

RED TRDF 101



STATE OF NEW MEXICO
ENVIRONMENT DEPARTMENT
BEFORE HEARING OFFICER FELICIA ORTH

IN THE MATTER OF THE DRAFT
FINAL PERMIT FOR THE TRIASSIC
PARK WASTE DISPOSAL FACILITY
U.S. EPA NO. NM0001002484

No. HRM 01-02(P)

GME's

APPLICANT TRIASSIC PARK'S JOINT CLOSING ARGUMENT, MEMORANDUM
IN SUPPORT AND PROPOSED FINDINGS OF FACTS AND CONCLUSIONS OF
LAW

COMES NOW the Applicant Triassic Park, (Triassic) by and through its counsel of record, Dolan & Domenici, P.C. (Pete V. Domenici, Jr., Esq.), and respectfully submits this Closing Argument and Memorandum in Support and Proposed Findings of Fact and Conclusions of Law in support of the issues of a Hazardous Waste facility permit for Triassic Park. This document contains three sections:

- I. The Applicant's Closing Argument and Memorandum in Support;
- II. The Applicant's Proposed Findings of Fact; and
- III. The Applicant's Proposed Conclusions of Law

The closing arguments/memorandum addresses the major arguments or issues raised at the Public Hearing and shows that the Applicant's proposed Findings and Conclusions are supported by the preponderance of the evidence in the record. The Proposed Findings address the permitting process and then proceed through each part of the Draft Permit to demonstrate how the Applicant has met its burden of proof for the permit issuance. The proposed Conclusions show how the Applicant has complied with regulatory requirements applicable to

the final permit. When the full record is considered as evidence, then an issuance of the final permit is justified. The Applicant respectfully requests the Hearing Officer recommend issuance of a final permit to the Secretary of the New Mexico Environment Department (“NMED”).

1. Closing Argument and Memorandum in Support

1. The Applicant has meet its burden of proof and shown that issuance of a final permit is supported by the record.

The regulations issued under the Hazardous Waste Act provide that at a Public Hearing on permit issuance the burden of proof is on the Applicant or permittee 20NMAC 1.1901.E.6Z. The preponderance of the evidence is the appropriate standard of proof in administrative hearings. NMED permit procedure at 20NMAC1.4.401.C establishes a preponderance of evidence standard for each matter in controversy. At the Public Hearing the Applicant indicated that it challenged only two issues from the Draft Permit. The interested parties indicated they would provide technical testimony on specific permit parts. Parts 1-6, 9 and 10 of the Draft Permit are not subject to controversy and are supported by the record and are undisputed.

The provisions of the Draft Permit are primarily driven by the requirements of the various regulations applicable to the Hazardous Waste Act permit. As a result, the Applicant’s burden of proof requires a showing that the Applicant’s programs, operations and procedures will satisfy the requirements for each permit provision.

The Applicant submitted an initial application, an amended application, comments on the final Draft Permit and exhibits and technical testimony in the hearing and made part of the

hearing record. Pursuant to 20NMAC1.4.502 the Applicant files proposed Findings of Fact and Conclusions of Law that are based upon this record.

The Applicant has structured its proposed Findings of Fact and Conclusions of Law to proceed using the parts of the Draft Permit. The record demonstrates that the Applicant has complied with all applicable regulations and has satisfied its burden of proof in all parts of the Draft Permit.

2. Permit Process Satisfies Applicable Regulations

The New Mexico Hazardous Waste Act and its regulations provide specific requirements for application, notice, review and issuance of a hazardous waste permit. In many instances, the Hazardous Waste regulations adopt by incorporation applicable parts of the federal regulations (40 CFR 264, 40 CFR 270, 40 CFR 124, *et seq.*) adopted pursuant to the federal statutory authority.

NMED is required to provide notice of the application and requests comments. NMED complied with the requirements of notice and acceptance of comments on the application. Following the application, public notice and comment, public meetings, a notice of deficiency (NOD) process took place between the Applicant and the NMED. After NODs and responses, the application was declared administratively complete. Following this determination the NMED issued its initial Draft Permit and provided public notice and requested comments and provided a Fact Sheet 40 NMAC 4.1.901 (d) and (e). NMED omitted certain sections of the permit in this Draft Permit and the draft was rescinded, revised and reissued. Following the re-issuance, the Draft Permit was publicly noticed, comments requested and a Fact Sheet made available. Following issuance of the second Draft Permit, the

Applicant held four voluntary public meetings to continue to interface with the public.

Applicant's Response to Opposed Motion for Public Hearing dated September 5, 2001.

NMED satisfied the requirement of forty five (45) days for public comments following issuance of the Draft Permit. (NMED Hearing Exhibit "A"). NMED allowed for 125 days of public comments on the Draft Permit. During the public comment period on the Draft Permit (initial and second draft), the Applicant voluntarily had a series of public meetings. (NMED Hearing Exhibit "A"). These were not mandatory and not governed by the requirements of the regulations. (NMED Hearing Exhibit "A"). However, the Applicant attempted in good faith to provide meaningful public notice to obtain input from NMED on the form of the notice and to satisfy requests of the parties regarding the conduct of the public meetings. (NMED Hearing Exhibit "A").

The only notification the Applicant had of any issue regarding translation was a request made to have a translator available for the question and answer session at the voluntary public information meeting held in Hagerman, New Mexico. (Letter of May 23, 2001 filed as AR 01-073). There was no request for any additional translation services at any of the mandatory or voluntary public information meetings. (Schultz, Tr. Pg. 980, Lns. 8-14). The Applicant prepared for and had a translator available for the question and answer session of the public information meeting in Hagerman on July 19, 2001. The Applicant attempted to provide reasonable and meaningful notice of the meetings and attempted to respond to the one request for translation. There was substantial attendance at the voluntary information meetings and comments were received during the comment period. (Exhibit "B" attached to Applicant's Response to Opposed Motion for Public Hearing filed September 5, 2001).

The Applicant made a timely request for a Public Hearing that was granted. The date of the hearing was set forth in public notices. Following the determination of the NMED to hold the hearing on the date established, a motion to continue the hearing was filed. The hearing officer allowed written memoranda be filed by the parties and conducted a telephonic hearing. At the conclusion of the hearing, the hearing officer issued an order requiring the Applicant to provide translator services for the hearing, and the Applicant provided an additional public information meeting with translator service on evening of October 15, 2001 with all of its experts available for presentation and question by the public. The hearing officer denied the request to continue the public hearing. (Order on Motion to Reschedule Hearing filed October 3, 2001). The public hearing process complied with applicable requirements.

3. The Hearing Officer was correct in ruling that the testimony which Ms. Deborah Reade, of Citizens for Alternatives to Radioactive Dumping (CARD), proposed to offer was irrelevant and did not provide a basis for either denying the Permit or for adding a special condition to the permit.

In her Notice of Intent to Present Technical Testimony, Ms. Reade proposed to offer testimony concerning the alleged failure of the NMED and the Applicant to consider environmental justice in the siting of the Triassic Park facility. The Notice of Intent stated that Ms. Reade proposed to introduce evidence relating to federal Environmental Protection Agency's Environmental Justice Program. As argued in the Applicant's Motion in Limine, the Federal Environmental Justice Program and guidelines cited to by Ms. Reade are non-binding policies for federal agencies. The Applicant further argued that the issuance or denial of the

Applicant's permit is governed, not by federal non-binding policy, but by the specific requirements of the New Mexico Hazardous Waste Act and implementing regulations.

In her ruling on the Applicant's Motion in Limine, the Hearing Officer specifically found that the testimony of Ms. Reade was not relevant to NMED's decision on issuing the permit. (Corser Tr. pg. 32, Ins15-25; pg. 40, Ins7-25 to pg.41, Ins 1-11). As the Hearing Officer correctly stated, the state permitting procedures provide the basis and the procedures under which the Triassic Park permit is to be issued and the state permitting procedures do not provide a basis for denying the permit based on environmental justice concerns. Under the applicable state laws and regulations, the Hearing Officer was correct in holding that there is no basis for denying or delaying the issuance of the permit based on the alleged failure of either NMED or the Applicant to conduct an analysis of potential environmental justice concerns. Therefore, the testimony of Ms. Reade, and the documents offered into evidence as part of her testimony, should not be considered by the Secretary.

Although the Hearing Officer ruled that Ms. Reade's testimony was irrelevant, she did allow Ms. Reade to give testimony as an offer of proof. In the event that Ms. Reade's testimony is considered as part of the final decision as to whether or not to issue the Permit, her testimony does not provide a basis for either denying or delaying issuance of the Permit. Although the Applicant does not agree that the United States Environmental Protection Agency (USEPA) policies on environmental justice apply in this matter, a review of the USEPA policy provides a general framework for determining whether disparate impacts exist. The USEPA guideline for investigating environmental justice complaints related to permit issuance identifies five basic steps: 1) identification of the affected population; 2) determination of the

demographics of the affected population; 3) determination of the universe(s) of facilities and total affected population; 4) conducting a disparate impact analysis; and 5) determination of the significance of the disparity. USEPA Interim Guidance for Investigating Title VI Administrative Complaints Challenging Permits, February, 1998, at pps. 9-11.

The testimony presented by Ms. Reade and the exhibits submitted in support of her testimony, do not meet the minimum requirements for consideration of environmental justice issues. First, Ms. Reade did not identify the population that may be affected by the Permit. *Id.* at 9. Nor did she identify specific impacts that would be a direct result of the issuance of the Permit. *Id.* When asked on cross-examination to identify the affected population, she was unable to do so. (Reade, Tr. pg. 776, lns. 11-25 to pg. 789, lns 1-9). Ms. Reade also did not offer any testimony to dispute the earlier testimony of Dr. Al Westerman and Mr. R.C. Cudney that there were eleven houses within a 10-mile radius of the facility and that there were no potential health risks beyond a 10-mile radius of the facility. (Reade, Tr. pg. 785, lns. 24-25 to pg. 786, lns. 1-19). As to the second requirement, Ms. Reade offered only general demographic information about the population within a 25-mile to 50-mile radius of the proposed facility without offering proof that there would be impacts from the facility within that distance. Without a clear identification of the actual affected population, general demographic information does not support a finding of disparate impact. Further Applicant offered rebuttal documentation that demonstrated that the economic information upon which Ms. Reade relied was not accurate. (Reade, Tr. pg. 789, ln. 25 to pg. 791, lns. 1-10). Ms. Reade also did not identify with any specificity what other permitted facilities should be included in the analysis and she also did not offer evidence of the racial or ethnic composition

of the populations affected by those permits. USEPA Interim Guidelines at 10. In fact, when asked if she had heard the term “universe of facilities,” Ms. Reade testified that she had not. (Reade, Tr. pg. 791, lns. 11-17). Finally, Ms. Reade did not make any comparisons of the allegedly affected population to unaffected populations, either within the State of New Mexico or in comparable areas and Ms. Reade did not provide any statistical analysis on the alleged disparity of impacts.

At a minimum, a consideration of environmental justice concerns must be based on a showing that there is a discriminatory effect resulting from the issuance of a permit. Ms. Reade did not provide any testimony or documentation supporting even a preliminary finding of a disparate effect. She presented demographics concerning population, income and health concerns in the southeastern part of New Mexico but she did not offer any evidence that those statistics are significantly different than in other areas of the state. Nor did she offer evidence that the incident of permitted facilities is any different in that part of the State from other areas. Therefore, in considering whether to issue the requested Permit, Ms. Reade’s testimony should not be taken into account.

4. The NMED closure and post-closure cost estimates satisfy applicable regulations.

The Applicant accepts the NMED’s closure and post-closure estimates in the Draft Permit. NMED requested closure and post-closure cost estimates in the amount of \$14,163,996 for the year 2000 costs. (NMED Hearing Exhibit "A"). This estimate is based upon NMED’s cost to perform the Applicant’s closure and post-closure plan as shown by drawings and construction specifications and plan.

Prior to the hearing, CURE identified Paul Robinson as a witness to provide testimony on closure and post-closure cost estimates and financial assurance. In the submittal, one of Robinson's primary concerns was a lack of indirect costs in closure and post-closure cost estimates. (Exhibit 3 attached to CURE's Notice of Intent dated September 21, 2001). In the pre-hearing submittal, the Applicant specifically identified substantial indirect costs throughout the closure and post-closure cost estimates. *Id.* At the hearing, Mr. Robinson indicated the indirect costs itemization in the Applicant's pre-hearing submittal verifies that the indirect costs were included in many of the items. (Robinson, Tr. pg. 1142, Ins. 24-25; pgs. 1143 to 144, Ins. 1-16).

