; release verification procedures; long term response actions; and recording and reporting requirements.

Regulatory Background

Corrective action for RUs ~~is~~ (required by ~~in~~ New Mexico's Hazardous Waste Management Regulations in 20.4.1.500 NMAC, which incorporates 40 CFR Part 264, Subpart F (Releases from Solid Waste Management Units) and 40 CFR 264.100, the Corrective Action Program provision), requires sufficient corrective action to ensure that RUs are in compliance with the ground water protection standard. Ground water monitoring is currently waived at Triassic Park Waste Disposal Facility for reasons specified at Permit Attachment H, *Ground water Monitoring Waiver Request and Approval*. The corrective action requirements for the RUs stipulated in this Permit Part are both a condition of the ground water monitoring waiver approval and the Secretary's "omnibus authority" stipulated in 20.4.1.900 NMAC, incorporating 40 CFR 270.32(b)(2), requiring terms and conditions necessary to protect human health and the environment.

Other Corrective Action Requirements

The corrective action permit conditions of this Permit Part address the significant contaminant releases from RUs that

generally originate subsurface or escape secondary containment and cannot be appropriately managed and ultimately resolved through Permit Attachment C, *Contingency Plan*. However, the Permittee may have to implement requirements of both this Permit Part and the Contingency Plan. Additional corrective action requirements exist in Permit Attachment J, *Response Action Plan,* which addresses released fluid detected between the primary and secondary liners of the RUs. Permit Part 11 (Corrective Action for Solid Waste Management Units (SWMU)~~)~~ would also apply to RUs because a RUs are a subset of SWMUs, but Part 11 is generally redundant with this Permit Part and has additional, more SWMU specific permit conditions.

Regulated Units

Regulated units are defined in 20.4.1.500 NMAC, incorporating 40 CFR 264.90(a)(2), as those land based units that received hazardous wastes after July 26, 1982. At Triassic Park there are two RUs, the Landfill and the Surface Impoundment. The Landfill is a single open pit with a surface area of approximately 47 acres and a waste disposal capacity of approximately 553,200 cubic yards (Permit Application Section 2.5). The Landfill is considered a disposal unit where wastes shall remain indefinitely and shall therefore be subject to CA permit conditions through the Post-Closure Care Period referenced in Permit Part 8~~9~~. The wastes permitted to be disposed in the Landfill include the Resource Conservation and Recovery Act (RCRA) hazardous wastes listed in Permit Part 2, Table 2-1 (Permitted Hazardous Wastes) that meet Land Disposal Restriction (LDR) standards, and Toxic Substances Control Act (TSCA) regulated polychlorinated biphenyl (PCB) wastes at concentrations less than 50 parts per million. Bulk w~~W~~astes containing free liquids are prohibited from being placed in the Landfill.

Potential releases from the Landfill are anticipated to be in the form of leachates escaping through a breach in the liner system. Though no uncontainerized free liquids shall be placed in the Landfill, fluids will enter the Landfill in the form of precipitation which will invariably leach hazardous constituents and accumulate in the Landfill sump. Engineered controls to address the accumulated leachates and to preclude a release outside the Landfill liner system include a Leachate Collection and Removal System (LCRS) and a Leak Detection and Removal System (LDRS).

The Surface Impoundment consists of two cells with a combined approximate capacity of 5.2 million gallons and a surface area of approximately 78,600 square feet. The Surface Impoundments shall treat the wastes through evaporation to reduce their volume. The depth of the Surface Impoundment is approximately 12 feet maximum with a bottom slope of approximately two percent towards a centrally located leachate sump. Hazardous wastes permitted to be treated in the Surface Impoundment include the Resource Conservation and Recovery Act (RCRA) hazardous wastes listed in Permit Part 2, Table 2-1 (Permitted Hazardous Wastes) provided that the LDR standards have been met prior to placement. The Surface Impoundment is a treatment unit that is not expected to leave wastes in-place after closure and will therefore not be subject to CA permit conditions after the Closure Period if the closure performance standard referenced in Permit Part 8 is attained.

Potential releases from the Surface Impoundment are anticipated to be in the form of leachates escaping through a breach in the liner system. Fluids that escape through the primary liner shall be addressed by the Leak Detection and Removal System (LDRS).

Release Detection

The principal method of detecting a release of waste from the RUs is the Vadose Zone Monitoring System (VZMS). The VZMS operates in lieu of a ground water monitoring system as explained in the Permit Attachment H, *Ground Water Monitoring Waiver Request and Approval*.

The VZMS consists of monitoring sumps beneath both the Landfill and the Surface Impoundment and a series of monitoring wells both immediately adjacent to and down gradient of the RUs. The sumps are intended to be the primary release detection points. The wells are intended to monitor fluid accumulation at the hydraulic boundary formed by the stratigraphic contact of the Upper and Lower Dockum lithologic units. Permit conditions associated with the VZMS are described in the Permit Part 7 (Vadose Zone Monitoring Part). A detection of wastes in the VZMS shall be presumed to have originated from the RU associated with the monitoring location until a thorough investigation demonstrates to the satisfaction of Secretary that another source is responsible. Therefore, all detections of wastes in the VZMS shall be addressed in this Permit Part.

Other releases to the environment, including those discovered during any field investigation or environmental audits, or unplanned surface spills occurring outside containment areas and initially addressed through Permit Attachment C, *Contingency Plan*, that cannot be entirely remediated to appropriate action levels within 24 hours, shall be addressed in accordance with the permit conditions of this Permit Part.

10.1 VADOSE ZONE MONITORING SYSTEM

Vadose zone monitoring is the principal release detection mechanism for the Regulated Units and shall therefore be the mechanism most apt to initiate the corrective action requirements of this Permit Part. Due to its importance, vadose zone monitoring is addressed in this Permit in a separate Permit Part, the Vadose Zone Monitoring Part (Permit Part 7). The Permittee shall install, maintain and operate the VZMS to comply with the requirements specified at Permit Part 7.

10.2 ACTION LEVELS

Action levels shall be used by the Permittee to determine the need for either the initiation or the continuance of corrective action under this Permit Part. Action levels are the particular concentrations of indicator parameters indicative of a release from a waste management unit. Indicator parameters are particular chemicals or other physical parameters specific to the RU and associated environmental media. Upon attainment or exceedance of an action level, the Permittee shall initiate the immediate response actions specified at Permit Condition 10.3.

10.2.1 Vadose Zone Fluid Action Levels

Vadose zone fluid action levels shall be used by the Permittee to determine whether a release has occurred from a RU to a VZMS sump or well. Vadose zone fluids shall be analyzed for indicator parameters consisting of leachate chemical constituents and non-leachate major ion and metals baseline chemical concentrations. Each of these indicator parameters has an action level. The methods for establishing both indicator parameters and action levels for vadose zone fluids are specified in Permit Condition 7.3~~5~~.

Any detection of an anthropogenic hazardous constituent in a vadose zone fluid~~s~~ will be considered to be indicative of a release. Therefore, the Vadose zone fluid action levels for leachate constituents shall be the analytical method detection limits specified in Permit Condition 7.5.4. Action levels for non-leachates shall be significant changes in the baseline major ion ratios and baseline metals concentrations. Significance shall be determined when necessary using the procedures specified in Permit Attachment Q, *Statistics*.

10.2.2 Soil Action Levels

Soil action levels shall be used by the Permittee in conjunction with vadose zone monitoring to determine whether a release has occurred to soils. Soil action levels are the hazardous constituent concentrations that exceed background concentrations by a statistically significant amount. Background soil concentrations shall be established in accordance with Permit Attachment O, *Closure Plan*, Section 8.3, *Closure Performance Standard*. An appropriate statistical procedure shall, if needed, be chosen from Permit Attachment Q, *Statistics*.

The soil sampling constituents that will be analyzed to determine whether they exceed soil action levels (i.e., indicator parameters) shall be those constituents representative of the wastes managed at an associated waste management unit. The Secretary may require that the set of indicator parameters for a particular investigation be the Appendix VIII list of hazardous constituents specified at 20.4.1.200 NMAC, incorporating 40 CFR 261, or other constituents considered by the Secretary to threaten human health and the environment.

