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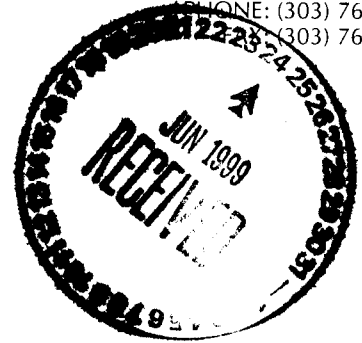
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## TECHLAW INC.

PHONE: (303) 763-7188

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June 23, 1999



Mr. James P. Bearzi  
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; State of New Mexico Environment Department, Santa Fe, New Mexico; General Permit Support Contract; Triassic Park Engineering Design Review; Review of Facility's Response (Section D); Draft Deliverable

Dear Mr. Bearzi:

Enclosed please find the draft deliverable for the above referenced work assignment. This deliverable consists of a technical evaluation of the May 1999 Montgomery Watson Preliminary Draft Response which was reviewed to determine if the proposed revisions adequately address NMED's deficiencies and concerns issued to Gandy Marley on March 11, 1999, in an informational request letter. As previously discussed with NMED, TechLaw was tasked in this assignment to review the engineering design sections for container and tank storage, the surface impoundment, the landfill, and closure as it relates to specific design information.

In general, with the exception of only a few issues addressed in this deliverable, the responses provided by the applicant are adequate. However, care should be taken to ensure that the modified application and the commitments made in the May 1999 responses are adequately addressed in the actual revised application.

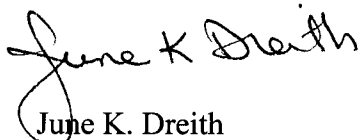
Enclosed is a hard copy and an electronic file of the deliverable on a 3.5 inch diskette in WordPerfect 6.1. In addition, an electronic file has been e-mailed to Ms. Stephanie Kruse of NMED. Please feel free to contact me or Mr. Greg Starkebaum, the senior review engineer, if you have any questions. We both can be reached at 303-763-7188. Mr. Starkebaum will be out of the office from June 23, 1999, until June 29, 1999.



Mr. James P. Bearzi  
June 23, 1999  
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TechLaw is aware of the telephone conference call that has been tentatively scheduled for July 1, 1999, at 2:00 p.m., and Mr. Starkebaum will be involved in the technical discussions as directed by NMED.

Sincerely,



June K. Dreith  
Project Manager

enclosures

cc: S. Kruse  
C. Amindye  
R. Dinwiddie  
W. Jordan  
G. Starkebaum  
D. Romero (file)

**TRIASSIC PARK HAZARDOUS WASTE LANDFILL  
ENGINEERED DESIGN REVIEW SUBMITTAL**

**Submitted by:**

**TechLaw, Inc.  
300 Union Boulevard, Suite 600  
Lakewood, CO 80228**

**Submitted to:**

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

**In response to:**

**Work Assignment No. Y513**

**June 23, 1999**

**REVIEW OF RESPONSE TO  
REQUEST FOR SUPPLEMENTARY INFORMATION  
TRIASSIC PARK WASTE DISPOSAL FACILITY  
TATUM, NEW MEXICO**

The May 1999 Montgomery Watson Preliminary Draft Response was reviewed to determine if the proposed revisions to the November 1998 permit application adequately address the deficiencies and concerns in the March 11, 1999 information request.

**D. PROCESS INFORMATION**

The response is adequate. As noted regarding several of the following responses, the plans in the revised application must be adequately detailed to demonstrate compliance with the applicable regulations. In most cases, the responses indicate that the application will be revised to provide requested information. Where this commitment was not explicitly provided in a response, a reminder comment is provided to emphasize the necessity for the permit application to include adequately detailed, final design plans.

Also, numerous responses indicate only that additional information will be included in the application to address comments. Although these responses are classified as "adequate" in this review, the actual revised application must be considered to determine if the revisions are in fact adequate responses to the comments.

**D-1 Containers: 270.15, 264.170 through 264.178**

The response is adequate.

**D-1a(3) Secondary Containment System Design and Operation: 270.15(a)(1), 264.175(a), 264.175(d)**

The responses are adequate. Stability of the concrete floor and unsupported trench will be verified by weekly inspections.

**D-1a(3)(a) Requirement for the Base or Liner to Contain Liquids: 264.175(b)(1)**

The responses are adequate.