In its cost analysis, the Applicant used third party bids or actual information on costs from third parties for similar types of activities and industry cost manuals. The applicable regulations do not specify how third party costs should be obtained (40 C.F.R. 264§112 (b)). NMED performed a similar analysis and obtained bids or estimates from third parties' construction estimates. (NMED Hearing Exhibit "A"). NMED used its experience in calculating closure costs and financial assurance on other RCRA facilities and its review of the Applicant costs. (Cobrain, Tr. pg. 903, ln13 through pg. 905, ln. 19)

The Applicant withdraws their objection to NMED's Draft Permit cost calculations based upon the submittal of the detail by the NMED expert Mr. Cobraine documenting his landfill cover cost calculations. Those are the only calculations that were substantially in dispute between the Applicant and NMED. Based on Mr. Cobraine's testimony and supplemented by the documentation, the Applicant does not object to the NMED Draft Permit cost estimate.

One of Mr. Robinson's specific closure plan concerns was that the design documents for the landfill cover contemplate that all phases of construction had been completed and did not include a design cost to modify the design for Phase IA. (Robinson, Tr. Pg. 689, Ins. 15-20). The Applicant does not object to a condition including a design cost to modify the landfill cover design for Phase IA.

On rebuttal, Mr. Robinson testified to the three primary concerns related to closure, post-closure and financial assurance. One of them was that the financial assurance mechanisms were not specified. (Robinson, Tr. pg. 652, Ins. 4-22). The permit will require that financial assurance will be in place before the facility becomes operational, but does not require the Applicant perform additional analysis regarding financial assurance instrument prior to obtaining a permit (40 CFR § 264.143).

Mr. Robinson objected to a construction methodology for using fixed prices obtained from third parties as a basis for cost estimates. Mr. Robinson would allegedly prefer to use construction industry manuals, although he provides no basis for indicating those estimates are more accurate than third party bids. (Robinson, Tr. Pg. 663, Ins. 5-10). He then indicates that if third party bids are used, he wishes to have substantial indirect costs added to those third party bids including costs, which are typically included in those bids such as contract and profit. (Robinson, Tr. Pg. 668, Ins. 6-23). Based on Mr. Cobraine's testimony as compared to the cost detail of the Applicant, it is likely that substantial extra costs are built into the calculations, rather than insufficient indirect costs as Mr. Robinson contends.

Mr. Robinson's other contention was that he wanted more detail in the closure requirements for the facility. (Robinson, Tr. Pg. 669, Ins. 2-21). The record is clear that the

Applicant has provided detailed design drawings and construction specifications for closure and post-closure. (~~Application and Application Exhibits, AR 94-012 and AR 94-013~~ ^{Application AR 00-079}). In initial testimony, Mr. Robinson indicated concerns about erosion, however, Mr. Corser, the Applicant's Professional Engineer, indicated how those were addressed. (Corser, Tr. Pg. 1024, Ins. 8-14). Mr. Robinson did not provide specific information regarding detail that would substantially change the costs of closure, or would change the performance of post-closure.

Based on the details presented by the Applicant, the cost information from the Applicant showing that indirect costs were considered, the expertise, experience and review by the NMED, Mr. Robinson's assertions about insufficient detail in the closure and post-closure plan, and, therefore the cost estimates, are not supported by substantial evidence and do not justify delay or denial or condition of the permit as set forth above.

5. The Endangered Species Act does not provide a basis to deny or modify the application.

In its Notice of Intent ("NOI"), CURE enlisted Dr. James Bailey as a witness to testify to the Endangered Species Act related to the impacts of the facility. (Exhibit 1 attached to CURE's Notice of Intent dated September 21, 2001.) In his NOI, Dr. Bailey limited his testimony to impacts of the facility on the habitat for the Lesser Prairie Chicken. In his hearing testimony he also discussed the Sand Lizard and its status. (Bailey, Tr. Pg. 585, Ins. 13 - 15).

The NMED's testimony indicated that they deferred issues related to endangered species to the New Mexico Game and Fish Department. They sought and received a consultation from the Game and Fish Department. (New Mexico Game and Fish Department letter filed September 21, 2001). The U.S. Fish and Wildlife were copied on the New Mexico

Game and Fish consultation. The consultation's response is the New Mexico Game and Fish Department's affected position. (Baily, Tr. Pg. 591, Ins. 16-25; Pgs. 592 through 593, Ins. 1-21).

The record is clear that no witness testimony or any other form of evidence indicate that the facility would violate the Endangered Species Act. The species of concern identified by various witnesses are the Lesser Prairie Chicken and the Sand Lizard, neither of which are listed under the Endangered Species Act. (Merino, Tr. Pg. 70, Ins. 3-18 and Direct Testimony of Joe Merino filed with Applicant's Notice of Intent filed September 21, 2001). None of the witnesses discussing these species established any jurisdiction of the New Mexico Environment Department under the Hazardous Waste Act, or its regulations for considering species of concern, whether they are listed as federal endangered species or otherwise. Thus, there is no jurisdictional basis on the record for review and consideration of this issue.

Even though there is no jurisdictional or regulatory basis, the factual testimony on the species of concern indicates that the facility will appropriately handle any issues involving the species of concern. CURE's witness, James Bailey, who is extremely knowledgeable on the Lesser Prairie Chicken indicated that the total habitat for the Lesser Prairie Chicken is one million nine hundred seventy-six thousand three hundred forty (1,976,340) acres. (CURE Hearing Exhibit 21). He also indicated that the proposed GMI facility is at the outer edge of this habitat and is marginal habitat. (Baily, Tr. Pg. 597, Ins. 14-17). Mark Marley of GMI indicated that the total acreage within the proposed facility which contains the type of habitat needed for the Lesser Prairie Chicken is less than one hundred (100) acres. (Marley, Pg. 1001, Ins. 16-18). There is no evidence in the record to dispute this calculation. Thus, the total

potential impact from the facility on the Lesser Prairie Chicken habitat is that the facility might remove less than one hundred (100) acres of marginal habitat at the edge of the entire habitat of range of about two million acres (2,000,000). (CURE Hearing Exhibit 21).

The New Mexico Game and Fish Department which according to the record recently conducted an in depth study of the Lesser Prairie Chicken specifically indicated “although not acknowledged as occurring within the proposed project site, the Department believes that the implementation of fencing and bird netting mitigation measures already committed to in the Permit and recommended in these comments will be sufficient to protect the Lesser Prairie Chicken from impacts associated with this project”. Game and Fish letter filed September 21, 2001. The U.S. Fish and Wildlife was copied on this and no comment or objection was identified from them in the record. *Id.* Thus, there is no grounds for denying or conditioning the facility based on the concerns of the Lesser Prairie Chicken.

Although the technical testimony regarding the Sand Dune Lizard was more limited in depth than that of the prairie chicken, the NMED consulted with Game and Fish and addressed the Sand Dune Lizard. Game and Fish letter of September 20, 2001 filed with NOI of Moreno. That consultation indicated that the proposed facility may be within the habitat of the Sand Dune Lizard. *Id.* Game and Fish made specific recommendations regarding the type of fencing necessary. *Id.* The Applicant agreed to implement the fencing requirements from Game and Fish on its site fencing. (Corser, Tr. Pg. 77, Ins. 9-13). The Applicant does not object to including the fence conditions for the permit.

There is no jurisdictional, regulatory or factual basis for conditioning the permit based on Federal endangered species concerns. The only condition on the permit that is justified by

the record, is the condition of the required fencing as set forth in the Game and Fish letter and was agreed to by the Applicant.

6. The Applicant's vadose zone monitoring system satisfies the regulatory requirements, is suited to site conditions and is protective of the environment.

The requirements for monitoring beneath the site to determine if there has been any escape of hazardous waste that might impact groundwater are set forth in 40 CFR §265.90. The basic regulatory requirement is that the Applicant must implement a groundwater monitoring program capable of determining the facilities impact on the quality of groundwater in the upper most aquifer underlying the facility; "This monitoring program must be carried out for the active life of the facility, and for disposal facilities, during the post-closure care as well". (40 CFR 265.90(b)). The regulations set forth specific requirements for the groundwater monitoring to satisfy the above regulations. Those requirements all discuss monitoring systems capable of using "groundwater samples for analysis". (40 CFR 265.91(a) (1980)). Thus, the required monitoring of this site absent application of the groundwater monitoring waiver, would require identification of the upper most aquifer underlying the facility and installation of monitor wells into that upper most aquifer so that it would be capable of obtaining groundwater samples from the aquifer. (Game and Fish letter of September 20, 2001 filed with NOI of Moreno). *Id.*

40 CFR § 260.10 defines an aquifer as a "geologic formation, group of formations, or part of a formation capable of yielding a significant amount of ground water to wells or springs," "[t]he upper most aquifer beneath the facility site" would be known as the Santa Rosa Aquifer which would be contained in the soil the geological stratigraphy beneath the site at a depth of more than 500 feet. (Hearing testimony of Patrick Corser, Jim Bonner, Steve

Pullen, and George Rice). Monitoring this aquifer upgradient beneath the facility and downgradient would likely provide no meaningful information for thousands or hundred of thousands of years. If there were releases into that aquifer the releases would have to travel through hundreds of feet of impermeable Triassic mudstone. (Hearing testimony of Jim Bonner and Steve Pullen; Groundwater Monitoring Waiver Application, AR 98-019).

Rather than pursue this type of monitoring program which is likely not to provide useful information, the Applicant chose to pursue a groundwater monitoring waiver which the Applicant and the NMED agreed was appropriate for the geologic and hydrologic conditions at this site. (Groundwater Monitoring Waiver Application, AR 98-019). 40 CFR §264.90(4) allows for a waiver from the groundwater monitoring requirements under specific limited demonstrations. The regulations require the demonstration “be certified by a qualified geologist or geo-technical engineer”. (40 CFR 90(b)(4)). The qualified professional must demonstrate, and the regulator must find that “there is no potential for migrational liquid from a regulated unit to the upper most aquifer during the active life of the regulated unit including the closure and the post closure care”. *Id.* (this would be sixty years). The predictions regarding travel time must be made “ using assumptions that maximize the rate of liquid migration”. *Id.*

In the groundwater monitoring waiver, the Applicant utilized services of both a professional geologist and a registered geo-technical engineer. (Corser, Tr. Pg. 53, Ins. 17-24; Bonner, Tr. Pg. 124, Ins. 11-21). The upper most aquifer as defined by the regulations was considered to be the portion of the Lower Dockum that was saturated. (Corser, Pg. 148, Ins. 8-24). In addition to performing an analysis of possible migration to the upper most aquifer,

the Applicant also performed an analysis of possible migration laterally along the interface of the Upper and Lower Dockum, an interface that is not defined by any technical witness to constitute a "aquifer" but was identified as an area of concern because at times it might contain liquid water flow. (Corser, Tr. Pgs. 1021 through 1025; Bonner, Tr. Pg. 145, lns. 3-24). Thus, the Applicant performed two separate analysis to satisfy the groundwater monitoring waiver, the required transport analysis to the Lower Dockum and the other to the area in which the interface between the Upper and Lower Dockum showed possible saturated water lateral to the facility. *Id.*

In both of these analysis, the Applicant's witnesses relied upon their professional expertise, including substantial site characterization based upon review of nearby oil well logs, on site borings and monitor wells. (Bonner, Tr. Pg. 133, lns. 13-25; Pg. 134 through 135, lns. 1-18). Based on their expertise, the Applicant determined that in maximizing water migration based on activity tests and hydraulic calculations, the amount of time in which water might migrate directly beneath the property to the upper most aquifer would be thousands of years. (Boner, Tr. Pg.145, lns. 16-24). The Applicant determined that the amount of time the water might migrate laterally to an area in the interface between the Upper and Lower Dockum where there was saturated water would be thousands of years. *Id.* If this were the uppermost aquifer, the RCRA requirements for this waiver would require a showing that there would be no migration for sixty (60) years. If this were the uppermost aquifer, the NMED would require a showing of no impact within eight hundred (800) years.

After meeting the required showing of transfer time to the Lower Dockum and performing additional analysis to the lateral saturated interface, the Applicant also agreed to

install a series of eight (8) monitoring wells which would monitor releases from the landfill into the area beneath it, and would monitor lateral releases from the landfill. (Bonner, Tr. Pg. 146, Ins. 7-20).

The technical testimony objected to the groundwater waiver. CURE's expert raised three (3) technical issues:

1. Hydraulic conductivity. The hydraulic conductivity used for lateral migration by the Applicant did not maximize flow. The basis for this was that out of all of the hydraulic conductivity analysis, the Applicant did not use the highest permeability number and assumes homogenous transport. (Bonner, Tr. Pg. 1157, Ins. 21-25; Pg. 1158, Ins. 1-5). Rice's primary objection to the transport analysis was the conductivity. To counter that argument, the Applicant communicated that the site was not homogenous and the use of the single highest figure rather than an average did not accurately satisfy the regulations in maximizing transport. Rice did not make any specific transport analysis or calculation to the uppermost aquifer beneath the facility. (Bonner, Tr. Pg. 158, Ins. 19-25; Pg. 159, Ins. 1-25; Pg. 160, Ins. 1-8). Mr. Rice clearly testified that the Upper Dockum lateral to the facility was the uppermost aquifer beneath the regulated unit. (Rice, Tr. Pg. 501, Ins. 18-24). Thus, any calculations that Mr. Rice questions in the Upper Dockum do not determine the migration to the "uppermost aquifer" beneath the facility.