10.2.3 Ground Water Action Levels

Ground water action levels are the hazardous constituent concentrations that exceed naturally occurring background concentrations. The requirement to establish a ground water monitoring system has been conditionally waived by the Secretary for the reasons provided in Attachment H, *Ground water Monitoring Waiver Request and Approval*. Ground water background concentrations (i.e., action levels) shall be established by the Permittee if a ground water monitoring system is required as specified at Permit Condition 10.3.7, and in accordance with Permit Condition 10.11.3.

10.3 IMMEDIATE RESPONSE ACTIONS UPON DETERMINATION OF A RELEASE

When the Permittee identifies evidence of a release (i.e., exceedance of an action level) pursuant to Permit Conditions 10.2.1~~a~~, 10.2.2, ~~b~~ and/or 10.2.3~~c~~, the permittee shall comply with the following requirements.

10.3.1 Notification

The Permittee shall notify the Secretary within 24 hours and provide the Secretary a written report within seven (7) calendar days in accordance with the reporting requirements of Permit Condition 10.7.1.

10.3.2 Verification Sampling

For any substances found in an original analysis pursuant to Permit Condition 10.3, the Permittee shall re-sample and repeat the analysis using the same methodology used for the original analysis. If gross contamination exists, the Permittee shall immediately initiate the Response Actions of Permit Condition 10.3.3 and proceed with verification sampling. The Permittee shall furthermore comply with the following requirements:~~.~~

- The results of the verification sampling shall be reported to the Secretary as soon as possible, but in no case shall the results be reported to the Secretary more than 15 calendar days after the Permittee's receipt of the original results. A written narrative describing the verification sampling shall be provided to the Secretary as prescribed in Permit Condition 10.7.5.

- If the results of the second analysis confirm the original analysis, the verified compounds, as well as all other Appendix IX compounds detected pursuant to Permit Condition 10.3.5, shall form the basis for further corrective action pursuant to the requirements included in this Permit Part.

- If the results of the second analysis do not confirm the original analysis, a third sampling and analysis of the impacted media shall be performed. The permittee shall provide the Secretary opportunity to be present during the third sampling event so that NMED may obtain split samples

by providing advance notice as soon as the second analysis results are received.

- If the results of the third analysis do not confirm the existence of contamination as demonstrated by the original analysis, the Secretary will assume that the original analysis was in error and the Permittee shall return to the original monitoring process and schedule.

- If the results of the third analysis do confirm the existence of a release as demonstrated by the original analysis, the verified compounds, as well as all other Appendix IX compounds detected pursuant to Permit Condition 10.3.5, shall form the basis for further corrective action pursuant to the requirements included in this Permit Part.

10.3.3 Response Actions

The Permittee shall immediately, but no later than 24 hours after a release is first detected and before verification sampling has been completed, initiate the following response actions:

- Determine whether the contamination can be attributed to some operational disturbance such as an equipment or power failure;

- Verify that the VZMS is working as designed;

- Verify that the associated Leak Detection System is working as designed;

- Evaluate the need to increase the pumping rate on the Leachate Collection and Leak Detection Systems pumps;

- For the Landfill only: remove all standing water, if any, from the surface of the Landfill;

- Repair any damage to exposed portions of the liner;

- Investigate alternative sources of liquids, leachates or contamination;

- (Landfill only) Review the analysis of the contamination and compare it to the Landfill Operating Record for the previous five (5) years and

attempt to match fingerprint or indicator parameters, generator analyses and waste placement records to determine the source of the leaks.

10.3.4 Independent Assessment

The Permittee shall have a third-party assessment of the immediate response actions conducted by an independent New Mexico registered professional engineer, or other qualified professional as determined by the Secretary. Should the verification sampling conclude that a release has occurred, the assessment shall include a determination of whether waste receipt should be temporarily discontinued, or if waste should be removed for liner inspection, repair or controls.

A written summary of the assessment shall be presented to the Secretary within forty-five (45) days of the initiation of the immediate response action.

10.3.5 40 CFR Part 264 Appendix IX Sampling

Upon verification of a release from a RU as specified at Permit Condition 10.3.2, but no later than 30 days after the verification, the Permittee shall analyze the fluids in all VZMS wells for concentrations of the Appendix IX constituents identified in 20.4.1.500 NMAC, incorporating 40 CFR 264.

10.3.6 Submittal of Regulated Unit Investigation Work Plan

The Permittee shall, within 45 calendar days of the verification of a release from a RU as specified at Permit Condition 10.3.2, submit to the Secretary a Regulated Unit Investigation Work Plan in accordance with Permit Condition 10.5.

10.3.7 Submittal of Ground Water Monitoring Work Plan

The Permittee shall, within 90 calendar days of the verification of a release as specified at Permit Condition 10.3.2, submit to the Secretary an application for a permit modification to establish a ground water monitoring program meeting the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264.97, and the detection monitoring requirements of 40 CFR 264.98, as specified at Permit Condition 10.11.

10.3.8 Monthly Progress Reports

The Permittee shall, upon verification of a release, initiate the submittal of monthly Corrective Action Progress Reports as specified at Permit Condition 10.7.4.

10.3.9 Record Keeping

The Permittee shall document all immediate response actions according to Permit Condition 10.9.

10.4 FACILITY WIDE CORRECTIVE ACTION WORK PLAN

The purpose of the Facility Wide Corrective Action Work Plan (FWCAWP) is to have established investigation procedures in place where possible so as not to in any way hamper or delay the corrective action process. Numerous corrective action requirements in this permit have short response times. The FWCAWP shall contain the generic aspects of a RCRA Facility Investigation Work Plan.

The Permittee shall submit a FWCAWP to the Secretary within ninety (90) calendar days of the effective date of this Permit. The FWCAWP may reference the Permit Application or the Permit only. It is anticipated that the FWCAWP shall be referenced by future investigation work plans.

The FWCAWP shall include the following information as clarified in Permit Attachment S(Note: Permit Attachment S was not available to help determine whether the cited reference is correct.):

- Corrective Action Project Management Plan
- Corrective Action Data Collection Quality Assurance Plan
- Corrective Action Data Management Plan
- Site Health and Safety Plan
- Community Relations Plan

The Permittee shall submit to the Secretary all appropriate modifications to the FWCAWP on an annual basis in the form a

permit modification request, within ninety (90) calendar days after the anniversary date of this Permit.

10.5 REGULATED UNIT INVESTIGATION

10.5.1 Regulated Unit Investigation Work Plan

The Permittee shall submit an Investigation Work Plan to the Secretary within 45 days of determining that a release has occurred from a RU as specified at Permit Condition 10.3.6. The primary purpose of the Investigation Work Plan shall be to specify the procedure for determining the nature, rate and extent of all released constituents and to determine the source location. The Investigation Work Plan shall also consider the remediation alternative selection process specified at Permit Attachment U, *Remedy Identification - Scope of Work.* (Note: Permit Attachment U was not available to help determine whether the cited reference is correct.) The Regulated Unit Investigation Work Plan shall be considered a RCRA Facility Investigation Work Plan for purposes of the New Mexico Hazardous Waste Fee regulations.

The Investigation Work Plan shall include the items included in the following three sources.

- The Investigation Work Plan shall describe the objectives of the investigation and the overall technical and analytical approach to completing all actions necessary to characterize the source, movement and concentration of released hazardous wastes or hazardous constituents from the RU. The Investigation Work Plan shall detail all proposed activities and procedures to be conducted at the facility in relation to the investigation, the schedule for implementing and completing such investigations, the qualifications for personnel performing or directing the investigations, including contractors, and the overall management of the investigation. The Scope of Work for an investigation is specified at Permit Attachment T. (Note: Permit Attachment T was not available to help determine whether the cited reference is correct.)

- The Investigation Work Plan shall appropriately reference the following Sections of Permit Attachment S, *Facility Wide Corrective Action Work Plan* (Note: Permit Attachment S was not available to help determine whether the cited reference is correct.):

  - Corrective Action Project Management Plan;
  - the Corrective Action Data Collection Quality Assurance Plan;
  - the Corrective Action Data Management Plan;
  - the Site Health and Safety Plan;
  - the Community Relations Plan.