**D-1a(3)(c) Containment System Capacity and Control of Run-on: 270.15(a)(3) and (4), 264.175(b)(3) and (4)**

The response is not adequate. Although the application states (Section 2.2.2, second paragraph) that "This area is restricted to wastes that do not contain free liquids", this statement appears to apply only to the stabilized waste portion of the roll-off storage area. According to Section 2.2.2, (third paragraph) wastes which are accepted in roll-off containers that are found to contain liquids (whether they are expected to contain liquids or not, prior to arriving at the facility) may

be stored in the roll-off storage area. Free liquids in roll-offs may be removed by vacuum truck while the roll-offs are stored in the roll-off storage area, and wastes containing free liquids may be stabilized at some future time, after being stored in the roll-off storage area for indefinite time periods. Section 2.2.1 (first sentence) states: "There is a potential for free liquids to exist in incoming waste." The response refers to the "criteria for no free liquids" in the waste acceptance criteria, but no mention of any prohibition of acceptance of free liquids in incoming roll-off containers was found in the "Facility Waste Acceptance" discussion (Section 2.2.1) or the "Waste Analysis Plan" (Chapter 4). Therefore, the requirements for the application to demonstrate that the incoming roll-off container storage area containment system will have sufficient capacity to contain 10% of the total volume of (44) containers, and any run-on (in 264.175(b)(3) and (4)) are applicable. Precipitation which falls directly on the unit is defined as run-on in 260.10. The application must be revised to include calculations based on the roll-off storage unit design that demonstrate compliance with these requirements.

**D-1a(3)(e) Removal of Liquids from Containment System: 270.15(a)(5), 264.175(b)(5)**

The response is not adequate. Although inspection frequencies are listed in Table 5-1, the application does not provide the required commitment to remove spilled or leaked waste and accumulated precipitation as necessary to prevent overflow of the collection systems. The application must be revised to include such a commitment, to demonstrate compliance with 264.175(b)(5).

**D-1b Containers Without Free Liquids: 270.15(b)**

The response is adequate.

**D-1b(1) Test for Free Liquids: 270.15(b)(1)**

The response is adequate.

**D-1b(2) Description of Containers: 264.171, 264.172**

The response is adequate.

**D-1b(3) Container Management Practices: 264.173**

The response is adequate.

**D-1b(4) Container Storage Area Drainage: 270.15(b)(2), 264.175(c)**

The response is not adequate. The response does not indicate that the application will be revised to include the proposed restriction on placement of roll-off containers within 60 feet from the south berm, and does not demonstrate compliance with the drainage requirement in 264.175(c).

**D-2      Tank Systems: 270.16, 264.19 through 264.194, 262.10**

The response is adequate.

**D-2a      Tank Systems Description: 270.14(b)(1), 264.194(a)**

The response is adequate.

**D-2a(1)      Dimensions and Capacity of Each Tank: 270.16 (b)**

The response is adequate.

**D-2a(2)      Description of Feed Systems, Safety Cutoff, Bypass Systems and Pressure Controls: 270.16(c), 264.194(b)**

The response is adequate.

**D-2a(3)      Diagram of Piping, Instrumentation and Process Flow: 270.16(d)**

The response is adequate.

**D-2a(4)      Ignitable, Reactive and Incompatible Wastes: 270.16(j), 264.17(b), 264.198, 264.199**

The response is adequate.

**D-2c(1)      Assessment of New Tank System's Integrity: 270.16, 264.192**

The response is adequate.

**D-2d(1)      Plans and Description of the Design, Construction, and Operation of the Secondary Containment System:**

The response is adequate.

**D-4      Surface Impoundments**

The response is adequate.

**D-4e(2)      Soil Liners: 270.17(b)(1), 264.221(a), and 264.221(c)(1)**

The response is adequate.

**D-4e(2)(a) Material Testing Data: 270.17(b)(1), and 264.221(c)**

The response is adequate.

**D-4e(2)(b) Soil Liner Compatibility Data: 270.17(b)(1), 264.221(a)(1)**

The response is adequate.

**D-4f(1) System Operation and Design: 270.17(b)(1), 264.221(c)(2) and (3)**

The response is adequate.

**D-4g Liner System, Construction and Maintenance**

**D-4g(1)(c) Leak Detection System: 270.7(b)(1), and 264.221(a)**

The response is adequate.

**D-4g(3) Construction Quality Assurance Program: 270.17(b)(1), 270.17(b)(4), 270.30(k)(2), 264.19, and 264.229 (a)**

The response is adequate.

**D-4i Leakage Response Action Plan: 270.17(b)(5), 264.223(b) and (c)**

The response is adequate.

**D-4j(3) Prevention of Overtopping: 270.17 (b)(2), and 264.221(g)**

The response is adequate.

**D-6 Landfills: 270.14(a), 270.21 and 264.300 through 264.317**

**D-6c(3) Loads on Liner System: 270.21(b)(1), 264.301(a)(1)(I)**

The response is not adequate. Although the response explains that the primary synthetic liner will be covered with protective soil during construction, this information is not present in the application and is not proposed to be included. Since this is an important part of the construction plan and is intended to protect the top liner from sun exposure or wind damage, it must be included in the application.