Even though potential migration to the interface between the Upper and Lower Dockum does not involve the uppermost aquifer, even with Rice's calculations, the migration time would be sufficient to satisfy the RCRA regulatory time period. (Rice, Tr. Pg. 471, Ins. 3-14).

The only hydraulic calculation that Mr. Rice contests related to the contact point was the conductivity. He indicated that he thought the highest permeability number and an homogenous pathway should be used for the analysis. (Rice, Tr. Pg. 1149, Ins. 22-25; Pg. 1150, Ins. 1-9). However, he recognized that he is not a geologist or a geo-technical engineer (Rice, Tr. Pg. 480, Ins 7-8; Exhibit 2 attached to CURE's NOI filed September 21, 2001), as required by the regulations and testified that he has not studied the logs that were used to establish the sites geology. (Rice, Tr. Pg. 490, Ins. 11-19). When questioned about how water would flow if there were non-homogenous formations toward the contact point, Rice indicated the water would stop flowing and turn or be effected and his travel times would require adjusting. (Rice, Tr. Pg. 537, Ins. 4-18). His calculations assume that the contact point was equal to the hydraulic gradient that the flow level was the highest level of permeability recorded and that the entire path where it was homogenous at the contact point. (Rice, Tr. Pg. 535, Ins. 1-25; Pg. 536, Ins. 1-25). However, he could not support the basic homogenous assumption and the regulations do not require unrealistic, exaggerated assessments of the site condition to establish unreasonably high flow rates.

The critical, required calculations of migration time for the groundwater monitoring waiver is the calculation from a potential release from the facility to the uppermost aquifer, the Lower Dockum. (Corser, Tr. Pg. 1021, Ins. 2-9). Mr. Rice did not perform any calculations that would contradict the Applicant's migration time calculations. (Rice, Tr. Pg. 1159, Ins. 17-20). He did not dispute any of the assumptions which were input into the Applicant's calculations. (Rice, Tr. Pg. 1158, Ins. 15-21). The calculations of the Applicant were

conservative in that they used the highest permeability numbers, and assumed a saturated flow. (Bonner, Tr. Pg. 145, Ins. 16-24).

Mr. Rice's only criticism was that the Applicant's migration time calculations to the Lower Dockum were that the Applicant's characterization of the sub-surface geology did not include the possibility of fractures or faults. (Rice, Tr. Pg. 1158, Ins. 15-20). The Applicant's calculations used on the on-site of geologic conditions of the Lower Dockum because the base of the landfill will sit in the Lower Dockum. (Rice, Tr. Pg. 1158, Ins. 11-14). Thus, there was no need to consider migration through the Upper Dockum. *Id.*

With respect to the Lower Dockum, Mr. Rice's testimony was based on complete speculation regarding fractures. He indicated that he was not a geologist or a geo-technical engineer. (Rice, Tr. Pg. 480, Ins 7-8; Exhibit 2 attached to CURE's Notice of Intent filed September 21, 2001). Further, he confirmed that he was badly mistaken in his interpretation of the well log he attempted to interpret for the Hearing Officer. (Rice, Tr. Pg. 490, Ins. 11-25; Pg. 491, Ins. 1-25; Pg. 492, Ins. 1-25). Mr. Rice is incapable of disputing Mr. Bonner's geological characterization based on the numerous well logs studied by Mr. Bonner as well as the numerous borings and other general site information. Mr. Bonner concluded that the Lower Dockum consists of Triassic mudstones which are elastic, meaning that they would likely seal in any short term or temporary fracture. (Bonner, Tr. Pg. 129, Ins. 7-23). There is no geologic basis for Mr. Rice's assumptions regarding fractures and faults. He has no data to support his position and he clearly does not have the qualifications or expertise to provide evidence to overcome the substantial evidence presented by the Applicant's geologist and geo-technical engineer who base their geologic assessment on recognized geologic tools and

studies. However, he considered that mud stones were elastic (Rice, Tr. Pg. 551, lns. 6-13) and that if fractures occurred they would be likely to seal themselves. (Rice, Tr. Pg. 552, lns. 11-25; Pg. 553, lns. 1-4). Further, he did not dispute the basic geology of the Lower Dockum as based on the geological evaluation of Mr. Bonner. Thus, his entire criticism is based on speculation that there may be fractures which would increase the flow rates. There is no evidence for this position and his limited interpretation does not support his position;

2. The Applicant did not properly consider the water identified in PB 14.

However, the Applicant identified obtained detailed information on it and concluded it was a small perched aquifer. Nothing Mr. Rice identified contradicted that position or indicated any other likely source of that water. Nothing in Mr. Rice's testimony regarding PB 14 would defeat or condition the groundwater monitoring waiver;

3. The Applicant has not properly identified the point of saturation that exists at times on the contact point between the Upper and Lower Dockum lateral to the site.

Numerous on-site borings do not show any saturation at the contact point beneath the site. (Bonner, Tr. Pg. 145, lns. 3-24). However, if an additional on-site monitoring well is needed to intercept a potential path, to the offsite contact point, an additional monitoring well would be acceptable. With an additional well, there would be capture zones at regular intervals northeast of the property which would intercept potential migration towards or from the east or northeast to the contact point.

The testimony of Jim Bonner and Pat Corser indicated that the Applicant carefully studied the groundwater monitoring waiver. (Bonner, Tr. Pg. 145, ln. 25; Pg. 146, lns. 1-15). The vadose zone monitoring suggest that the Applicant is much more protective of the

environment than the monitoring required by RCRA. The monitoring required by regulations would simply require groundwater monitoring somewhere deep within the Lower Dockum upgradient of and downgradient of the site. (40 C.F.R. § 264.90). It is likely this will never produce any useful information on the site conditions.

Rather than proceed with that approach, the Applicant proposed it perform the groundwater monitoring waiver that meets for waiver requirements with respect to migration to the upper most aquifer. It also meets requirements for migration for the saturated zone of the Upper Dockum/Lower Dockum interface, which is not an aquifer, which may exist east or northeast of the facility along the contact point between the Upper and Lower Dockum. The monitoring includes a series of wells that would intercept any lateral movement of groundwater in the Upper Dockum or the allurium which is on top of it. In addition, the vadose zone monitoring will be installed beneath and adjacent to the landfill. Additionally, internal monitoring would detect any flow moving though the landfill layers.

In conclusion, the groundwater monitoring waiver is sound and satisfies RCRA requirements, is appropriate for site conditions and provides better protection for the environment than the requirements of groundwater monitoring in the upper most aquifer. The Applicant would not object to conditions which would require an additional monitoring wells.

7. APPLICANT'S CLARIFICATION OF 2.3.1 IS SUPPORTED BY SUBSTANTIAL EVIDENCE

In the Draft Permit section 2.3.1 states: "the permittee shall not accept hazardous waste from a generator of hazardous waste located outside of the United States of America. If the permittee wishes to receive hazardous waste from a source located outside of the United States,

the permittee must apply for a receive a modification to this permit in accordance with 20.4.1.900 NMAC.”

Upon receiving this language in the Draft Permit, the Applicant filed a comment indicating that it wished to clarify the language of this permit section. (Applicant's Notice of Filing dated September 17, 2001). In particular, the first sentence of the section states that the permittee shall not accept hazardous waste from a “generator” of hazardous waste located outside of the United States where the second paragraph discusses a “source” located outside of the United States. (20.4.1.900 NMAC).

In its comment to this, the Applicant indicated that there is standard protocol for the United States accepting waste from waste covered by the North American Free Trade Agreement (NAFTA), primarily waste from Mexico, but also possibly from Canada. (Applicant's Notice of Intent filed September 21, 2001). The parties of NAFTA signed and agreed to attempt to accommodate each others hazardous waste needs. *Id.*

The Applicant does not request to accept hazardous waste from any location other than Canada or Mexico. In the Draft Permit section above, the term “generator” is presumed to utilize the language used by RCRA and the New Mexico Hazardous Waste Act to identify a “generator”. Under RCRA guidelines with respect to foreign waste, foreign waste including the waste under the La Paz Agreement would have to be imported by a United States “generator” 40 CFR § 262.60(a). The waste would have a dual manifest one from the foreign generator 40 CFR § 262.60(b)(1) and one from the United States generator 40 CFR§ 262.60(b)(2). Absent both of these manifests and all other required EPA approval, the facility could not accept the waste 40 CFR § 262.60. However, if the waste generated in Mexico were

properly manifested in Mexico, properly received, reviewed and manifested by a United States generator and then delivered to the Triassic Park, Triassic would be accepting waste which has a manifest from a legally authorized United States "generator". Thus, Triassic Park would comply with the first sentence of 2.3.1 with the waste if properly handled and followed EPA requirements.

The second sentence of 2.3.1 discusses receipt of hazardous waste from "a source located outside of the United States". Similar to above, the location where the waste is generated would likely be in Mexico. However, Triassic Park acceptance would be based on a manifest from a legally authorized United States "generator". Thus, this language is also unclear as to whether the facility is prohibited from receiving waste generated in Mexico, but properly imported by a United States "generator" and then delivered to the Triassic Park facility by that "generator".

There were two pieces of evidence on this issue at the public hearing. The NMED presented an expert on the waste acceptance plan, who indicated that from a waste acceptance stand point there would be no difference between waste generated in Mexico if imported by a United States "generator" and then delivered to the Triassic Park site or waste generated within the United States by a "generator" located in the United States and then delivered to the facility. (Walker, Tr. Pg. 858 -859). All of the waste must be required to satisfy the waste acceptance criteria, or it would not be accepted at the facility. *Id.* Based on all of the technical evidence from the NMED, there is no basis for interpreting 2.3.1 to exclude waste which is properly imported into the United States and delivered to the site by a United States "generator".

The other evidence is the legal authority which the hearing officer can take judicial review of. (Applicant's Notice of Intent filed September 21, 2001, Exhibits filed with testimony of Pat Corser). This authority provides the basis for establishing the La Paz Agreement and the import requirements of the RCRA as regulated by the EPA. This legal authority indicates that there are strong procedures in place governing the import of hazardous waste. These regulations clearly indicate that the importer of the waste cannot be the disposal facility. The importer of the waste becomes the United States "generator" of the waste and thus meets all of the requirements of the "generator". If there is any problem with the waste, or any issues that need to be resolved, the "generator" is in the position of any other United States "generator" with the responsibility to provide information on the waste, to provide access to the analysis on the waste, to provide processing information on the waste and to take possession of the waste if it is rejected from the disposal facility. *Id.*

Based on the record, the Applicant contends that it has established by a preponderance of the evidence that 2.3.1 should be clarified to indicate that it does not preclude waste imported from the countries covered by the La Paz Agreement scheduling EPA/RCRA import requirements because the importer will become the United States "generator" of this waste.

8. The issue of Applicant's disclosure is not before the Hearing Officer as part of the consideration for the permit.

At the hearing the Applicant raised various issues regarding Applicant's disclosure forms. The New Mexico Hazardous Waste Act has requirements for Applicant disclosure and requires that these disclosures be updated. (NMSA § 74-4-4.7 (A) and (E) (1992)). There are no regulations, including any forms, format or methodologies for disclosure for updating or describing changes. The testimony with regard to disclosure indicated that there were no

violations of any permits by the Applicant, or a change in ownership that required disclosure. The opponents raised questions regarding whether disclosure forms needed to be updated due to different model vehicles owned by each of the facilities, or whether the driver's license numbers needed to be updated. (Blair, Tr. Pg. 1091, Ins. 20-23). Any effort to utilize this type of information as a basis for denying the permit must be based upon a written notification from the Secretary indicating that the plan has sufficient violations of the disclosure requirements to justify a discretionary action to deny or terminate the permit. (NMSA § 74-4-4.7 (E) (1992)). Based on the evidence at the hearing, there is no information that would justify such a discretionary action. Further, there is no required notice from the Secretary indicating his intent to take such action. Absent such notice, there is no basis for any decision to involve the disclosure forms. The entire issue of disclosure forms does not involve the hearing officer nor is it part of the permit process.