- Development of the Investigation Work Plan and reporting of the associated data shall be consistent with the following EPA guidance documents or the equivalents or updates thereof:

- "RCRA Facility Investigation Guidance Document," EPA 530/SW-89-031, Volumes I-IV, May 1989;

- "RCRA Ground-Water Monitoring: Draft Technical Guidance," EPA /530-R-93-001, November 1992;

- "RCRA Ground-Water Monitoring Technical Enforcement Guidance Document," OSWER 9950.1, September 1986;

- "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods," SW-846, 3rd Edition, 1996; and,

- "RCRA Corrective Action Plan," Final, OSWER Directive 9902.3-2A, May 1994.

- "Handbook of Suggested Practices for the Design and Installation of Ground-Water Monitoring Wells," EPA 600/4-89/034

After the Permittee submits the Investigation Work Plan, the Secretary shall approve, disapprove, or modify and approve the Work Plan in writing. In the event of disapproval (in whole or in part) of the Investigation Work Plan, the Secretary shall specify the deficiencies in writing. The Permittee shall correct these deficiencies and submit a modified Work Plan within 30

calendar days of such written notification to the Secretary for review. If the Permittee takes exception to all or part of the disapproval, the Permittee shall submit a written statement of the grounds for the exception within fifteen (15) calendar days of the receipt of the disapproval. The time periods set forth in this paragraph may be extended for good cause upon the Permittee's written request and the Secretary's written approval.

10.5.2 Regulated Unit Investigation Implementation

Upon receipt of written approval from the Secretary for the Investigation Work Plan, the Permittee shall implement the investigation according to the prescribed work and schedules in the Work Plan, and in accordance with the following requirements:

- The Permittee shall notify the Secretary in writing at least fifteen (15) calendar days prior to any field sampling, field testing, or field monitoring required by this permit. The purpose of the notice is to provide Agency personnel the opportunity to observe investigation procedures and/or to split samples.

- Deviations from the approved Investigation Work Plan which are necessary during the implementation of the investigation must be approved by the Secretary and fully documented and described in the progress reports and the Investigation Report.

All approved Investigation Work Plans and associated schedules become incorporated into this Permit pursuant to Permit Condition 1.10.

10.5.3 Regulated Unit Investigation Final Report and Executive Summary

- Within sixty (60) calendar days after the completion of the investigation, the Permittee shall submit a Regulated Unit Investigation Final Report and Executive Summary. The Investigation Final Report shall describe the procedures, methods, and results of all investigations as described in Permit Attachment T. (Note: Permit Attachment T was not available to help determine whether the cited reference is correct.) This

includes a description of the RU and its release, the type and extent of contamination at the RU, sources and migration pathways. The Investigation Final Report shall present all information acquired as a result of the approved Investigation Work Plan. The Investigation Final Report shall contain adequate information to support further corrective action decisions at the facility. The Executive Summary shall summarize the Investigation Final Report. The Regulated Unit Investigation Final Report shall be considered a RCRA Facility Investigation Report for purposes of assessing regulatory review fees under the new Mexico Hazardous Waste Fee Regulations (20.4.2 NMAC).

- After the Permittee submits the Investigation Final Report and Executive Summary, the Secretary shall either approve or disapprove these documents in writing.

If the Secretary approves the Investigation Final Report and Executive Summary, The Permittee shall mail the approved Executive Summary to all individuals on the facility mailing list established pursuant to 20.4.1.1102 NMAC, incorporating 40 CFR 124.10 (c)(1)(ix), within fifteen (15) calendar days of receipt of approval.

If the Secretary determines that the Investigation Report and Executive Summary do not fully meet the objectives stated in Permit Attachment T, (Note: Permit Attachment T was not available to help determine whether the cited reference is correct.) the Secretary may disapprove the Investigation Report and/or Executive Summary. If the Secretary disapproves the Report, the Secretary shall notify the Permittee in writing of the Report's deficiencies and require submittal of a revised Investigation Report and Executive Summary within thirty (30) calendar days of such notification, or the Secretary shall modify the Investigation Report before approval. Once approved, the Summary shall be mailed to all individuals on the facility mailing list as specified above, unless the Permittee takes exception to any portion of the Investigation Report approved by the Secretary. The time periods set forth in this paragraph may be extended for good cause upon the Permittee's written request and the Secretary's written approval.

10.6 REMEDY IDENTIFICATION

10.6.1 Remedy Identification Work Plan

The Permittee shall submit a draft Remedy Identification (RI) Work Plan to the Secretary within ninety (90) days of determining that a release has occurred from a RU as specified at Permit Condition 10.3~~1~~.2. The purpose of the draft RI Work Plan is to identify and evaluate all potential remedies that shall attain the corrective action objective of removing or remediating all contaminated environmental media to below the appropriate action levels specified in Permit Condition 10.2. The purpose of the early submittal requirement is to ensure that remedy consideration is occurring concurrent with the investigation. The Permittee shall submit a draft final RI Work Plan within 45 calendar days of the Secretary's approval of the Investigation Final Report and Summary. The complete Scope of Work for a RI Work Plan is specified at Permit Attachment U. (Note: Permit Attachment U was not available to help determine whether the cited reference is correct.) The Remedy Identification Work Plan shall be considered a Corrective Measures Work Plan for purposes of the New Mexico Hazardous Waste Fee regulations (20.4.2 NMAC).

The Remedy Identification Work Plan shall provide the following information:

- A description of the current conditions;
- A definition of the overall objectives of the study;
- Specific plans for evaluating remedies to ensure compliance with corrective measure standards;
- Schedules for conducting the study; and
- The proposed format for the presentation of information.

After the Permittee submits the RI Work Plan, the Secretary shall either approve, disapprove or modify and approve the Work Plan in writing. If the Secretary approves the RI Work Plan, the Permittee shall implement the Plan as specified at Permit Condition 10.6.2.

In the event of disapproval (in whole or in part) of the RI Work Plan, the Secretary shall specify deficiencies in writing. The Permittee shall modify the Plan to correct the deficiencies within the time frame specified at the notice of deficiency. The modified RI Work Plan shall be submitted to the Secretary for review. If the Permittee takes exception to the disapproval, decision, or directive, the Permittee shall submit a written statement of the grounds for the exception. The time periods set forth in this paragraph may be extended for good cause upon the Permittee's written request and the Secretary's written approval.

10.6.2 Remedy Identification Implementation

No later than fifteen (15) calendar days after the Permittee receives the written approval from the Secretary for the RI Work Plan, the Permittee shall implement the RI Work Plan according to the schedules in the approved Work Plan. All approved plans and associated schedules shall become incorporated into this Permit as specified at Permit Condition 1.10.

10.6.3 Remedy Identification Final Report And Executive Summary

10.6.3.a Submittal of RI Final Report

Within sixty (60) calendar days after the completion of the RI, the Permittee shall submit a RI Final Report and Executive Summary to the Secretary. The Executive Summary shall summarize the Report. The RI Final Report shall discuss the results of the investigations of each corrective measure alternative studied and of any bench-scale or pilot test conducted. It shall include an evaluation of each remedial alternative. The RI Final Report shall present all information gathered during the RI, and shall contain adequate information to support the corrective measure selection process. The Remedy Identification Final Report shall be considered a Corrective Measures Report for purposes of the New Mexico Hazardous Waste Fee regulations (20.4.2 NMAC).

In the RI Final Report, the Permittee shall propose a corrective action program that shall attain the following:

- compliance with corrective action objectives for hazardous constituents in each medium, as established in Permit Condition 10.1.2;

- control of the sources of releases;
- meet acceptable waste management requirements; and
- protect human health and the environment.

10.6.3.b Approval of RI Final Report

After the Permittee submits the RI Final Report and Executive Summary, the Secretary will either approve or disapprove them in writing. If the Secretary approves the RI Report and Executive Summary, the Permittee shall mail the approved Executive Summary to all individuals on the facility mailing list established pursuant to 20.4.1.1102 NMAC, incorporating 40 CFR 124.10 (c)(1)(ix), within fifteen (15) calendar days of receipt of approval.

If the Secretary determines the RI Final Report and Executive Summary do not fully meet the objectives stated in Permit Condition 10.5.1 and Permit Attachment U, (Note: Permit Attachment U was not available to help determine whether the cited reference is correct.) the Secretary may disapprove the RI Final Report and Executive Summary. If the Secretary disapproves the Report, the Secretary shall notify the Permittee in writing of the Report's deficiencies and require submittal of a revised RI Final Report and Executive Summary within thirty (30) calendar days of such notification.

