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May 16, 2000

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RECEIVED

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

Reference: Work Assignment Y513; State of New Mexico Environment Department, Santa Fe, NM; General Permit Support Contract; Triassic Park Engineering Design Review; Review of Tank Certification; Draft Deliverable

Dear Mr. Bearzi:

TechLaw has reviewed Montgomery Watson's Draft Certification and referenced portions of the Draft Permit Application to determine if the Tank Certification is complete. The review was based on the RCRA 264 Subpart J Tank System Regulations and the EPA Guidance "Technical Resource Document for the Storage and Treatment of Hazardous Waste in Tank Systems" (December 1986).

During a previous conversation with Ms. Kruse, she requested information on the criteria used for determining the independence of the professional engineer certifying the tank(s) assessment. The above-referenced guidance states, "...Because the regulations require the engineer to be independent, he/she cannot be employed by the tank system owner or operator, in order to avoid a conflict of interest or the appearance of such a conflict..." (Guidance, page 141). Based on a liberal interpretation, it would appear that Montgomery Watson could provide the tank certification. TechLaw is not aware of NMED policy regarding this issue but believe the NMED may be justified in requesting the engineering firm which designed the tanks provide the engineering certification.



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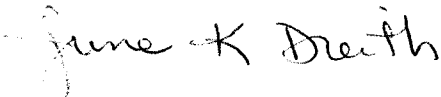
We have included in our review a comment regarding the 90-day leachate tank. These tanks are not subject to the permitting requirement but are still required to address the tank certification requirements. NMED may wish to address this issue separately, in which case the comment under "Landfill Leachate Tanks" should be removed.

TechLaw has also included a tank certification comment regarding "seismic considerations." Since TechLaw has only been involved in the evaluation of the engineer design section of the application, this issue may have been addressed in another location. If so, NMED may wish to delete this comment prior to submitting to the facility.

Enclosed is a hard copy and a file of the deliverable on a 3.5-inch diskette in WordPerfect 6.1 format. In addition, the file was e-mailed to Ms. Stephanie Kruse in your office.

Please call me at (303) 763-7188 if you have any further questions.

Sincerely,



June K. Dreith  
Project Manager

enclosure

cc. S. Kruse  
W. Jordan  
G. Koenig  
D. Romero (file)

**TRIASSIC PARK HAZARDOUS WASTE FACILITY  
DRAFT TANK SYSTEM CERTIFICATION  
MAY 8, 2000  
REVIEW COMMENTS**

**SUMMARY**

TechLaw, Inc reviewed the Triassic Park Part B Permit Application Tank Certification (Tank Certification) for regulatory completeness and found it incomplete in these areas:

- The Draft Certification did not address whether the proposed tank system locations are within a seismic fault zone and require additional design considerations.
- The information required to conduct the assessment subject to the Certification is either incomplete or missing from the Triassic Park Hazardous Waste Facility Part B Permit Application locations cited in the Tank Certification. This is due to the fact that the Part B Permit Application does not contain enough design information to assess the structural integrity and acceptability of the proposed tank systems.

**BACKGROUND**

A written assessment (certified by a registered professional engineer) of the structural integrity and acceptability of new hazardous waste tank systems must be submitted to and approved by the permitting agency prior to construction of the new tank systems. A "Draft Triassic Park Part B Permit Application Tank Certification" (Tank Certification) was submitted to New Mexico Environmental Department (NMED) on May 8, 2000, by Montgomery Watson. The Draft Certification consists of a table containing the regulatory requirements and the locations in the Part B Permit Application where the information supporting the Certification appears. Three tank systems are subject to certification:

- Landfill leachate tanks
- Liquid waste storage tanks
- Stabilization bins

**SEISMIC CONSIDERATIONS**

The regulations (264.192(a)(5)(ii)) require additional design considerations for tank systems located in seismic fault zones. The Tank Certification does not state whether seismic considerations are applicable. Revise the Tank Certification to state the applicability of seismic considerations and cite the location in the Part B Permit Application supporting that statement.