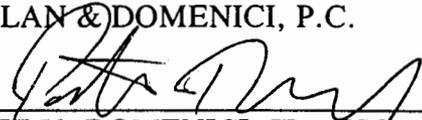
9. Conclusion

At the beginning of the case, the Applicant indicated that it supported the Draft Permit and would provide expert testimony supporting a Draft Permit on the few issues that were in contention between the Applicant and the NMED. Throughout the course of the hearing, the Applicant and its witnesses and NMED witnesses provided substantial evidence supporting the Draft Permit. Upon presentation by Mr. Cobrain of his support for third party costs, the Applicant agrees to NMED's closure and post-closure cost estimates. The other limited issues of endangered species, groundwater monitoring, and closure and post-closure/financial assurance raised by the opponents have been addressed and supported by substantial evidence. The Applicant requests the permit be issued with the limited additional conditions set forth in

this closing argument without delay, without further condition and without involvement or consideration of immaterial issues.

Respectfully submitted,

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II. Applicant's Proposed Finding of Facts

A. Regulatory History and Issuance of Draft Permit

1. Permit Application

Gandy Marley, Inc. (GMI) submitted part A of its RCRA permit application to NMED on November 17, 1994. Administrative Record (AR 95-013). GMI submitted Part B of its RCRA permit application on December 3, 1997. (AR 97-037) NMED deemed GMI permit application for the proposed Triassic Park facility administratively complete on October 16, 1998. (AR-98-016)

2. Notices of Deficiencies.

Prior to issuances of the draft permit for the proposed Triassic Park facility, NMED issued several Notices of Deficiencies (NOD) regarding GMI's permit application. In total, NMED issued twenty-four (24) NODs to GMI regarding the permit application. NODs were issued on the following dates: August 8, 1995 (AR95-021), January 30, 1996 (AR96-007), February 10, 1997 (AR 97-009), March 21, 1997 (AR 97-012), March 11, 1999 (AR 99-012), June 25, 1999 (AR 99-072), December 17, 1999 (AR 99-080), March 10, 2000 (AR 00-012), March 16, 2000 (AR 00-013), April 5, 2000 (AR 00-017), April 7, 2000 (AR 00-020), April 14, 2000 (AR 00-022), May 8, 2000 (AR 00-028), May 12, 2000 (AR 00-030), July 14, 2000 (AR 00-052), August 11, 2000 (AR 00-089), August 31, 2000 (AR 00-072), September 6, 2000 (AR 00-075), September 12, 2000 (AR 00-076), November 10, 2000 (AR 00-086), December 14, 2000 (AR 00-089), January 30, 2001 (AR 01-007), March 7, 2001 (AR

01-017). There was additional correspondence regarding inadequacies in the permit application on April 6, 1998. AR 98-008

3. Issuance of the Draft Permit

On April 4, 1996, NMED issued a draft permit for the proposed Triassic Park facility for public comment and review. AR 96-024. Based on public comment, NMED rescinded the April 4, 1996 draft permit and required GMI to amend the permit application. AR 97-023, 024. ON March 15, 2001, NMED issued a second draft permit for public comment and review. AR 01-029. Due to errors in the published version of the March 15, 2001 draft permit, NMED rescinded the March 15, 2001 draft permit. AR 01-076

4. Notice of Draft Permit

On June 15, 2001, NMED issued the current Draft Permit for the proposed Triassic Park facility. AR 01-090. Pursuant to 20 NMSC 4.1.901.C, NMED publicly noticed the availability of the Draft Permit for review and comment through publication in newspapers of the local and statewide circulation, radio announcements, and mailing out notices to GMI, EPA, state government entities, and approximately eight hundred (800) persons who requested such notice. AR 01-089, 090.

Pursuant to 20 NMAC 4.1.901.C. (4), the Public Notice provided for the Draft Permit to set forth: the date of the Public Hearing if requested and the process for requesting a hearing, the NMED Hazardous Waste Bureau as the entity responsible for the processing the permit, the name and address of GMI and proposed location of the facility, the activities to be carried out at the facility (as well as reference to the Fact

Sheet for more detail), the address and phone number of Mr. Stephen Pullen at the hazardous Waste Bureau to contact for more information, reference to the two previous notices of draft permits in this matter, and that the Draft Permit may be reviewed at the Roswell Public Library, Tatum Town Hall, NMED Hazardous Waste Bureau, and NMED web site. *Id.* In total, NMED allowed One Hundred Twenty-five (125) days for review and comment on the Draft Permit.

5. Issuance of the Fact Sheet

As part of publicly noticing the availability of the Draft Permit for review, NMED also noticed the availability of the Fact Sheet regarding the proposed Triassic Park facility. *Id.* Pursuant to 20.4.1 NMAC 901.D.2, the Fact Sheet contains a brief description of the activities to be carried out at the facility, the type of wastes to be treated and stored at the facility, an outline of the permit as well as the basis for conditions imposed under the permit and basis the ground water monitoring variance. AR 01-082.

Pursuant to 20.4.1 NMAC 901.D.(2)(e), the Fact Sheet references the Public Notice for a description of the procedures for reaching a final decision on the Draft Permit. *Id.* In the description of the procedures for reaching a final decision on the Draft Permit. *Id.* In the Public Notice the procedures for requesting a public hearing, requirements and deadlines on submitting general and technical comment, information on party status, and the address and phone number of Mr. Stephen Pullen are listed for those seeking additional information. AR 01-089, 090. On August 27, 2001, NMED issued a Supplemental Fact Sheet to reflect changes make in the Permit Application just

prior to issuance of the Draft Permit. AR 01-142.

6. Public Hearing

As part of the June 15, 2001 Public Notice, NMED stated that a public hearing on the Draft Permit was scheduled for October 15, 2001. AR 01-090. The Public Notice stated, however that if no requests for a public hearing were received, the hearing would be canceled. *Id.* Based on public interest in the proposed facility and the Applicant's request for a public hearing, by order of the Secretary of the New Mexico Environment Department (Secretary), a public hearing on the Draft Permit was set for October 15, 2001. Hearing Record (HR) 8. Additionally, the deadline to file Notice of Intent to Present Technical Testimony (NOI) at the Public Hearing was extended, by order of the Secretary, to allow for submittal until September 21, 2001. HR 7. NMED again published notice of the October 15, 2001 Public Hearing along with notice of extension of the public comment period on August 15, 2001. HR 11. On August 23, 2001, counsel for CURE moved that the Public Hearing be rescheduled for no earlier than November 12, 2001 and HMI be required to hold additional public meetings to better disseminate information in Spanish regarding the proposed facility. HR 15. On October 3, 2001, CURE's motion was denied in part, by order of the appointed Hearing Officer, and no extension was granted. Pursuant to CURE's motion, an additional public meeting prior to the hearing with a Spanish translator was ordered along with a translator for the Public Hearing. *Id.*

Five (5) NOI's were filed on or before the September 21st deadline with the Hearing Clerk. See generally HR 26-35. Six (6) Entry of Appearances were filed with the

Hearing Clerk before the deadline. *Id.*

The Public Hearing in this matter is being held One Hundred Twenty-five (125) days after the June 15, 2001 Public Notice.

7. Public Outreach

In addition to the regulatory required Public Notice, NMED has worked with GMI to provide for greater public outreach and dissemination of information to the public. GMI, with support from NMED, has held five public information meetings. These meetings were held twice in Roswell on May 4, 2001 and July 17, 2001, in Santa Fe on July 16, 2001, in Tatum on July 18, 2001, and in Hagerman with a Spanish translator available for the question and answer session on July 19, 2001 (Applicants Response to opposed Motion for Public Hearing.) NMED has provided the Fact Sheet in Spanish to all those who have requested. (Hearing Exhibit A)

B. Description of the Triassic Park Facility

8. The Triassic Park facility will be a full-service Resource Conservation and Recover Act (RCRA) Subtitle C Waste treatment, storage, and disposal operation. Notice of Intent for Pat Corser filed September 21, 2001. Testimony of Pat Corser Jr. 63-184. Application AR 00-79

9. All waste placed in the Facility will meet Land Disposal Restrictions (LDR) prior to disposal. The Facility will accept polychlorinated biphenyl (PCB) wastes that are not regulated by Toxic Substances Control Act (TSCA), that is only PCB wastes at concentrations of less than 50 parts per million (ppm) in liquids and 500 ppm for bulk

PCB remediation waste. The Facility will offer the RCRA-regulated services, which are described in the draft permit. *Id.* (AR-079)

10. Two treatment processes will be used at the Facility, including an evaporation pond for managing wastewaters that meet LDR standards and a stabilization process for treating liquids, sludges, and solids to ensure that no free liquids are present and that LDR standard are met prior to placing wastes in the landfill. *Id.* (AR-079)

11. Two container storage areas (roll-off storage area and drum handling unit) will be used to stage waste at the Facility for treatment or disposal. *Id.*

12. Four aboveground storage tanks will be utilized to accumulate regulated bulk liquids hazardous wastes prior to stabilization. *Id.*

13. A landfill will be utilized for the disposal of waste that meets LDR standards. *Id.*

14. The purpose of the Facility will be the treatment and permanent disposal of hazardous wastes in a manner protective of human health and the environment. Wastes that do not meet LDR standards will not be accepted for placement into the landfill or evaporation pond until appropriate treatment is performed. Infectious wastes and radioactive wastes will be prohibited at this Facility. The Waste Analysis Plan contains more details regarding wastes that can be accepted at the Facility and wastes that are prohibited. *Id.*

C. Description of Triassic Park Facility Condition

15. The Facility will be located in Southeastern New Mexico on approximately 480 acres of privately owned land in Chaves County, New Mexico, Sections 17 and 18 of

R31E, T11S. By road, this location is approximately 43 miles east of Roswell and 36 miles west of Tatum. The only major road in the vicinity is U.S. Highway 380, which runs east and west approximately 4 miles north of the proposed site. State Highway 172, which runs north and south, is approximately 4 miles east of the proposed site. State Highway 172 is not a major thoroughfare and does not provide access to the proposed site. *Id.*

16. The selected site for the Facility is on the western edge of a geological bench known locally as the Caprock. The Caprock is characterized by rocky terrain which runs north and south. *Id.* Testimony Jim Bonner TR 124-148.

17. The site is approximately 4,150 feet above sea level. Climatic conditions of the area are typical of semi-arid regions and are characterized by dry, warm winters with minimal snow cover and hot, somewhat more moist summers. The frost-free season averages from 190 to 215 days per year. The mean annual soil temperatures range from 59 to 65 degrees Fahrenheit. The average annual precipitation ranges from 10 to 13 inches. Winter precipitation usually consists of occasional snowfall from November through April. Snowfall typically melts within a short period of time. Most precipitation (approximately 80 percent of the annual total) occurs between June and September. Winds of up to 40 miles per hour are common during the spring and in association with summer thunderstorms. *Id.*

18. Area vegetation consists primarily of Tobosa, Buffalo Grass, Vine-Mesquite, Mesquite, Cactus, Sand Dropseed, Little Bluestem, Sand Bluestem, Sandbur, Three-Awn, Shinnery Oak, Yucca, and Sand Sagebrush. According to the New Mexico

Forestry and Resources Conservation Division of the State Department of Energy, Minerals, and Natural Resources, there are no rare or endangered plant species located in either Section 17 or 18.

19. One bird species, the Lesser Prairie Chicken, is classified as a candidate for listing as threatened or endangered by the United States Fish and Wildlife Service of the U.S. Department of Interior. Currently, it is not listed. No other documented species in the area of the proposed Facility site are federally protected or candidates for federal protection. Bailey, Tr. Pg. 576-601, Merino, Tr. Pg. 61-68.

20. The Sand Dune Sagebrush Lizard (*sceloporus graciosus arenicolous*) is currently listed as a threatened species by the State of New Mexico. Population and habitat studies are ongoing for use by the state in determining whether to give species protected status. The Sand Dune Sagebrush Lizard is not classified for federal protection. Merino, Tr. Pg. 61-68.

21. GMI will continue to monitor the existence of threatened or endangered species in the area. Should any threatened or endangered species be identified within the Facility area, GMI will take measures to ensure that these species are protected. GMI will implement protective measures for the wildlife population in the area. These measures include the use of restrictive fencing around the operational portions of the Facility and the use of protective netting over the evaporation pond. Merino, Tr. Pg. 61-68.

22. The site is located in eastern Chaves County, in an area that has historically been utilized primarily as range land for livestock grazing and for limited oil and gas

activities. The residence nearest the site is owned by Marley Ranches, Ltd. and is located approximately 2.9 miles to the east-southeast. Land ownership for a 4-mile radius is listed in Figure 1-2 of the application and all of the residences within a ten-mile radius of the site are listed in Figure 1-3 of the application. Application (AR 00-079) NOI of Corser, Bonner. Testimony of Corser, Bonner, Supra.