Once approved, the Executive Summary shall be mailed to all the individuals on the facility mailing list as specified above. The time periods set forth in this paragraph may be extended for good cause upon the Permittee's written request and the Secretary's written approval.

10.6.3.c RI Final Report - Additional Remedies

Based on preliminary results and the RI Final Report, the Secretary may require the Permittee to evaluate additional remedies or particular elements of one or more proposed remedies.

10.6.4 Remedy Selection and Implementation

Within fifteen (15) calendar days after approval of the RI Report and Summary, the Secretary shall initiate modification of the

Permit as specified at Permit Condition 10.10, or corrective measure selection, based on the approved RI Report. The resultant modified Permit shall include schedules for corrective measures implementation.

10.6.5 Financial Assurance

The Permittee shall submit to the Secretary evidence of financial assurance for the cost of completing the corrective actions identified in the approved Remedy Identification Final Report pursuant to 20.4.1.500 NMAC, incorporating 40 CFR 264.101(b) and (c). Proof of financial assurance Report shall be submitted to the Secretary within 90 calendar days of completion of the permit modification incorporating the approved remedy. The corrective action cost considerations are provided in Permit Attachment U, *Remedy Identification - Scope of Work*, Task II(d)(2). (Note: Permit Attachment U was not available to help determine whether the cited reference is correct.)

10.7 SUBMISSION REQUIREMENTS

10.7.1 Determination of Contamination

If the Permittee has detected the existence of contamination above the action levels specified in Permit Condition 10.2, the Permittee shall notify the Secretary within 24 hours and provide the Secretary a written report within seven (7) calendar days, indicating what parameters or constituents have been detected.

10.7.2 Immediate Response Action Report

The Permittee shall submit a written assessment of the immediate response actions required under Permit Condition 10.3 to the Secretary within 15~~4~~ calendar days of the Permittee's verification of the contamination as specified in Permit Condition 10.3.2. The Report shall contain at a minimum the amount and nature of the contamination; available information on size, location, and cause of the leak; and any immediate and short-term actions to be taken.

10.7.3 Response Action Effectiveness Report

The Permittee shall submit a follow up Response Action Effectiveness Report to the Secretary within 30 calendar days of

the Permittee's awareness of the release. The Report shall describe how effective the response actions have been stopping the migration of hazardous wastes or constituents out of the associated regulated unit. This Report shall also describe the verification sampling required in Permit Condition 10.3.2.

10.7.4 Corrective Action Progress Report

The Permittee shall submit monthly Corrective Action Progress Reports to the Secretary throughout the period for which corrective action is required in this Permit Part. The monthly reports shall be submitted by the 15th day of the month following the month addressed in the Report.

10.7.5 Verification Sampling Report

The Permittee shall submit a Verification Sampling Report fully describing the sampling and analysis procedures required by Permit Condition 10.3.2. All laboratory analytical and quality assurance documentation shall be included.

10.7.6 Immediate Response Action 3rd Party Assessment

The Permittee shall ensure that a written summary of the third-party assessment of the immediate response action required under 10.3.4 is submitted to the Secretary within forty five (45) calendar days of the initiation of the immediate response action.

10.7.7 Field Sampling Notification

The Permittee shall notify the Secretary in writing at least ten (10) calendar days prior to any field sampling, field testing, or field monitoring required by this permit as required by permit Condition 10.5.2.

10.7.8 Facility Wide Corrective Action Work Plan

The permittee shall submit a Facility Wide Corrective Action Work Plan to the Secretary within 90 calendar days of the effective date of this Permit in accordance with Permit Condition 10.4. Furthermore, the Permittee shall submit to the Secretary all appropriate modifications to the Work Plan on an annual basis, within 90 calendar days after the anniversary date of this Permit.

10.7.9 Regulated Unit Investigation Work Plan

The Permittee shall submit a Regulated Unit Investigation Work Plan to the Secretary within 45 calendar days of determining that a release has occurred from a RU as specified at Permit Condition 10.3.6~~g~~.

10.7.10 Regulated Unit Investigation Final Report and Summary

The Permittee shall submit a Regulated Unit Investigation Final Report and Summary within 60 calendar days after the completion of the investigation as specified at Permit Condition 10.5.3.

10.7.11 Remedy Identification Work Plan

The Permittee shall submit a draft Remedy Identification (RI) Work Plan to the Secretary within 90 calendar days of determining that a release has occurred from a RU as specified at Permit Condition 10.6.1.

10.7.12 Remedy Identification Final Report and Executive Summary

The Permittee shall submit a Remedy Identification Final Report and Executive Summary to the Secretary Within 60 calendar days after the completion of the RI as specified at Permit Condition 10.6.3.

10.7.13 Ground-Water Monitoring Work Plan

The Permittee shall, within 90 calendar days of the determination of a release, submit to the Secretary an application for a permit modification to establish a ground water monitoring program as specified at Permit Condition 10.3.7~~h~~.

10.7.14 Permit Modification

The Permittee shall, within 90 calendar days of the determination of the need to modify the Corrective Action Permit Part, submit an application for a permit modification to make any appropriate changes in accordance with Permit Condition 10.10.

10.7.15 Plugging and Abandonment Work Plan

The Permittee shall submit a work plan to plug and abandon any and all wells that can no longer serve the function for which they were intended within 90 days of determining that a well can no longer serve its intended function in accordance with Permit Condition 10.12~~6.1~~.

10.7.16 Financial Assurance Report

The Permittee shall submit a Financial Assurance Report to the Secretary within 90 days of completion of the permit modification referenced in Permit Condition 10.6.5.

10.8 INTERIM MEASURES

If the Secretary determines that a release or potential release of hazardous wastes or constituents poses a threat to human health or ~~and~~ the environment, the Secretary may require interim measures. The Secretary shall determine the specific measure(s) or require the Permittee to propose a measure(s). The Secretary shall notify the Permittee in writing of the requirement to perform interim measures.

The Permittee may propose interim measures at any time. The proposal shall include a written plan and a schedule for implementation. The Secretary shall determine whether a permit modification pursuant to Permit Condition 10.10 is necessary for the interim measure.

The following factors will be considered by the Secretary in determining the need for interim measures and the need for a permit modification:

- Time required to develop and implement a final corrective measure;
- Actual and potential exposure to human and environmental receptors;
- Actual and potential contamination of drinking water supplies and sensitive ecosystems;

- The potential for further degradation of the medium in the absence of interim measures;
- Presence of hazardous wastes in containers that may pose a threat of release;
- Presence and concentration of hazardous wastes, including soil contaminated with hazardous constituents, that have the potential to migrate to ground water or surface water;
- Weather conditions that may affect the current levels of contamination;
- Risk of fire, explosion, or accident; and,
- Other situations that may pose threats to human health or the environment.

10.9 RECORDKEEPING

For a unit undergoing corrective action under this Part, the Permittee shall retain, until completion of the corrective action has been approved by the Secretary, records of all monitoring information and all other pertinent data and information used to prepare the appropriate documents required by this Part.

10.10 REQUEST FOR PERMIT MODIFICATION

If the Permittee or the Secretary determines that the Permit Part *Corrective Action for Regulated Units* no longer satisfies the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264 Subpart F), the Permittee shall, within 90 calendar days of the determination, submit an application for a permit modification to make any appropriate changes to the Permit Part to meet the requirements of 20.4.1.500 NMAC and 20.4.1.900 NMAC, incorporating 40 CFR 264 Subpart F and 40 CFR 270.42.

10.11 GROUND WATER MONITORING

The requirement to establish a ground water monitoring system has been waived by the Secretary for the reasons provided in Permit

Attachment H, *Groundwater Monitoring Waiver Request and Approval*. The ground water monitoring waiver will be revoked when a release is verified in the Vadose Zone Monitoring System in accordance with Permit Condition 10.2.1.

The Permittee shall initiate compliance with 20.4.1.500 (incorporating 40 CFR 264 Subpart F), and construct a ground water monitoring system in accordance with Permit Condition 10.11.1, and initiate a detection monitoring program in accordance with Permit Condition 10.11.2.

10.11.1 Ground Water Monitoring System

The Permittee shall construct a ground water monitoring system to sufficiently monitor for the migration of contaminated fluids to the uppermost aquifer as specified at Permit Condition 10.3.7. Currently the uppermost aquifer is considered to be the permeable sandstone at the base of the Lower Dockum stratigraphic unit described in the Permit Application Section 3.6.2.3. (Note: The Permit Application (Volume I, Section 3.6.2.2 states that the Upper Dockum is the uppermost aquifer.)