## **LANDFILL LEACHATE TANKS**

The landfill leachate tanks are described in the Part B Permit Application as being 90-day accumulation tanks, and therefore not subject to permit requirements, although they are still subject to certification requirements. The facility must assure that the certification requirements are provided to NMED even if the certification of these tanks is not specifically addressed in the Part B Permit application.

The leachate tanks appear to be standard vendor-supplied prefabricated items. The Tank Certification states that the design standards to which the tanks and ancillary equipment appear on Drawing 40 and in Appendix H. The leachate tanks actually appear on Drawing 19 (sheets 1-3). None of these locations, however, contains information needed for the assessment, such as materials of construction, wall thickness, foundation anchors, structural supports, tank seams, tank venting, location of manways, tank/piping connection details, and the actual standards to which the tank systems have been designed. Revise the Tank Certification and associated references to the Part B Permit Application to include this information.

The Tank Certification states that the hazardous characteristics of the wastes to be handled appears in Appendix H. Appendix H contains what appears to be catalog cut-sheets showing the chemical resistance of a specific tank material of construction, but there is no mention as to whether this material of construction will be used for any of the components of the tank system or whether the chemical substances cited are representative of the wastes expected to be handled in the tank system. Revise the Tank Certification and associated references to the Part B Permit Application to include the materials of construction for all tank system components and provide chemical compatibility data relevant to the wastes expected to be handled.

## **LIQUID WASTE STORAGE TANKS**

The liquid waste storage tanks appear to be standard vendor-supplied prefabricated items. The Tank Certification states that the design standards for the tanks and ancillary equipment appear on Drawing 40 and in Appendix H. Neither of these locations, however, contains information needed for the assessment, such as materials of construction, wall thickness, tank seams, structural supports, tank venting, location of manways, tank/piping connection details, and the actual standards to which the tank systems have been designed. Revise the Tank Certification and associated references to the Part B Permit Application to include this information.

The Tank Certification states that the hazardous characteristics of the wastes to be handled appears in Appendix H. Appendix H contains what appears to be catalog cut-sheets showing the chemical resistance of a specific tank material of construction, but there is no mention as to whether this material of construction will be used for all components of the tank system or whether the chemical substances cited are representative of the wastes expected to be handled in the tank system. Revise the Part B Permit Application to include the materials of construction for all tank system components and provide chemical compatibility data relevant to the wastes expected to be handled.

## STABILIZATION BINS

The stabilization bins appear to be “one-off” items designed solely for this application, requiring significant engineering design effort. The Tank Certification states that the design standards for the stabilization bins appears in Appendix E33. Appendix E33 contains a preliminary study which identifies key design parameters but does not actually provide design details. Additional information also appears on Drawings 35 & 36 (sheets 1 & 2). None of these locations, however contains information needed for the assessment, such as materials of construction, wall thickness, tank seams and welding details, structural supports, and the actual standards to which the tank systems have been designed. Revise the Tank Certification and associated references to the Part B Permit Application to include this information.

The Tank Certification states that the “...steel mixing bins (stabilization bins) may be subjected to some reaction with the waste, however, steel is the only practical material that can be used to withstand the impact from the mixing equipment. GMI has committed to inspect the bins on daily basis to identify any impacts or damage from the waste being stored in the bins and the mixing equipment (Section 5.2.5). GMI fully realizes that these bins will have to maintained and repaired or replaced on the results of the inspection...” The regulations (264.192 (a)) require that “...the tank system has sufficient structural strength, compatibility with the waste(s) to be stored or treated, and corrosion protection to ensure that it will not collapse, rupture, or fail...” The assessment must demonstrate compliance with the regulatory requirement. The regulatory requirement can be met by limits on or pretreatment of the waste, optimum selection of tank system materials, modifying the treatment process, or some combination of the above. Revise the Tank Certification and associated references to the Part B Permit Application accordingly.