23. The land in the area of the Facility is used predominantly for grazing cattle and to a much lesser extent for oil and gas exploration activities. The nearest production well is 3 miles from the site. (AR-079)

24. All abandoned wells in the area have been plugged in accordance with New Mexico Oil Conservation Division (OCD) regulations. These regulations require the use of mud-laden fluids, cement and plugs in the well "in a way to confine crude petroleum oil, natural gas, or water in the strata in which it is found and to prevent it from escaping into other strata." Surface reclamation of abandoned wells prevents surface water from entering and contaminating subsurface strata. (AR-079)

D. Geologic Setting

25. Regional Stratigraphy- The geologic formations present within the region range in age from Quaternary through Triassic. Those include Quaternary Alluvium, Tertiary Ogallala Formation, and the Triassic Dockum Group. Permian sediments do not outcrop in this region but, because they underlie the proposed host sediments, they are also part of the regional stratigraphy. *Id.* Rebuttal Testimony of Corser (TR 1018-1052) Rebuttal testimony of Bonner (1054-1060; 1078-1173).

26. Quaternary- Most of the land surface east of the Pecos River to Caprock

is covered by a thin layer of erosional debris called alluvium. This unit has been eroded from the Caprock and is draped over the older sediments like a thin blanket. These deposits are comprised of fine-grained, red-brown silts and clays with abundant granitic cobbles, chert pebbles, and fragments of petrified wood. The thickness of these alluvial deposits in eastern Chaves County varies from a few feet to as much as 100 feet. (AR 00-079)

27. Teritary- As you approach the eastern edge of Chaves County, a major escarpment appears. This feature—called the Caprock—represents the base of the Ogallala Formation. The proposed site is located several hundred feet below and a mile away from the Caprock. This flat-lying sandstone and conglomeritic unit is approximately 300 to 400 feet thick. The sand deposits of the Ogallala Formation consist of fine-to-medium-grained quartz grains, which are silty and calcareous, and occur in various shades of gray and red. There are abundant petrified wood fragments throughout this unit. (AR 00-079)

28. Triassic- Triassic sediments are the potential host rocks for the proposed Facility and, as such, are described in more detail than the other formations. Driving east from Roswell across Chaves County on Highway 380 you are traveling over these Triassic red beds. Except for a few isolated exposures, there are not a lot of rocks to see. That's because most of the sediments are clays and they weather to a flat surface and therefore are easily covered. *Id.*

29. In Eastern Chaves County, the Triassic sediments are described as the Dockum Group and divided into the Upper and Lower Unit. A detailed description of

these sediments, is available in Section 3.4.1.1-Regional Stratigraphy of the Application and the Depositional Framework of the Lower Dockum Group (Triassic), Texas Bureau of Economic Geology, No. 97, 1979, by McGowen. Applicant's NOI for Jim Bonner filed September 21, 2001.

30. The Upper Dockum Unit is very near the surface within the project boundary, covered only by a thin veneer of Quaternary sediments. The character of this unit, also known as the Chinle Formation, is a series of fluvial sediments. These sediments conformably overlie the Lower Dockum Unit and consist of red-green micaceous mudstones, interbedded with thin, discontinuous layers of siltstone and silty sandstones. The Chinle Formation is widespread in the southwestern United States.

(AR 00-079)

31. The Lower Dockum Unit represents sediments from a large, fluvial lacustrine basin. For any given portion of this basin, these sediments tend to be very homogenous and not subject to abrupt local changes. In outcrop, they consist of thick sequences of maroon-red-purple variegated mudstones with thin discontinuous layers of siltstones and silty sandstones. At the base of these thick mudstones, is a thin basal sand unit which is depositionally related to the Santa Rosa Sandstone. *Id.*

32. Permian- Permian sediments underlying the Triassic units in the project area assigned to the Artesia Group. Oil well logs from the New Mexico OCD in Hobbs, New Mexico, have provided sufficient data to identify the Dewey Lake Formation, Rustler Formation, and Yates Formation from the upper portion of this group. Geologic literature describes these Permian sediments to be gently dipping to

the east into the Permian Basin of Texas. *Id.*

33. Regional Structure- During the late Cretaceous to early Tertiary (65 million years ago) the Laramide Orogeny was causing uplift to the west along the Sacramento, Sangre de Cristo, and other ranges within the Rocky Mountains. This orogeny uplifted the region to its present position and supplied sediments for the Tertiary Ogallala associated with this Tertiary-aged uplift. However, because of the distance from tectonic centers and the minimal seismic activity, the eastern Chaves County is considered one of the more geologically stable regions within the United States. *Id.*

34. This region is also an area of moderate to low seismic activity. Data obtained from the National Geophysical Data Center of NOAA indicate a total of 102 observed earthquakes within a 250-km (155-mile) radius of the proposed site. There were no recorded earthquakes with a magnitude greater than 3.9 within 70 miles of the proposed site and no recorded seismic activity within a radius of 45 miles. *Id.*

35. Site Stratigraphy- A generalized cross-section presenting a view of what the rocks beneath Highway 380 shows the Triassic, older rocks, and even the younger Ogallala Formation gently dip off to the east into the Permian Basin of Texas. On top of the red beds rests a thin cover of alluvial material. *Id.*

36. Quaternary- The thickness of Quaternary alluvial deposits at the site varies from less than 10 feet to 35 feet. The upper portion of these sediments consists of fine to very fine, wind-blown yellow-brown sands. Below this sand are varying thickness of red-brown to yellow-brown siltstones and silty mudstones. Scattered

throughout these sediments are small chert pebbles and granitic cobbles derived from the Tertiary Ogallala Formation. *Id.*

37. Triassic- No exposures of Triassic rocks are present on the proposed site. Drilling was required to evaluate these sediments. This drilling has delineated two distinct units: the Upper Dockum (475 feet thick) and the Lower Dockum (700 feet thick). Upper Dockum sediments are in contact with the overlying Quaternary alluvium throughout the project area. *Id.*

38. Upper Dockum- This unit consists of variegated (red-brown-green) mudstones interbedded with reddish gray siltstones and reddish-gray-green sandy siltstones. The siltstones are micaceous (predominately muscovite), indicating they were part of a relatively active fluvial system capable of transporting material into the basin from distant source rocks. Mudstone and siltstone bodies are very lenticular and are found to pinch out abruptly. Accordingly, individual lithologies are not correlatable over significant distances. (thousands of feet). *Id.*

39. Lower Dockum- The Lower Dockum Unit has a completely different character from the upper unit. The lower unit represents a time of relatively quiet lacustrine deposition, which resulted in the accumulation of thick sequences of predominately mudstones, capable of performing as a geologic barrier to downward migration from the proposed landfill. These sediments are very homogenous, in contrast with the abrupt facies changes present in the more active Upper Dockum depositional system. These mudstones were consistently a moderate reddish brown color. *Id.*

40. Surface drilling did not encounter displacement or repeating of geological sequences that would be indicative of faulting. There is evidence of some surface dissolution of thin gypsum beds within Permian sediments near the Pecos River. These are small scale karst deposits which are common in evaporitic sequences and there is no evidence of collapse structures within Triassic sediments as a result of subsurface dissolution of Permian evaporites. *Id.*

41. Site Investigation Activities- In order to characterize the Triassic sediments on the site, extensive drilling was required. A total of 50 drill holes were completed in three separate drilling campaigns. Forty of these holes drilled within the project boundary. This drilling was performed with air because this drilling technique helped to confirm the presence (or lack of) groundwater in the subsurface. When dry sediments are being drilled, dust billows out of the hole and will fill the air for a hundred feet away from the drilling rig. If water is encountered, the dust stops immediately. All surface locations for these drill holes were surveyed. *Id.*

42. Lithology logs describing drill hole cuttings were prepared in the field and a suite of down-hole geophysical logs were run on each hole. The geophysical logs included gamma ray, thermal neutron, and caliper profiles. The electric logs provided lithologic information on the drill holes to supplement and verify the lithologic interpretations based on drill cuttings. The presence of any water in the hole would have been detected in these electric logs—and a scientific record of this water would be maintained. *Id.*

43. In addition to drill holes, several core holes were completed to obtain

geo-technical analyses. Mudstones from the Upper Dockum were found to have an average permeability of 2.45×10^{-7} cm/s, and the siltstones average 1.22×10^{-5} cm/s. The results of core analyses confirm the Lower Dockum to be a very impermeable unit (average permeability of 5.7×10^{-8} cm/s.) *Id.*

44. All drill holes were grouted with a mixture of bentonite and cement. To ensure that the holes were properly sealed, the mixture was injected into the hole through open-ended drill pipe – from the bottom to the top. A surface plug of cement was placed at the surface to prevent water from entering and contaminating the hole. *Id.*

E. HYDROLOGY

45. Regional Aquifers

In the region surrounding the proposed site, there are three geologic units that have produced groundwater, the Quaternary alluvium, the Tertiary Ogallala Formation and the Triassic. Minor amounts of groundwater have been produced from Quaternary and Triassic sediments; but the Tertiary Ogallala Formation is a major aquifer in southeastern New Mexico, West Texas, and several other western states. *Id.*

46. Ogallala Aquifer - The Ogallala Aquifer is the primary freshwater aquifer within the regional study area and serves as the principal source of groundwater in the Southern High Plains. The saturated thickness of the Ogallala Aquifer ranges from a few feet to approximately 300 feet in the Southern High Plains. Groundwater within the Ogallala Aquifer is typically under water table conditions, with a regional hydraulic gradient toward the southeast ranging from approximately 10 feet/mile to 15

feet/mile. The average hydrolic conductivity of the Ogallala Aquifer ranges from 1 foot/day to 27 feet/day. *Id.*

47. Triassic Aquifers – Regionally, the only aquifer within Triassic sediments is the Lower Dockum Aquifer. However, because the Upper Dockem is known to have permeable facies that locally produce low quantities of poor quality water, it is included in this section. *Id.*

48. Lower Dockum Aquifer – In the region of the proposed site, Lower Dockem sands (equivalent to the Santa Rosa Sandstone) provide limited groundwater production. Ten water wells developed in Triassic sediments within a 10-mile radius of the proposed site were identified and reviewed. This information was obtained from the New Mexico State Engineer's office and represents the results of six townships surrounding the proposed site (T11S through T13S and R29E through R30E). Four wells range in depth from 560 to 640 and have been completed within the past seven years. These wells would have penetrated the Lower Dockum sediments including the Santa Rosa Sandstone equivalent). Following is a description of these wells:

- RA-8577 was drilled to a depth of 614 feet in 1992. Its initial production was 4 gallons per minute.
- RA-9320 was drilled in 1996 to a depth of 560 feet. The estimated yield was 6 gallons per minute, however, the water was determined to not be potable. The well was plugged and abandoned on 11\25\96.
- RA-9568 was drilled to a depth of 640 feet in 1998. It was a dry hole and was plugged and abandoned on 8\14\98.

- RA-9670 was drilled in 1998 to a depth of 587 feet. The estimated yield was 2 gallons per minute. *Id.*

49. Upper Dockum Aquifer – There is no regional aquifer developed within Upper Dockum sediments. In local areas, recharge to the Upper Dockum is provided through vertical infiltration from overlying aquifers which are water-bearing units within the Ogallala Formation.