The Permittee shall submit a Ground Water Monitoring Work Plan for the Secretary's approval that describes the following items: a detection monitoring program in accordance with Permit Condition 10.10.2, well number and locations, well construction and maintenance plan, and a sampling and analysis plan. The ground water monitoring work plan shall appropriately reference the Facility Wide Corrective Action Work Plan. The ground water monitoring wells shall be constructed to preclude entry of contaminants from overlying formations to the uppermost aquifer.

10.11.2 Detection Monitoring

The Permittee shall initiate a detection monitoring program when required by Permit Condition 10.3.7. Detection monitoring shall be in accordance with 20.4.1.500 NMAC, incorporating 40 CFR 264.98, and the ground water monitoring work plan. The Permittee shall measure the ground water for an exceedance of the action levels specified at Permit Condition 10.2.3.~~1.2.c.~~

10.11.3 Background Ground Water Quality

10.11.3.a Appendix IX

For all substances listed in 20 4.1.500 NMAC, incorporating 40 CFR 264 Appendix IX, the Permittee shall establish background ground water chemical concentrations.

10.11.3.b Sampling of Monitoring Wells

The Permittee shall collect background ground water quality data only from hydraulically upgradient monitoring wells.

10.11.3.c Establishment of Background Water Quality

The Permittee shall establish background ground water quality for each required constituent using data from semi-annual sampling collected over a two-year period for all monitoring points.

10.11.3.d Minimum Sampling Requirement

The Permittee shall collect a minimum of four samples from each monitoring point to determine background ground water quality.

10.11.3.e Submittal of Background Water Quality Data

Within three months of completing the background sampling, the Permittee shall submit the background ground water quality data to the Secretary for approval and incorporation into the Permit.

10.12 WELL PLUGGING AND ABANDONING

The Permittee shall plug and abandon any and all wells that can no longer serve the function for which they were intended. The Permittee shall submit a work plan to plug and abandon a well within 90 days after determining that a well can no longer serve its intended function. Once the work plan is approved by the Secretary, the permittee shall submit a permit modification request to the Secretary in compliance with 20.4.1.900 NMAC, incorporating 40 CFR 270.42. The Permittee shall plug and abandon any monitor well in a manner which eliminates physical hazards, prevents ground water or vadose zone contamination, conserves hydrostatic head, and prevents intermixing of subsurface waters. Where possible, this shall be accomplished by

removing the well casing and pumping expanding cement from the bottom to the top of the well using tremmie pipe. If the casing cannot be removed, the casing shall be ripped or perforated and pressure grouted along its entire length. Filling the boring with bentonite pellets from the bottom to the top is an acceptable alternative to pressure grouting. The Permittee shall submit a report to the Secretary which summarizes and certifies monitoring well plugging and abandonment procedures in accordance with this Permit Part ~~Condition~~ within 90 calendar days from the date a monitoring well is plugged and abandoned.

PART 11

CORRECTIVE ACTION FOR SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN

The Permittee, pursuant to this Permit Part, shall be required to investigate any release of hazardous waste or hazardous constituents at the facility, and to take appropriate corrective action for any such release. The Permittee shall perform corrective action for solid waste management units and areas of concern following the requirements of this Permit Part.

HIGHLIGHTS

Introduction

This Permit Part outlines requirements for corrective action in response to releases of hazardous waste or hazardous constituents that occur at solid waste management units (SWMUs) and/or areas of concern (AOCs). These units are defined at Permit Condition 1.4~~5~~.

Corrective action (CA) in the context of this Permit Part refers to the permit conditions that ensure an appropriate response in the event of a release of hazardous wastes or constituents (i.e., contaminant) from a SWMU or AOC. Corrective action permit conditions in this Permit Part include: notification and assessment requirements for SWMUs and AOCs, notification and assessment requirements for releases from SWMUs and AOCs; investigation requirements; interim measures requirements; remedy selection requirements; and, reporting and permit modification requirements.

Regulatory Background

Corrective action for SWMUs is required in New Mexico's Hazardous Waste Management Regulations in 20.4.1.500 NMAC, incorporating 40 CFR 264.101, which requires that RCRA permits issued after April 8, 1987 shall require corrective action as necessary to protect human health and the environment for all releases of hazardous waste or hazardous constituents from any SWMU at a treatment, storage, or disposal facility, regardless of the time at which the waste was placed in the SWMU.

Section 264.101(c), requires corrective action beyond the facility border where necessary to protect human health and the environment unless the Permittee demonstrates to the satisfaction of the Secretary that, despite the Permittee's best efforts, the Permittee was unable to obtain the necessary permission to undertake such actions.

Corrective action for SWMUs and AOCs may be required under the Secretary's omnibus authority stipulated in 20.4.1.900 NMAC, incorporating 40 CFR 270.32(b)(2), requiring terms and conditions necessary to protect human health and the environment.

Other Corrective Action Requirements

The Corrective action permit conditions of this Permit Part address the significant contaminant releases from SWMUs or AOCs that generally are more extensive than a surface spill and cannot be appropriately managed through the Contingency Plan (Permit Attachment C). The Contingency Plan addresses the responses for smaller volume releases or spills that occur at the ground surface. Permit Part 10 (Corrective Action for Regulated Units) is the primary corrective action Permit Part for both the Landfill and the Surface Impoundment but is significantly redundant with this Permit Part.

11.1 APPLICABILITY

The conditions of this Permit Part apply to:

11.1.1 SWMU and AOCs

Any SWMUs and Areas of Concern (AOCs) listed in Tables 11-3 and 11-4, or SWMUs or AOCs discovered during the course of ground water monitoring, field investigations, environmental audits, implementation of the Contingency Plan, or other means. As used in this Permit Part, the terms "discover", a ~~A~~discovery", or "discovered" refer to the date on which the Permittee either (1) first visually observes evidence of a new SWMU or AOC, (2) first visually observes evidence of a previously unidentified release of hazardous constituents to the environment, or (3) first receives information which suggests the presence of release of hazardous waste or hazardous constituents to the environment.

11.1.2 Contamination that Migrates Beyond the Facility Boundary

The Permittee shall implement corrective actions beyond the Facility boundary where necessary to protect human health and the environment, unless the Permittee demonstrates to the satisfaction of the Secretary that, despite the Permittee's best efforts as determined by the Secretary, the Permittee was unable to obtain the necessary permission to undertake such actions. The Permittee is not relieved of all responsibility to clean up a release that has migrated beyond the Facility boundary where off-site access is denied. On-site measures to address such releases shall be determined on a case-by-case basis. Assurances of financial responsibility for completion of such off-site corrective action shall be required. [20.4.1.500 NMAC (incorporating 40 CFR 264.101(c))].

11.2 NOTIFICATION AND ASSESSMENT REQUIREMENTS FOR NEWLY IDENTIFIED SWMUs AND AOCs

11.2.1 SWMUs and AOCs

The Permittee shall notify the Secretary in writing, within 15 calendar days of discovery, of any suspected new SWMU discovered as described at Permit Condition 11.1.1. The notification shall include, at a minimum, the location of the SWMU and all available information pertaining to the nature of any possible release, (e.g., media affected, hazardous constituents released, magnitude and extent of release). The Secretary may conduct, or require the Permittee to conduct, further assessment in order to determine the status of the suspected SWMU. The Secretary will notify the Permittee in writing of the final determination as to the status of the suspected SWMU. If the Secretary determines that further investigation of a site is required, the Permit shall be modified in accordance with 20.4.1.900 NMAC, incorporating 40 CFR 270.41 to incorporate the new SWMU into Table 11-3.

11.2.2 SWMU Assessment Report

The Permittee shall prepare and submit to the Secretary, within 90 calendar days of the notification required in Permit Condition 11.2.1, a SWMU Assessment Report (SAR) for each SWMU identified

under Permit Condition 11.2. At a minimum, the SAR shall provide the following information:

- ~~§~~ Location of unit(s) on a topographic map of appropriate scale to clearly distinguish the unit(s);
- ~~§~~ Designation of type and function of the unit(s);
- ~~§~~ General dimensions, capacities and structural description of the unit(s); Any available plans/drawings shall be included;
- ~~§~~ Dates that the unit(s) was/is operated;
- ~~§~~ Specification of all wastes that have been managed at/in the unit(s) to the extent available. Any available data on hazardous constituents in the wastes shall be included; and
- ~~§~~ All available information pertaining to any release of hazardous waste or hazardous constituents from such unit(s) (e.g., ground water data, soil analyses, air, and/or surface water data).