Note that the determination that the application or response is otherwise adequate does not mean that the reviewer agrees with the conclusions expressed by the design engineer (that the landfill slopes will be stable after rainstorms, or if equipment larger than a D6 dozer is operated on the slopes).

**D-6c(4) Liner System Coverage: 270.21(b)(1), 264.301(a)(1)(iii)**

The response is adequate.

**D-6c(5) Liner System Exposure Prevention: 270.21(b)(1), 264.301(a)(1)**

The response is not adequate. (See comment D-6(c)(3))

**D-6d Liner System Foundation: 270.21(b)(1), 264.301(a)(1)(ii)**

The response is adequate.

**D-6d(4)(b) Bearing Capacity: 270.21(b)(1), 264.301(a)(1)(ii)**

The response is adequate.

**D-6e(1)(a) Synthetic Liner Compatibility Data: 270.21(b)(1), 264.301(a)(1)**

The response is adequate.

**D-6e(1)(c) Synthetic Liner Bedding: 270.21(b)(1), 264.301(a)(1)(ii)**

The response is adequate.

**D-6e(2)(b) Soil Liner Compatibility Data: 270.21(b)(1), 264.301(a)(1)(i), 264.301(c)(1)(ii)**

The response is adequate.

**D-6f(1) System Operation and Design: 270.21(b)(1), 264.301(a)(2), 264.301(c)(2), 264.301(c)(3)**

The response is adequate.

**D-6f(2) Drainage Material: 270.21(b)(1), 264.301(a)(2), 264.301(c)(3)(ii)**

The response is adequate.

**D-6f(3) Grading and Drainage: 270.21(b)(1), 264.301(a)(2), 264.301(c)(2), 264.301(c)(3)**

The response is adequate.

**D-6f(4) Maximum Leachate Head: 270.21(b)(1), 264.301(a)(2), 264.301(c)(2)**

The response is adequate.



**D-6f(5) Systems Compatibility: 270.21(b)(1), 264.301(a)(2)(I)(A), 264.301(c)(3)(iii)**

The response is adequate.

**D-6f(7) Prevention of Clogging: 270.21(b)(1), 264.301(a)(2)(ii), 264.301(c)(3)(iv)**

The response is adequate.

**D-6g Liner System Construction and Maintenance: 270.21(b)(1), 264.301(a)(1)**

The response is adequate.

**D-6g(1)(b) Soil Liners: 270.21(b)(1), 264.301(a)(1)**

The response is adequate.

**D-6g(2) Construction Specifications: 270.14(a), 270.21(b)(1), 264.301(a)(1)**

The response is adequate.

**D-6g(2)(b) Soil Liner: 270.21(b)(1), 264.301(a)(1), 264.303(c)(2)**

The response is adequate.

**D-6g(2)(d) Leachate Collection and Leak Detection Systems: 270.21(b)(1), 264.301(a) and (c)**

The response is not adequate. Although only Phase 1A of the landfill is to be permitted, the response does not address the missing leachate collection system design details, specifications and CQA requirements for leachate level sensors, pump control systems and flow meters. This information must be included in the application.

**D-6g(3) Construction Quality Assurance Program: 270.21(b)(1), 270.30(k)(2), 264.19, 264.303(a)**

The response is adequate.

**D-6g(4) Maintenance Procedures for Leachate Collection & Leak Detection Systems: 270.21(b)(1), 264.301(a) and (c)**

The response is adequate.

**D-6g(5) Liner Repairs During Operation: 270.21(b)(1), 264.301(a)**

The response is adequate.

**D-6h Action Leakage Rate: 270.21(b)(1)(v), 264.302**

The response is adequate.

**D-6h(2) Monitoring of Leakage: 270.21(b)(1)(v), 264.302(b)**

The response is adequate.

**D-6i(1) Response Actions: 270.21(b)(1)(v), 264.304**

The response is adequate.

**D-6j Run-on and Run-off Control Systems: 270.21(b)(2), 264.301(g)**

The response is adequate.

**D-6j(3) Management of Collection and Holding Units: 270.21(b)(4), 264.301(I)**

The response is adequate.

**D-6j(5) Maintenance: 270.21(b)(2) and (3), 264.301(g) and (h)**

The response is adequate.

**D-6k Control of Wind Dispersion: 270.21(b)(5), 264.301(j)**

The response is adequate.

**I. CLOSURE PLANS**

**I-1a Closure Performance Standard: 270.14(b)(13), 264.111**

No response

**I-1e(2) Disposal or Decontamination of Equipment, Structures and Soils: 264.112(b)(4), 264.114**

No response

**I-1e(3)(b) Cover Design: 264.310(a)**

The response is adequate.

**I-1e(3)(e) Grading and Drainage: 264.310(a)(3)**

The response is adequate.