50. Quaternary Aquifers- Six of the wells shown on the Exhibit are shallow completions (100 feet or less) from the 1910's and 1940's. They are used in conjunction with windmills to supply water to livestock and wildlife. The numbers of these wells are RA-8585 through RA-8589 and RA-8363. *Id.*

51. Site Aquifers- All drilling within the project boundary encountered unsaturated sediments in the subsurface. The alluvium, the Upper Dockum and the Lower Dockum sediments have all been dry. After evaluating regional aquifers, the Triassic Park Waste Disposal Facility determined to be protective of two separate groundwater regimens. One of these regimens corresponds to the surface geology and one corresponds to the bedrock geology. *Id.*

52. Surface Geology Regime- The alluvial material in Chaves County (below the Caprock) is a thin veneer of Quaternary erosional debris. This material was eroded from the Ogallala Formation and spread across the land surface, its slope conforms to the topography. As previously mentioned, the land surface gently slopes to the west at approximately 40 to 50 feet per mile toward the Pecos River. *Id.*

53. Although the alluvial sediments at the site are dry, there are some wells producing water from alluvial sediments five miles to the southwest. To protect these distant wells, there will be a fence of four monitoring wells installed along the western boundary of the proposed waste management units. These wells will be developed in dry alluvial sediments to ensure that no contaminated fluids are introduced into this unit. *Id.*

54. Bedrock Geology Regime- This regime includes the traditional aquifers contained on the Tertiary Ogallala Formation and the Triassic sediments. Because the bedrock dips gently to the east into the Permian Basin of Texas, in order to be protective of these units, monitoring wells will installed down-gradient-or to the east of the waste management units. It is important to remember that the site located two miles away from and several hundred feet below the base of the Ogallala Formation, had no groundwater has been encountered in any of the drilling into Triassic sediments within the site boundary. *Id.*

55. Ogallala Aquifer- The Ogallala Formation, which forms the basal portion of the Caprock, is a major regional aquifer. The single most important sitting criterion for the Triassic Park Waste Disposal Facility was to find a location physically away from and below this aquifer. In the setting, the simple fact that water does not flow uphill will prevent any potential site water from reaching this aquifer. *Id.*

56. Upper Dockum Aquifer- (Perched Water)- Several springs are present where the Ogallala Formation crops out, two miles east of the Facility site, along the 200-foot high Caprock escarpment. These springs are present where the Ogallala sands

unconformably overlies impermeable Dockum mudstones and claystones and the groundwater moves laterally to the surface. Where these water-bearing Ogallala sands are in contact with more permeable units of the Upper Dockum, saturation of these underlying sediments occurs. The result is the formation of a groundwater divide east of the proposed site. The majority of the groundwater entering the Upper Dockum flows to the east, conforming to the regional dip of the unit. There is also an intermittent flow component which slopes away from the unconformable contact, resulting in scattered perched water. Applicant encountered three holes with perched water and one hole was encountered southwest of the site. The reader is referred to Section 3.6.2.2 Upper Dockum-Perched Water of the Application for more details on this subject. *Id.*

57. Preliminary water quality data were obtained from limited chemical analyses on a sample of perched water outside of the proposed site boundary. These preliminary data indicate that water from the Upper Dockum is of low volume and poor quality. The most significant parameter is 4,920 mg/L total dissolved solids (TDS). Water with TDS values of greater than 5,000 mg/L is considered to be unfit for human consumption. *Id.*

58. Lower Dockum Aquifer- (Uppermost Aquifer)- The uppermost aquifer at the site is considered to be the Lower Dockum Unit, because the Ogallala Aquifer is not present and the Upper Dockum is unsaturated. The EPA has defined the uppermost aquifer as the geologic formation, group of formations, or part of a formation that is the aquifer nearest to the ground surface capable of yielding a significant amount of

groundwater, preliminary drilling adjacent to the site area and in the region has found this unit to be water-bearing and to possess consistent hydrologic characteristics. *Id.*

59. Two holes (WW-1 and WW-2) were drilled north and south of the project boundary to approximately the base of the Triassic section and encountered water from the Lower Dockum Aquifer. These holes were drilled off the site to avoid violating the integrity of the geologic barrier presented by the Lower Dockum mudstones. WW-1 was completed to a depth of 820 feet and WW-2 was completed to a depth of 710 feet. *Id.*

60. Two sources of data have been used to evaluate water quality data for the Lower Dockum: 1) United States Geological Survey (USGS) Multistation Analyses and 2) site specific analyses. Using these two sources, three wells in the region could be confirmed as penetrating Lower Dockum sediments. TDS values from these wells ranged from 11,000 mg/L to 38,400 mg/L. These values indicate that the water quality of the Lower Dockum is very low. The extremely high TDS values are indicative of long formation retention times, which reflects low groundwater flow and low permeability conditions within the Lower Dockum Aquifer. *Id.*

G. PERMIT PART 1 / GENERAL PERMIT CONDITION

61. Draft Permit Part I sets forth the standards of condition for the owner/operator of a hazardous waste, treatment, and/or disposal facility (TSDF) is required to meet in order to manage, store and dispose hazardous waste in a manner protective of human health and the environment under the New Mexico Hazardous

Waste Act (HWA) and RCRA. Corser (TR Pgs. 189-199) NOI of Corser filed September 21, 2001. (NMED Hearing Exhibit A).

62. The Applicant has committed to comply with the standards and conditions of Permit Part I. Corser (TR Pgs. 189-199) NOI of Corser filed September 21, 2001. (NMED Hearing Exhibit A).

63. The testimony of the Applicant and the NMED indicate that the standards and conditions of Permit Part I satisfy applicable requirements of 20NMAC 4.1.500. Corser (TR Pgs. 189-199) NOI of Corser filed September 21, 2001. (NMED Hearing Exhibit A).

64. There is no adverse testimony contesting that Draft Permit Part 1 satisfies applicable requirements of 20NMAC 4.1.500. Corser (TR Pgs. 189-199) NOI of Corser filed September 21, 2001. (NMED Hearing Exhibit A).

65. The Part 1 Permit general permit conditions satisfies applicable regulations of 20 NMAC 4.1.500. Corser (TR Pgs. 189-199) NOI of Corser filed September 21, 2001. (NMED Hearing Exhibit A).

H. PERMIT PART 2 / GENERAL FACILITY CONDITIONS

66. Draft Permit Part 2 contains the standards and conditions governing general facility requirements for the facility. AR 01-090

67. The Applicant provided testimony and exhibits at the hearing indicating that Draft Permit Part 2 satisfies the applicable regulations of 20 NMAC 4.1.500. Corser (TR Pgs. 189-199) NOI of Corser filed September 21, 2001. (NMED Hearing Exhibit A).

68. The NMED testified and provided exhibits at the hearing indicating that Draft Permit Part II satisfies applicable regulations of 20 NMAC 4.1.500. (NMED Hearing Exhibit "A")

69. There was no testimony or exhibits contesting that Draft Permit Part 2 satisfied applicable requirements of 20 NMAC 4.1.500.

70. Draft Permit Part 2 general facility conditions satisfies applicable regulations of 20 NMAC 4.1.500. Corser (TR Pgs. 189-199) NOI of Corser filed September 21, 2001. (NMED Hearing Exhibit A).

I. PERMIT PART 3 / HAZARDOUS WASTE STORAGE AND CONTAINERS

71. Draft Permit Part 3 contains the standards and conditions governing general facility requirements for the facility.

72. The Applicant provided testimony and exhibits at the hearing indicating that Draft Permit Part 3 satisfies the applicable regulations of 20 NMAC 4.1.500. Corser (TR Pgs. 189-199) NOI of Corser filed September 21, 2001. (NMED Hearing Exhibit A).

73. The NMED testified and provided exhibits at the hearing indicating that Draft Permit Part 3 satisfies applicable regulations of 20 NMAC 4.1.500. (NMED Hearing Exhibit "A")

74. There was no testimony or exhibits contesting that Draft Permit Part 3 satisfied applicable requirements of 20 NMAC 4.1.500.

75. Draft Permit Part 3 general facility conditions satisfies applicable regulations of 20 NMAC 4.1.500. Corser (TR Pgs. 189-199) NOI of Corser filed September 21, 2001. (NMED Hearing Exhibit A).

J. PERMIT PART IV / HAZARDOUS WASTE STORAGE AND TREATMENT

IN TANKS

76. Draft Permit Part 4 contains conditions for storage and treatment of hazardous waste in tanks at the facility. (AR 01-090)

77. The Applicant provided testimony and exhibits at the hearing indicating that Draft Permit Part 4 satisfies the applicable regulations of 20 NMAC 4.1.500. Corser (TR Pgs. 189-199) NOI of Corser filed September 21, 2001. (NMED Hearing Exhibit A).

78. The NMED testified and provided exhibits at the hearing indicating that Draft Permit Part 4 satisfies applicable regulations of 20 NMAC 4.1.500. (NMED Hearing Exhibit "A")

79. There was no testimony or exhibits contesting that Draft Permit Part 4 satisfied applicable requirements of 20 NMAC 4.1.500.

80. Draft Permit Part IV general facility conditions satisfies applicable regulations of 20 NMAC 4.1.500. Corser (TR Pgs. 189-199) NOI of Corser filed September 21, 2001. (NMED Hearing Exhibit A).

K. PERMIT PART 5 / TREATMENT IN THE SURFACE IMPOUNDMENT

81. Draft Permit Part 5 contains conditions for treatment by evaporation of hazardous waste in the surface impoundment at the facility. (AR 01-090)

82. The Applicant provided testimony and exhibits at the hearing indicating that Draft Permit Part 5 satisfies the applicable regulations of 20 NMAC 4.1.500. Corser (TR Pgs. 189-199) NOI of Corser filed September 21, 2001. (NMED Hearing Exhibit "A").

83. The NMED testified and provided exhibits at the hearing indicating that Draft Permit Part 5 satisfies applicable regulations of 20 NMAC 4.1.500. (NMED Hearing Exhibit "A").

84. There was no testimony or exhibits contesting that Draft Permit Part 5 satisfied applicable requirements of 20 NMAC 4.1.500.

85. Draft Permit Part 5 general facility conditions satisfies applicable regulations of 20 NMAC 4.1.500. Corser (TR Pgs. 189-199) NOI of Corser filed September 21, 2001. (NMED Hearing Exhibit A).

L. PERMIT PART 6

86. Draft Permit Part 6 contains conditions for the disposal of hazardous waste at the landfill at the facility. (AR 01-090)

87. The Applicant provided testimony and exhibits at the hearing indicating that Draft Permit Part 6 satisfies the applicable regulations of 20 NMAC 4.1.500. Corser (TR Pgs. 189-199) NOI of Corser filed September 21, 2001. (NMED Hearing Exhibit A).

88. The NMED testified and provided exhibits at the hearing indicating that Draft Permit Part 6 satisfies applicable regulations of 20 NMAC 4.1.500. (NMED Hearing Exhibit "A")

89. There was no testimony or exhibits contesting that Draft Permit Part 6 satisfied applicable requirements of 20 NMAC 4.1.500.

90. Draft Permit Part 6 general facility conditions satisfies applicable regulations of 20 NMAC 4.1.500. Corser (TR Pgs. 189-199) NOI of Corser filed September 21, 2001. (NMED Hearing Exhibit A).

M. PERMIT PART 7 /Groundwater Monitoring Waiver and Vadose Zone

Monitoring System

91. The groundwater monitoring requirements for the permit require monitoring that is capable of detecting a release to the uppermost aquifer beneath the regulated unit unless a groundwater monitoring waiver is granted. (40 CFR 264.90)

92. After initial site hydrologic and geologic characterization, the Applicant determined a groundwater monitoring waiver and a vadose zone monitoring system might satisfy the regulatory requirements, be appropriate for the site and protect human health and the environment. (Applicant's NOI dated September 21, 2001; testimony of Pat Corser and Jim Bonner; Bonner, Tr. Pg. 145, ln 8-25; Pg. 146, Ins. 1-15)

93. The Applicant used the services of a geo-technical engineer and a geologist to perform the analysis and calculations needed to support a groundwater monitoring waiver. The NMED required a multi-med transport model and enhanced the migration times from those required by the regulations. (NMED Hearing Exhibit "A")

94. The Triassic Park Waste Disposal Facility was granted a Groundwater Monitoring Waiver by the Hazardous and Radioactive Materials Bureau (HRMB) of the

New Mexico Environment Department (NMED) for monitoring requirements of the uppermost aquifer. This waiver is supported by substantial evidence.

95. Investigative activities at the proposed site determined that the uppermost aquifer was the Lower Dockum Aquifer. Geologic literature research and site drilling activities confirmed the site is underlain by a 600-650 foot sequence of unsaturated, low permeability (5.7×10^{-8} cm/s) mudstones. *Id.* Draft Permit Attachment H AR 01-090.77.

96. There is no dispute that for purposes of applying the groundwater monitoring waiver 30 CFR 264.90 (for the Uppermost Aquifer _____ within the Lower Dockum 6700 feet below the surface).