11.2.3 Requirement to Proceed

Based on the results of the SAR, the Secretary will determine the need for further investigations at the SWMUs covered in the SAR. If the Secretary determines that such investigations are needed, the Permittee shall prepare a work plan for the investigations in accordance with Permit Condition 11.5.1.a.

11.3 NOTIFICATION REQUIREMENTS FOR NEWLY DISCOVERED RELEASES FROM SWMUs OR AOCs

The Permittee shall notify the Secretary in writing of any newly discovered release(s) of hazardous waste or hazardous constituents discovered during the course of SWMU inspection, ground water monitoring, field investigations, environmental audits, or other means, within 15 calendar days of discovery, including releases for which further investigation under Permit Condition 10.3.3~~xxxxxxxx.~~ is not required.

11.3.1 Requirement to Proceed

If the Secretary determines that further investigation of the SWMUs or AOCs is necessary, the Permittee shall prepare a plan for such investigations as outlined at Permit Condition 11.5.1.b.

11.4 INTERIM MEASURES

11.4.1 IM Work Plan

11.4.1.a Submittal of IM Work Plan

Upon notification by the Secretary, the Permittee shall prepare and submit an Interim Measures (IM) Work Plan for any SWMU or AOC at which the Secretary determines interim measures are necessary. IM are necessary in order to minimize or prevent the further migration of contaminants and limit actual or potential human and environmental exposure to contaminants while long-term corrective action remedies are evaluated and, if necessary, implemented. The IM Work Plan shall be submitted within 30 calendar days of such notification and shall include the elements listed at Permit Condition 11.4.1.b. Such IM may be conducted concurrently with investigations required under the terms of this Permit.

11.4.1.b Initiation of IM Work Plan

The Permittee may initiate IM at a SWMU or AOC by submitting the appropriate notification in accordance with Permit Condition 11.3~~xxxxxxxx~~. The Secretary will process Permittee-initiated IM by either conditionally approving the IM or imposing the requirement for submittal of an IM Work Plan in accordance with Permit Condition 11.4.1.a. A Permittee-initiated IM shall be considered conditionally approved unless the Secretary specifically imposes the requirement for an IM Work Plan within 30 calendar days of receipt of notification of the Permittee-initiated IM. The scope and success of Permittee-initiated IM, conditionally approved in accordance with Permit Condition 11.4.1.b, shall be subject to subsequent review. The Secretary will then either approve or disapprove the Permittee-initiated IM. If the Secretary does not approve the Permittee-initiated IM, the Secretary shall notify the Permittee in writing of the IM~~s~~ deficiencies and shall specify a due date for submittal of an IM Work Plan. A Permittee-initiated IM shall follow the

progress and final reporting requirements of Permit Condition 11.4.3.

11.4.1.c Mitigation of Current or Potential Threat

The IM Work Plan shall ensure that the interim measures are designed to mitigate any current or potential threat(s) to human health or the environment and are consistent with, and integrated into, any long-term solution at the Facility. The IM Work Plan shall include the interim measures objectives; procedures for implementation, including any designs, plans, or specifications; and schedules for implementation.

11.4.1.d Approval of IM Work Plan

The IM Work Plan imposed under Permit Condition 11.4.1.a must be approved by the Secretary, in writing, prior to implementation. The Secretary will specify the start date of the IM Work Plan schedule in the letter approving the IM Work Plan. If the Secretary disapproves the IM Work Plan, the Secretary will either (1) notify the Permittee in writing of the IM Work Plan's deficiencies and specify a due date for submission of a revised IM Work Plan, (2) revise the IM Work Plan and notify the Permittee of the revisions and the start date of the schedule within the revised IM Work Plan, or (3) conditionally approve the IM Work Plan and notify the Permittee of the conditions.

11.4.2 IM Implementation

11.4.2.a Implementation of Approved IM Work Plan

The Permittee shall implement the IM imposed under Permit Condition 11.4.1.a in accordance with the approved IM Work Plan.

11.4.2.b Notification to Secretary

The Permittee shall give notice to the Secretary as soon as possible of any planned changes, reductions or additions to the IM Work Plan imposed under Permit Condition 11.4.1.a or initiated by the Permittee under Permit Condition 11.4.1.b.

11.4.2.c Approval of Corrective Action

Final approval of corrective action required at 20.4.1.500 NMAC, incorporating 40 CFR 264.101, which is achieved through IM, shall

be contained in a Permit modification in accordance with 20.4.1.900 NMAC, incorporating 40 CFR 270.41, and Permit Condition 11.7.

11.4.3 IM Reports

11.4.3.a Time Completion of IM

If the time required for completion of IM is greater than one year, the Permittee shall provide the Secretary with Progress Reports at intervals specified at the approved Work Plan or semi-annually for Permittee-initiated IM. The Progress Reports shall contain the following information at a minimum:

- A description of the portion of the IM completed;
- Summaries of findings;
- Summaries of any deviations from the IM Work Plan during the reporting period;
- Summaries of any problems or potential problems encountered during the reporting period;
- Actions taken to rectify identified problems; and
- Projected work for the next reporting period.

11.4.3.b Submittal of IM Report

The Permittee shall prepare and submit to the Secretary, within 90 calendar days of completion of interim measures conducted in accordance with Permit Condition 11.4.2, an IM Report. The IM Report shall contain the following information at a minimum:

- A description of IM implemented;
- Summaries of results;
- Summaries of all problems encountered and actions taken to rectify the problems;
- Summaries of accomplishments and/or effectiveness of IM; and

Copies of all relevant laboratory, monitoring, and all other

relevant data, etc., in accordance with Permit Condition 2.12~~xxxxxxxx~~.

11.5 RCRA FACILITY INVESTIGATION

11.5.1 RFI Work Plan(s)

11.5.1.a Submittal of RCRA Facility Investigation

The Permittee shall prepare and submit to the Secretary, within 90 calendar days of the effective date of this Permit, a RCRA Facility Investigation (RFI) Work Plan(s) for those units identified at Permit Condition 11.1.1. This Work Plan shall be developed to meet the requirements of Permit Condition 11.5.1.c.

11.5.1.b RFI Work Plan

The Permittee shall prepare and submit to the Secretary, within 90 calendar days of notification by the Secretary, an RFI Work Plan for those units identified under Permit Condition 11.2.3~~4,~~ and Permit Condition 11.3.2. The RFI Work Plan(s) shall be developed to meet the requirements of Permit Condition 11.5.1.c.

11.5.1.c Requirements RFI Work Plan

The RFI Work Plan(s) shall meet the requirements of a Regulated Unit Work Plan as specified at Appendix X.1.2. (Note: Appendix X.1.2 was not available to help determine whether the cited reference is correct.) The RFI Work Plan(s) shall include schedules of implementation and completion of specific actions necessary to determine the nature and extent of contamination and the potential pathways of contaminant releases to the air, soil, surface water, and ground water. If a unit or a medium/pathway associated with a unit (ground water, surface water, soil, subsurface gas, or air) is not included in the RFI Work Plan(s), the Permittee shall provide sufficient justification and associated documentation that a release is not probable or has already been characterized. Such deletion of a unit, medium, or pathway from the RFI(s) is subject to the approval of the Secretary. The Permittee shall provide sufficient written justification for any omissions or deviations from the minimum requirements of Appendix X.1.2. (Note: Appendix X.1.2 was not available to help determine whether the cited reference is correct.) Such omissions or deviations are subject to the

approval of the Secretary. In addition, the scope of the RFI Work Plan(s) shall include all investigations necessary to ensure compliance with 40 CFR 264.101(c) incorporated at 20.4.1.500 NMAC.

11.5.1.d Approval of RFI Work Plan

The RFI Work Plan(s) must be approved by the Secretary in writing prior to implementation. The Secretary will specify the start date of the RFI Work Plan schedule in the letter approving the RFI Work Plan(s). If the Secretary disapproves the RFI Work Plan(s), the Secretary shall either (1) notify the Permittee in writing of the RFI Work Plan's deficiencies and specify a due date for submission of a revised RFI Work Plan, (2) revise the RFI Work Plan and notify the Permittee of the revisions and the schedule within the revised RFI Work Plan, or (3) conditionally approve the RFI Work Plan and notify the Permittee of the conditions.

11.5.2 RFI Implementation

The Permittee shall implement the RFI(s) in accordance with the approved RFI Work Plan(s) and Appendix X.A.2. (Note: Appendix X.A.2 was not available to help determine whether the cited reference is correct.) The Permittee shall notify the Secretary at least 20 days prior to any sampling activity.

11.5.3 RFI Reports

11.5.3.a Submittal of RFI Draft Report

The Permittee shall prepare, and submit to the Secretary, Draft and Final RFI Report(s) for the investigations conducted pursuant to the RFI Work Plan(s) submitted in accordance with Permit Condition 11.5.1.a. The Draft RFI Report(s) shall be submitted to the Secretary for review in accordance with the schedule in the approved RFI Work Plan(s). The Final RFI Report(s) shall be submitted to the Secretary within 30 calendar days of receipt of the Secretary's final comments on the Draft RFI Report. The RFI Report(s) shall include an analysis and summary of all required investigations of SWMUs and AOCs and their results. The summary shall describe the type and extent of contamination at the Facility, including sources and migration pathways; identify all hazardous constituents present in all media; and describe actual or potential receptors. The RFI Report(s) shall also describe

the extent of contamination (qualitative/quantitative) in relation to action levels specified at Permit Condition 11.1.2. (Note: Part 11 does not specify any SWMU action levels nor any methods/procedures for deriving SWMU action levels. It is not clear from the text what the basis for the action levels might be (i.e. background, RBCA, technology, etc.) This is a policy issue that must be addressed by NMED.)

If the Draft RFI Report is a summary of the initial phase investigatory work, the Report shall include a Work Plan for the final phase investigatory actions required based on the initial findings. Approval of the final phase work plan shall be carried out in accordance with Permit Condition 11.5.1.d. The objective of this task shall be to ensure that the investigation data are sufficient in quality and quantity to describe the nature and extent of contamination, potential threats to human health and/or the environment, and to support a Corrective Measures Study, if necessary.

11.5.3.b Action Levels

The Permittee shall utilize the action levels specified at Permit Condition 11.1.2. Note: Part 11 does not specify any SWMU action levels nor any methods/procedures for deriving SWMU action levels. It is not clear from the text what the basis for the action levels might be (i.e. background, RBCA, technology, etc.) This is a policy issue that must be addressed by NMED.)

11.5.3.c Additional Investigation

The Secretary will review the RFI Report(s) and will notify the Permittee of the need for further investigative action, if necessary, and, if appropriate, inform the Permittee of the need for a Corrective Measures Study to meet the requirements of Permit Condition 11.6~~7~~ and 20.4.1.500 NMAC, incorporating 40 CFR 264.101. The Secretary will notify the Permittee of any No Further Action decision. Any further investigative action required by the Secretary shall be conducted in accordance with the schedule specified by the Secretary and approved in accordance with Permit Condition 11.5.1.d.

11.5.3.d RFI Progress Reports

If the time required to conduct the RFI(s) is greater than 180 calendar days, the Permittee shall provide the Secretary with quarterly RFI Progress Reports, beginning 90 calendar days from the start date specified by the Secretary in the RFI Work Plan approval letter. The Progress Reports shall contain the following information at a minimum:

- A description of the portion of the RFI completed;
- Summaries of findings;
- Summaries of any deviations from the approved RFI Work Plan during the reporting period;
- Summaries of any significant contacts with local community public interest groups, the New Mexico Environment Department, or other Government agencies;
- Summaries of any problems or potential problems encountered during the reporting period;
- Actions taken to rectify problems;
- Changes in relevant personnel;
- Projected work for the next reporting period; and
- Copies of daily reports, inspection reports, data, etc.

11.6 CORRECTIVE MEASURES STUDY

11.6.1 Corrective Measures Study Work Plan

11.6.1.a Submittal of CMS

The Permittee shall prepare and submit a Corrective Measures Study (CMS) Work Plan for those units requiring a CMS within 90 calendar days of notification by the Secretary that a CMS is required. The Permittee may seek approval from the Secretary for concurrent RFI/CMS. The CMS may be performed concurrently with the RFI process if the Secretary determines that sufficient investigative details are available to allow concurrent action.

11.6.1.b CMS Work Plan Alternatives

The scope of the CMS Work Plan shall include the identification of all possible remedial alternatives and the Permittee's recommended alternative that ensures protection of human health and the environment in compliance with 20.4.1.500 NMAC, incorporating 40 CFR 264.101. The Permittee shall when necessary expand the scope of the CMS Work Plan beyond the facility boundary in accordance with Permit Condition 11.1.5.

11.6.1.c CMS Work Plan Remedy Identification

The CMS Work Plan shall meet the requirements of Permit Attachment U, Remedy Identification - Scope of Work, at a minimum. (Note: Attachment U was not available to help determine whether the cited reference is correct.) The Permittee shall provide sufficient justification and/or documentation for any deviation from Permit Attachment U. (Note: Attachment U was not available to help determine whether the cited reference is correct.) Deviation from a portion of Permit Attachment U (Note: Attachment U was not available to help determine whether the cited reference is correct.) is subject to the approval of the Secretary.

11.6.1.d CMS Work Plan Schedule

The CMS Work Plan shall include schedules of implementation and completion of the specific actions necessary to complete a CMS.

11.6.1.e CMS Work Plan Approval

The Secretary will either approve or disapprove in writing the CMS Work Plan. If the Secretary disapproves the CMS Work Plan, the Secretary will either (1) notify the Permittee in writing of the CMS Work Plan's deficiencies and specify a due date for submittal of a revised CMS Work Plan, (2) revise the CMS Work Plan and notify the Permittee of the revisions, or (3) conditionally approve the CMS Work Plan and notify the Permittee of the conditions.

11.6.2 Corrective Measures Study Implementation

The CMS shall be conducted in accordance with the approved CMS Work Plan. The Permittee shall begin to implement the CMS

according to the schedules specified at the CMS Work Plan no later than 15 calendar days after the Permittee has received written approval from the Secretary for the CMS Work Plan.

11.6.3 CMS Report

11.6.3.a Submittal of CMS Report

The Permittee shall prepare and submit to the Secretary a draft and a final CMS Report for the study conducted pursuant to the approved CMS Work Plan and in accordance with Appendix X.A.3. (Note: Appendix X.A.3 was not available to help determine whether the cited reference is correct.) The draft CMS Report shall be submitted to the Secretary in accordance with the schedule in the approved CMS Work Plan. The final CMS Report shall be submitted to the Secretary within 30 days of receipt of the Secretary's final comments on the draft CMS Report. The CMS Report shall summarize any bench-scale or pilot tests conducted. The CMS Report shall include an evaluation of each remedial alternative. The CMS Report shall present all information gathered under the approved CMS Work Plan. The CMS Final Report shall contain adequate information to support the Secretary's decision on the recommended remedy discussed in Permit Condition 11.7.

11.6.3.b CMS Report Approval

If the Secretary determines that the CMS Final Report does not fully satisfy the information requirements specified under Permit Condition 11.6.3.a, the Secretary may disapprove the CMS Final Report. If the Secretary disapproves the CMS Final Report, the Secretary will notify the Permittee in writing of deficiencies in the CMS Final Report and specify a due date for submittal of a revised CMS Final Report. The Secretary will notify the Permittee of any No Further Action decision.

11.6.3.c CMS Report - Evaluation of Additional Remedies

As specified under Permit Condition 11.6.3.b, based on preliminary results and the CMS Final Report, the Secretary may require the Permittee to evaluate additional remedies or particular elements of one or more proposed remedies.

11.7 REMEDY APPROVAL AND PERMIT MODIFICATION

11.7.1 Remedy Selection

The Permittee shall select and recommend to the Secretary a remedy from the remedial alternatives evaluated in the CMS. The remedy shall be based, at a minimum, on protection of human health and the environment, in accordance with specific site conditions and existing regulations. The selected remedy may include any IM implemented to date.