97. There is no dispute that for purposes of applying the groundwater monitoring waiver for the Uppermost Aquifer is the sediment of the formation of the Lower Dockum which is a depth of 600-700 feet below the surface. 40 CFR 264.90

98. The Applicant correctly established the likely depth of the Santa Rosa Aquifer within the Lower Dockum of 600 feet or deeper based on review of logs. (Bonner, Tr. Pg. 139, ln 1-6)

99. The Applicant used the multi-med model for calculating transport migration through the Lower Dockum as required by the NMED. (Marley, Tr. Pg. 1021, lns 2-25; Pgs. 1022-1025, ln 10)

100. The Applicant used conservative assumptions that maximize the rate of liquid migration through the Lower Dockum for purposes of performing the

calculations necessary to support the groundwater monitoring waiver. The conservative assumptions used for this calculation include:

- a. Use of saturated flow assumption; (Bonner, Tr. Pg.145, Ins. 18-20)
- b. Use of infiltration rates of .84 inches per year; (Corser, Tr. Pg.1023, In 10)
- c. Use of the largest permeability calculations determined based on site sampling and a laboratory analysis of core samples. (Bonner, Tr. Pgs. 142-148, In 6)

101. The regulated unit at the site for purposes of performing the migration analysis is the landfill; since the landfill was required to be excavated into the Lower Dockum unit, the Applicant used the proper assumption of travel time through the Lower Dockum for purposes of the groundwater-monitoring waiver. (Bonner, Tr. Pg. 142, Ins. 7-18; Corser, Tr. Pg. 1022, Ins. 1-10; Tr. Pg. 1023, Ins. 1-5)

102. The migration transport analysis of the Applicant, approved by the NMED, for migration transport in the Lower Dockum beneath the facility using conservative estimates satisfies the RCRA requirements of sixty (60) years(based on closure and post-closure), the NMED requirements of eight hundred (800) years and is protective of human health and the environment. *Id.* 40CFR 264.90(a)(3)

103. There is no requirement that the Applicant demonstrate that lateral migration transport times using conservative estimates establish that lateral migration will not reach a possible saturated zone between the Upper and Lower Dockum which where such saturated zone does not constitute the upper most aquifer beneath the

facility as required for groundwater monitoring waiver. (Corser, Tr. Pg. 1021, Ins. 2-9)

104. The Applicant performed a transport model migration analysis to the location where the Upper and Lower Dockum interface has demonstrated saturated zone thirty-six hundred lateral (3600) feet from the site. (Bonner, Tr. Pg. 145, Ins. 16-24) The permeability analysis of the Applicant is established by a preponderance of the evidence because there is no evidence that the hydraulic permeability proposed by George Rice is based upon geological characteristics. Mr. Rice assumes a homogenous pathway following the hydraulic gradient where if there were any pathway following the hydraulic gradient, it is likely to be non-homogenous, thereby slowing the migration rate. The Applicant's transport model was reviewed and approved by the NMED as a reasonable / scientific based model based on geological and geo-technical analysis using assumed saturated soil conditions and hydraulic assumptions to provide a conservative estimate of the migration. Based upon the site geology and hydrology, the Applicant's vadose zone monitoring is an appropriate groundwater monitoring system that satisfies applicable regulations of 20 NMAC 4.1.500. (Bonner, Tr. Pg. 158, Ins. 19-25; Pg. 159, Ins. 1-25; Pg. 160, Ins. 1-8; Pg. 158, Ins. 19-25; Pg. 159, Ins. 1-25; Pg. 160, Ins. 1-8)

105. The migration transport model of the Applicant for Lower Dockum migration, was reviewed and approved by NMED and it was established by a preponderance of the evidence. (Bonner, TR. Pg. 145, Ins. 16-24)

106. There is no need to have shallow vadose zone monitoring wells adjacent to the landfill during Phase 1A operations. All alluvial sediments will be stripped away from the sides of the landfill for a lateral distance of 16 feet and any potential fluid movement will be captured in a surface draining ditch. No monitoring well would give the amount of information that will be available from exposing the entire unit. However, during subsequent operational phases that would require complete lining of the Phase 1 landfill and emplacement of a clay berm adjacent to the alluvial sediments, the decision to install shallow vadose zone monitoring wells will be re-examined. (AR 01-090, AR 00-079)

107. Two types of flow models were used in examination of potential contaminant transport at the site. Because sediments at the site are unsaturated, the first was an unsaturated flow model. This indicated that travel times from a hypothetical leak through the Lower Dockum mudstones to the aquifer would be on the order of millions of years. *Id.*

108. The second modeling approach used much more conservative set of site conditions, including total saturation of the sediments at the site. Even with these extremely conservative parameters, the indicated travel times through the Lower Dockum mudstones were in the thousands of years. *Id.*

109. Contaminant transport modeling demonstrated that the thick sequence of Lower Dockum mudstones act as a sufficient aquitard, that when combined with proposed engineering barriers in the regulated units, will prevent migration of fluids to the uppermost aquifer. In lieu of monitoring the Lower Dockum, Gandy-Marley, Inc.

will install a vadose zone monitoring system which will detect potential leaks more efficiently and in a more timely manner than monitoring wells installed in the deeper Lower Dockum Aquifer. *Id.*

110. The NMED determination to grant the groundwater-monitoring waiver is supported by substantial evidence. The testimony of George Rice is insufficient to support the reversal of the NMED decision to grant the groundwater waiver. (Rice, Tr. Pg. 470, Ins. 11-19; CURE Notice of Intent dated September 21, 2001; Exhibit 2) Mr. Rice is not a geologist or geo-technical engineer and does not provide substantial evidence to dispute the site geology characterization of the Applicant. Mr. Rice did not and cannot review well logs, which were used by the Applicant to confirm geologic determination. TRU2, Pg. 470/LN 11-19

111. There is no substantial evidence indicating that fractures are likely to exist in the Lower Dockum beneath the facility that would make Applicant's migration analysis incorrect. (Bonner, Tr. Pg. 145, ln 16-24) Absent demonstration of fractures, Applicant's Lower Dockum migration model was accepted by Mr. Rice. (Rice, Tr. Pg. 1158, Ins. 15-25)

112. George Rice did not present any evidence supporting his contention that the migration transport model to the Lower Dockum did not support the groundwater monitoring waiver because of the possibility of fractures or faults. Mr. Bonner's testimony about use and interpretation of oil well to assess depth and composition of the Lower Dockum, including Triassic mudstones and the elasticity of this geology demonstrate by substantial evidence that there were no fractures that would increase the

migration through the Lower Dockum to an extent that would modify the migration times enough to deny the groundwater waiver. (Bonner, Tr. Pgs. 124-198)

113. Vadose Zone Monitoring Systems- Due to the long contaminant transport travel times to reach the uppermost aquifer, a shallow monitoring system has been designated to provide meaningful information on potential releases in a timely manner. This approach will use detection systems and monitor wells in the unsaturated sediments underlying and adjacent to waste management units. By detecting potential contaminants sooner, these systems can help to initiate correct actions and make the proposed site more protective of human health and the environment. *Id.*

114. The sump system will provide a method for measuring and recording the volume of liquid removed. Drainage materials will meet the minimum drainage requirements per the specifications. Sump design, filter fabric selection, floor pipe design, pump design, disposal system design, and action leakage rate (ALR) calculations involving removal of leachate flow from a 1-mm² hole/acre are discussed in the engineering report (Volume III). All pumpable liquid in the sump will be removed in a timely manner to prevent the head on the primary liner from exceeding 12 inches. *Id.*

115. Leak Detection and Removal System (LDRS)-The design of the LDRS is similar to the design of the LCSR. The LDRS will be capable of detecting, collecting, and removing leaks of hazardous constituents through areas of the primary liner during the active life and post-closure care period. A filtered LDRS layer consisting of a geocomposite will be constructed below the primary geomembrane. Within the LDRS

layer will be the LDRS piping, which will be used to detect and remove liquid from between the primary and secondary liners. The piping arrangement is shown on Drawing 18 in Volume III. *Id.*

116. As demonstrated in the engineering report (Volume III), the LDRS will be (1) constructed with a bottom slope of one percent or more; (2) constructed of a geo-composite with a hydraulic conductivity that exceeds 1×10^{-2} cm/sec; (3) constructed of materials that are chemically resistant to the waste managed in the landfill and the leachate expected to be generated; (4) of sufficient strength and thickness to prevent collapse under pressure exerted by overlying wastes, waste cover material, and equipment used at the landfill; and (5) designed and operated to minimize clogging during the active life and post-closure care period. *Id.*

117. In addition, the sump and liquid removal methods are designed to be of sufficient size to collect and remove liquid from the sump and prevent liquid from backing up into the drainage layer (see ALR calculations in Volume VI). A method will be provided for measuring and recording the volume of liquid present in the sump and liquid removed. All pumpable liquid in the sump will be removed in a timely manner to maintain the head on the secondary liner at less than 12 inches. The pump for the LDRS sump is located at the sump's low point so that pumpable liquids can be removed to the maximum extent possible. *Id.*

118. The vadose zone monitoring sump serves as a detection system for leaking in the secondary LDRS system. Located directly beneath the LDRS sump, leakage through the secondary liner system will flow into the vadose sump, allowing it

to be detected and removed. The vadose pipe and gravel arrangement is similar to the LCRS and LDRS arrangements. Drawings 16 through 18 in Volume III show the vadose zone in the sump. *Id.*

119. In the order to monitor for potential releases from the individual units, the Facility will install a series of vadose zone monitoring systems at the site. The vadose zone monitoring system will consist of two components. The first will consist of vadose zone sumps in the landfill and the evaporation ponds. The second component will be a series of vadose zone wells downgradient of the facilities. The intent of the sump vadose monitoring system is to provide an immediate indication if there is any leakage from the double composite liner system. Leakage from the secondary liner will be intercepted by the vadose zone sump monitoring system, which will be checked daily for the presence of liquids. The vadose zone monitoring wells are intended to detect any water flowing at two locations in the subsurface. The first is at the contact between the Upper and Lower Dockum and the second is with the alluvial deposits that overlie the Upper Dockum in portions of the site. *Id.*

120. The design of the vadose zone sump monitoring system is shown in the design Drawing 15 through 19 in Volume III. It includes a 60 mil HDPE liner system below the bottom of the secondary liner system in the area of the sump. The vadose zone liner system is limited to an area directly beneath the sump, as this is the area expected to have the most liquids ponded for the longest period of time. Above the HPDE liner in the vadose zone sump, a drainage gravel surrounds a side slope riser

pipe that extends into the sump. The side slope riser pipe allows a pump to be installed in the sump to remove accumulated liquids. *Id.*

121. The vadose zone sump monitoring system, shown in the design drawings (Volume III) and described above, is expected to be a much more immediate indicator of leakage from the landfill than any other type of groundwater monitoring system. Given the geologic and hydraulic conditions at the base of the landfill (unsaturated Upper Dockum siltstones and claystones), and fluids leaking from the landfill will migrate vertically with limited lateral dispersion and will be very difficult to intercept and detect. Since each cell is graded so that leachate will collect in the sump, liquids will be present in this area for the longest period of time, resulting in the sump area having the highest hydraulic head on the liner system. A vadose liner below the sump areas will indicate quickly if the liquids are escaping from the liner system. The vadose zone sump will not only provide an indication that the LDRS sump is leaking, but will also provide access to remove the leakage and minimize head buildup in the sumps and in liners above until the source of the leakage is found. The vadose sumps for the landfill and evaporation ponds will be monitored for the presence of liquids whenever the primary or secondary sumps are monitored. *Id.*

122. Details of the location, depth and construction for the vadose zone monitoring system wells are presented in (Appendix N, Volume II). In addition, specific procedures for monitoring and sampling the sumps or wells and the required procedures for analyzing the wells collected liquid are presented in the Vadose Zone Monitoring System Plan. *Id.* In addition to the vadose zone monitoring wells at the

contact between the Upper and Lower Dockum Units, a series of shallow vadose zone monitoring wells will be installed in the alluvial sediments west of the waste management units. The purpose of this fence of monitoring wells is to ensure that the Facility is protective of any water in the alluvium and will have no impact on the existing wells currently producing from these sediments five miles west of the facility. *Id.*

123. These wells would be located on a north-south fence, between the western waste management units (Evaporation Ponds, Truck Wash Unit and Maintenance Shop) and the Stormwater Detention Basin. These wells would be spaced at approximately 330-foot intervals along this fence. In the unlikely event of a release, these locations allow the Facility to respond quickly in order to implement remedial actions well before any liquids reach the property boundary. *Id.*

124. Applicant agrees to install additional wells as NMED recommends based on the hearing. This agreement is based on an understanding that on-site and off-site monitor wells will be recommended to assess the Upper Dockum or Upper Dockum and Lower Dockum interface. One boring beneath the regulated unit will also be installed to a depth of 100 or so feet above the anticipated saturated zone in the Lower Dockum. These wells/borings are acceptable to Applicant.

125. According to 40 CFR 260.10, an aquifer is "a geological formation, group of formations, or a part of a formation capable of yielding a significant amount of ground water to wells or springs. There is no dispute that for purposes of applying

the groundwater monitoring waiver 40 CFR 264.90, the Uppermost Aquifer is the Santa Rosa within the Lower Dockum 600-700 feet below the surface).

**N. PERMIT PART 8 / CLOSURE AND POST-CLOSURE CARE
CONDITIONS FOR EACH PERMITTED AND UNIT AT THE FACILITY**

126. Draft Permit Part 8 contains closure and post-closure care conditions for each permitted unit at the facility. Also included are financial responsibility requirements for the permitting for the closure and post-closure care. In numerous communications, transmittals and presentations the Applicant provided documentation of closure and post-closure plans for review (AR 00-066; AR 00-067; AR 00-057; AR 00-034; AR 00-025; AR 00-019; AR 00-012).