11.7.2 Permit Modification

Pursuant to 20.4.1.900 NMAC, incorporating 40 CFR 270.41, a Permit modification will be initiated by the Secretary after recommendation of a remedy under Permit Condition 11.7.1. This modification shall serve to incorporate the selected final remedy into this permit.

11.7.3 Financial Assurance

The Permittee shall submit to the Secretary evidence of financial responsibility for completing the corrective actions identified in the approved Corrective Measures Study Final Report pursuant to 20.4.1.500 NMAC, incorporating 40 CFR 264.101(b) and (c). A cost estimate shall be provided to the Secretary for approval prior to 90 days after finalization of the permit modification incorporating the selected final remedy. The corrective action cost considerations are provided in Permit Attachment U, Remedy Identification- Scope of Work, X.A.3, Task II(d)(2), Cost Estimate. (Note: Attachment U was not available to help determine whether the cited reference is correct.) A Financial Assurance Report shall be submitted to the Secretary within 60 days of the Secretary's approval of the cost estimate.

11.8 MODIFICATION OF THE CORRECTIVE ACTION SCHEDULE OF COMPLIANCE

11.8.1 Corrective Action Compliance Schedule

If at any time the Secretary determines that modification of Table 11.1, Corrective Action Compliance Schedule, is necessary, the Secretary may initiate a modification to Table 11.1.

11.8.2 Modification to the Compliance Schedule

Modifications that are initiated and finalized by the Secretary will be in accordance with the applicable provisions of 20.4.1.900 NMAC, incorporating 40 CFR Part 270. The Permittee may also request a Permit modification in accordance with 20.4.1.900 NMAC, incorporating 40 CFR Part 270, to change Table 11.2.

11.9 WORK PLAN AND REPORT REQUIREMENTS

11.9.1 Approval of Work Plans and Schedules

All work plans and schedules shall be subject to approval by the Secretary prior to implementation to assure that such work plans and schedules are consistent with the requirements of this Permit and with applicable regulations. The Permittee shall revise all submittals and schedules as specified by the Secretary. Upon approval, the Permittee shall implement all work plans and schedules as written.

11.9.2 Submittal of Work Plans

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

11.9.3 Submittal of Amended Work Plans

If the Permittee at any time determines that the SAR information required under Permit Condition 11.2~~3~~ or RFI Work Plan required under Permit Condition 11.5.1 no longer satisfy the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264.101, or this Permit for releases of hazardous waste or hazardous constituents from SWMUs and/or AOCs, the Permittee shall submit an amended Work Plan(s) to the Secretary within 90 calendar days of such determination.

11.9.4 Written Submittal

Two (2) copies of all reports and work plans shall be provided by the Permittee to the Secretary in accordance with Permit ~~Condition~~Part 2.12~~8~~.

11.10 APPROVAL/DISAPPROVAL OF SUBMITTALS

11.10.1 Secretary Approval

The Secretary will review all submittals, e.g., the work plans, reports, schedules, and other documents which require the Secretary's approval, in accordance with the conditions of this Permit. The Secretary will notify the Permittee in writing of any submittal that is disapproved, and the basis therefore.

11.11 RECORDKEEPING

For a SWMU undergoing corrective action under this Part, the Permittee shall retain, until completion of the corrective action has been approved by the Secretary, records of all monitoring information and all other pertinent data and information used to prepare the appropriate documents required by this Part.

TABLE 11.1

CORRECTIVE ACTION COMPLIANCE SCHEDULE

~~(~~Corrective action is currently not required as of (insert date of permit issuance)

TABLE 11.2

SUBMITTAL REQUIREMENTS

SCHEDULE OF COMPLIANCE	DUE DATE
Notification of newly identified SWMUs and AOCs Permit ~~Condition~~Parts 11~~0~~.2.1 ~~and 10.2.2~~	Within 15 calendar days of discovery
SWMU Assessment Report Permit ~~Condition~~Part 11.2.2~~3~~	Within 90 calendar days of notification
Notification for newly discovered releases at previously identified SWMUs and AOCs Permit ~~Condition~~Part 11.3.~~1~~	Within 15 calendar days of discovery
RFI Work Plan for SWMU(s) and AOC(s) identified under Permit ~~Condition~~Parts 11.1.1 and 11.5.1.a	Within 90 calendar days from effective date of permit
RFI Work Plan for SWMU(s) and AOC(s) identified under Permit ~~Condition~~Parts 11.2.1~~4~~, 11.3.~~2~~, and 11.5.1.b	Within 90 calendar days after receipt of notification by the Secretary regarding which SWMUs or AOCs require an RFI
Draft RFI Report Permit ~~Condition~~Part 11.5.3.a	In accordance with the approved RFI Work Plan
Final RFI Report Permit ~~Condition~~Part 11.5.3.c	Within 30 calendar days after receipt of the Secretary's final comments on Draft RFI Report
RFI Progress Reports Permit ~~Condition~~Part 11.5.3.d	Quarterly, beginning 90 calendar days from the start date specified by the Secretary*
Interim Measures Work Plan Permit ~~Condition~~Part 11.4.1.a	Within 30 calendar days of notification by the Secretary
Interim Measures Progress Reports Permit ~~Condition~~Part 11.4.3.a	In accordance with the approved Interim Measures Work Plan ** or semi-annually for Permittee-initiated IM
Interim Measures Report Permit ~~Condition~~Part 11.4.3.b	Within 90 calendar days of completion

SCHEDULE OF COMPLIANCE	DUE DATE
CMS Work Plan Permit ~~Condition~~Part 11.6.1.a	Within 90 calendar days of notification by the Secretary that a CMS is required
Implementation of CMS Work Plan Permit ~~Condition~~Part 11.6.2	Within 15 calendar days after receipt of the Secretary's approval of Plan
Draft CMS Report Permit ~~Condition~~Part 11.6.3.a	In accordance with the schedule in the approved CMS Work Plan
Final CMS Report Permit ~~Condition~~Part 11.6.3.a	Within 30 calendar days of the Secretary's final comments on Draft CMS Report
Demonstration of Financial Assurance Permit ~~Condition~~Part 11.7.3	Within 60 days of the Secretary's approval of the cost estimate

The above reports must be signed and certified in accordance with 20.4.1.900 NMAC, incorporating 40 CFR 270.11.

* This applies to Work Plan execution that requires more than 180 calendar days

** This applies to Work Plan execution that requires more than one (1) year.

TABLE 11-3

**LIST OF SOLID WASTE MANAGEMENT UNITS (SWMUS)
AND AREAS OF CONCERN (AOCS) REQUIRING CORRECTIVE ACTION:
SWMU/AOC_Description**

Comments

At the time of permit issuance, no SWMUs or AOCs requiring corrective action had been identified.

TABLE 11.4

LIST OF SOLID WASTE MANAGEMENT UNITS (SWMUS) AND AREAS OF CONCERN (AOCS) CURRENTLY NOT REQUIRING CORRECTIVE ACTION

SWMU/AOC	DESCRIPTION	DATE OF NFA APPROVAL	COMMENTS
SWMU 1	Drum storage unit		~~Operable~~ Operating unit
SWMU 2	Roll-off container/storage unit		Operable unit
SWMU 3a	Liquid waste tank		Operable unit
SWMU 3b	Liquid waste tank		Operable unit
SWMU 3c	Liquid waste tank		Operable unit
SWMU 3d	Liquid waste tank		Operable unit
SWMU 4	Stabilization/treatment unit		Operable unit
SWMU 5	Surface impoundment		Operable unit
SWMU 6	Landfill Phase 1A		Operable unit
SWMU 7	Truck wash facility		
SWMU 8	Maintenance shop		
SWMU 9	Chemical laboratory		
SWMU 10	Stormwater retention basin		
SWMU 11	Future debris encapsulation unit		Proposed/not yet constructed
SWMU 12	Future waste processing area		Proposed/not yet constructed
SWMU 13	Untarping, sampling and weigh scales area		

SWMU/AOC	DESCRIPTION	DATE OF NFA APPROVAL	COMMENTS
SWMU 14	Truck staging area		
AOC 1	Roads		
AOC 2	Clay processing area		
AOC 3	Dust control/clay processing area water basin		

SWMUs 1-14 and AOCs 1-3 were originally identified in a 1995 RCRA Facility Assessment (RFA)