127. Each primary unit at the facility has a section devoted to closure of the specific unit. Draft Permit Attachment "O" contains closure plan for each unit. Draft Permit attachment "L" Engineering Report Section 3.1.5, final cover and Draft Permit Attachment "O" Section 8.1.6 provide detail for closure and cover of the landfill Application Draft. (AR 01-090)

128. Post-closure care requirements are specified in Draft Permit Attachment "P", Post-closure, Section 8.2, post-closure activity. *Id.*

129. Draft Permit Part 8 requires that closure plans be updated under numerous circumstances or requirements. Further, if the activities in the units change, the closure plan for that unit must be modified. *Id.*

130. The testimony of Pat Corser, and the exhibits in the record, including the Permit Application with the referenced attachments containing closure and post-closure plans, the Draft Permit with references to attachments containing closure and post-

closure plans, and the testimony of the NMED employees indicate that the closure plan and post-closure plans satisfy applicable requirements of 20 NMAC 4.1.500. Corser, Pg. 199, Ins. 3-24; Corbane, Tr. Pg. 897, Ins. 10-13; NMED Hearing Exhibit "A"; Application attachments AR 97-037; Draft Permit AR 01-090.

131. Based on the closure and post-closure plans, cost estimates were prepared by both the Applicant and the NMED. AR 00-065; 00-072; 00-074; 00-077; 00-082; 00-083; 00-084; 00-0085; Notice of Filing by Applicant October 11, 2001; Notice of Filing NMED October 24, 2001 "LF CAP"

132. The NMED and the Applicant followed regulatory requirements for obtaining and evaluating cost estimates for closure and post-closure. *Id.*

133. The NMED final cost estimates for closure and post-closure are supported by substantial evidence. *Id.*

134. Based on the testimony of Paul Robinson, an additional cost for modifying the design of the landfill cover is appropriate. (Robinson, Tr. Pg. 113, Ins 1-6) This additional cost should be included as a condition in the final Permit.

135. The cost estimates of the Applicant and the NMED include appropriate indirect costs. The allegations of lack of indirect costs made by Mr. Robinson are not supported by the record. (Corser, Tr. Pg. 207, Ins. 10-25; Pgs. 208-215) Notice of Filing by Applicant October 11, 2001; (Cobraine, Tr. Pg. 903, ln. 13 through Pg. 905, ln 19; NMED Hearing Exhibit "A".)

136. The use of third party estimates complies with applicable regulations of 20 NMAC 4.1.5001; in particular: CFR 264.142.

137. The closure plan and post-closure plan cost estimates are cost estimates is based upon the cost to the owner/operator hiring a third party to close the facility. The third party estimates used by the Applicant and NMED do not involve a parent or subsidiary of the owner or operator. The cost estimates of NMED are supported by substantial evidence and the method used to obtain the cost estimates complies with applicable regulations. (Corser, Tr. Pg. 207, Ins. 10-25; Pgs. 208-215) Notice of Filing by Applicant October 11, 2001; (Cobraine, Tr. Pg. 903, ln. 13 through Pg. 905, ln 19; NMED Hearing Exhibit "A".)

138. The design drawings and contract specifications for closure and post-closure are sufficient to allow contracts to be issued to third parties. (AT 94-012) Pat Corser has experienced professional licensing in preparing design drawings and construction specifications for bid by third-parties. (Corser, Tr. Pg. 185, Ins. 5-25) Mr. Cobraine has experience as a licensed contractor in reviewing design drawings and construction specification. (Cobraine, Tr. Pg. 893, Ins. 2-25) Mr. Robinson is not a professional engineer or licensed contractor and does not have experience, training, or qualifications in reviewing design drawings and construction specifications to determining sufficiency for third party bid or cost estimate. (Robinson, Tr. Pg. 672, Ins. 9-17; Exhibit 1 attached to CURE's NOI dated September 21, 2001)

O. PERMIT PART 9 / PERMIT CONDITIONS THAT ENSURE APPROPRIATE RESPONSE FOR RELEASE

139. Draft Permit Part 9 contains permit conditions that ensure appropriate response in the event of a release of hazardous waste or constituents from a regulated unit at the facility. (AR 01-090)

140. The Applicant provided testimony and exhibits at the hearing indicating that Draft Permit Part 9 satisfies the applicable regulations of 20 NMAC 4.1.500.

(Cudney, Tr. Pg. 90-99, ln 15; Westerman, Tr. Pgs. 110-113, ln 12.)

141. The NMED testified and provided exhibits at the hearing indicating that Draft Permit Part 9 satisfies applicable regulations of 20 NMAC 4.1.500. (Pullen, Tr. Pg. 797, lns. 5-13; NMED Hearing Exhibit "A")

142. There was no testimony or exhibits contesting that Draft Permit Part 9 satisfied applicable requirements of 20 NMAC 4.1.500.

143. Draft Permit Part 9 general facility conditions satisfies applicable regulations of 20 NMAC 4.1.500. (Corser, Pg. 199, lns. 3-24; Corbane, Tr. Pg. 897, lns. 10-13; NMED Hearing Exhibit "A"; Application attachments AR 97-037; Draft Permit AR 01-090.)

P. PERMIT PART 10 /CONDITIONS FOR NECESSARY CORRECTIVE ACTION

144. Draft Permit Part 10 contains conditions for necessary corrective action for hazardous waste or hazardous constituent releases that occur at Solid Waste Management Units (SWMUS) and areas of concern (AOCS) at the facility. (AR 90-01)

145. The Applicant provided testimony and exhibits at the hearing indicating that Draft Permit Part X satisfies the applicable regulations of 20 NMAC 4.1.500. (Corser, Tr. Pg. 199, lns. 16-24.)

146. The NMED testified and provided exhibits at the hearing indicating that Draft Permit Part 10 satisfies applicable regulations of 20 NMAC 4.1.500. (Pullen, Tr. Pg. 797, lns. 5-13.)

147. There was no testimony or exhibits contesting that Draft Permit Part 10 satisfied applicable requirements of 20 NMAC 4.1.500.

148. Draft Permit Part 10 general facility conditions satisfies applicable regulations of 20 NMAC 4.1.500. (Corser, Tr. Pgs. 189-191, ln 21)

Q. Endangered Species

149. The testimony of James Bailey established that the habitat range for the Lesser Prairie Chicken consists of One million nine hundred seventy six thousand three hundred and forty acres (1,976,340). (Exhibit 1 attached to CURE's Notice of Intent filed September 21, 2001)

150. The New Mexico Game and Fish Department prepared a Long Range Plan for the Management of the Lesser Prairie Chickens of New Mexico 2002-2006 dated July 2001. This document was reviewed by Mr. Bailey and Mr. Merino. (Filed September 21, 2001) In response to the request for consultation by Steve Pullen of the NMED and the New Mexico Game and Fish Department states "although not acknowledged as occurring within the proposed project site, the Department believes that the implementation of the fencing and bird netting mitigation measures already committed to in the Draft Permit and recommended in these comments would be sufficient to protect the Lesser Prairie Chicken from impacts associated with this project. *Id.*

151. The proposed GMI facility is at the outer edge of this habitat and is marginal habitat. (Baily, Tr. Pg. 597, lns. 14-17).

152. The total acreage within the proposed facility which contains the type of habitat needed for the Lesser Prairie Chicken is less than one hundred (100) acres. (Marley, Pg. 1001, Ins. 16-18).

153. The total potential impact from the facility on the Lesser Prairie Chicken habitat is that the facility might remove less than one hundred (100) acres of marginal habitat at the edge of the entire habitat of range of about two million acres (2,000,000). (CURE Hearing Exhibit 21).

154. The species of concern identified by various witnesses are the Lesser Prairie Chicken and the Sand Lizard, neither of which are listed under the Endangered Species Act. (Merino, Tr. Pg. 70, Ins. 3-18 and Direct Testimony of Joe Merino filed with Applicant's Notice of Intent filed September 21, 2001).

155. There is no jurisdictional, regulatory or factual basis for conditioning the permit based on Federal endangered species concerns.

156. The only condition on the permit that is justified by the record, is the condition of the required fencing as set forth in the Game and Fish letter and was agreed to by the Applicant.

157. This is no substantial evidence that endangered species concerns require delay, denial or condition of the permit.

Clarification of 2.3.1

158. There were two pieces of evidence on this issue at the public hearing. The NMED presented an expert on the waste acceptance plan, who indicated that from a waste acceptance stand point there would be no difference between waste generated in

Mexico if imported by a United States “generator” and then delivered to the Triassic Park site or waste generated within the United States by a “generator” located in the United States and then delivered to the facility. (Walker, Tr. Pg. 858 -859).

159. All of the waste must be required to satisfy the waste acceptance criteria, or it would not be accepted at the facility. *Id.*

160. Based on all of the technical evidence from the NMED, there is no basis for interpreting 2.3.1 to exclude waste which is properly imported into the United States and delivered to the site by a United States “generator”. The other evidence is the legal authority which the hearing officer can take judicial review of. (Applicant's Notice of Intent filed September 21, 2001, Exhibits filed with testimony of Pat Corser).

161. This authority provides the basis for establishing the La Paz Agreement and the import requirements of the RCRA as regulated by the EPA.

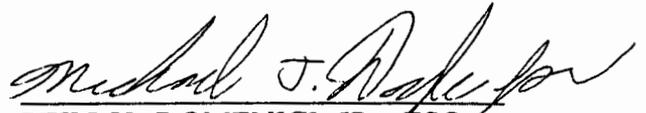
162. This legal authority indicates that there are strong procedures in place governing the import of hazardous waste.

163. These regulations clearly indicate that the importer of the waste cannot be the disposal facility. The importer of the waste becomes the United States “generator” of the waste and thus meets all of the requirements of the “generator”.

164. If there is any problem with the waste, or any issues that need to be resolved, the “generator” is in the position of any other United States “generator” with the responsibility to provide information on the waste, to provide access to the analysis on the waste, to provide processing information on the waste and to take possession of the waste if it is rejected from the disposal facility. *Id.*

Respectfully submitted,

DOLAN & DOMENICI, P.C.

A handwritten signature in cursive script, appearing to read "Pete V. Domenici, Jr.", written in black ink.

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III. APPLICANT'S PROPOSED CONCLUSIONS OF LAW

A. Application and issuance of Draft Permit

1. The Applicant's application complied with all applicable 20 NMAC 4.1.500 regulations pertaining to applications for permit to treat, store and dispose of hazardous waste.
2. The NMED complied with all applicable 20 NMAC 4.1.500 and 40 CFR Parts 264, and 270 regulations in issuing the draft permit.

B. Public Notices

3. The NMED complied with all applicable 20 NMAC 4.1.901 permit procedures including the notice requirements of 20 NMAC 4.1.901 C. (1)(3)(4) and 20 NMAC 4.1.901 (D), and (E)

C. Hearing and Pre-Hearing Procedures

4. The NMED complied with 20 NMAC 4.1.901 (A) (5) in issuing a Hearing Determination.
5. The Hearing Clerk complied with all provisions of 20 NMAC 1.4.202 in issuing the Notice of Docketing.
6. The Hearing Clerk complied with 20 NMAC 1.4.203 (A) in setting the Hearing Date.
7. The Hearing Clerk complied with all 20 NMAC 1.4.203 (B)(1) requirements concerning the contents of the Notice of Hearing.
8. The Hearing Clerk complied with all 20 NMAC 1.4.203 (B)(2) requirements concerning service of the Notice of Hearing and served it on all parties entitled to receive such service.

9. The Hearing Officer properly invoked and exercised her powers under 20 NMAC 1.4.112(B)(6) in holding a pre-hearing conference and ruling on pre-hearing motions.

D. Hearing and Public Comment

10. All parties were given an adequate opportunity to present testimony at the hearing as allowed under 20 NMAC 1.4.301 and 20 NMAC 1.4.401.

11. All parties were given an adequate opportunity to cross-examine witnesses at the hearing as allowed under 20 NMAC 1.4.402(B).

12. All parties were given an adequate opportunity to present rebuttal testimony as allowed under 20 NMAC 1.4.401.

13. The general public and all interested persons were given an adequate opportunity to provide statements or oral testimony about the Draft Permit as allowed under 20 NMAC 1.4.401.

14. All parties, interested persons, and the general public were given an adequate opportunity to submit public comments on the Draft Permit as allowed under 20 NMAC 4.1.901.

15. The Permittees satisfied their burden of proof to justify the issuance of a final Permit.

E. Draft Permit Part 1-General Permit Conditions

16. The general permit conditions in Part I satisfy all applicable regulations as set forth in 20 NMAC 4.1.500.

F. Draft Permit Part 2- General Facility Conditions

17. The general facility conditions set forth in Draft Permit Part 2 satisfy applicable regulations set forth in 20 NMAC 4.1.500.

G. Draft Permit Part 3- Hazardous Waste Storage and Containers

18. In the Draft Permit the conditions for storage of hazardous waste in containers at the facility satisfy the applicable regulations set forth in 20 NMAC 4.1.500.

H. Draft Permit Part 4- Hazardous Waste Storage and Treatment in Tanks

19. In the Draft Permit the conditions for storage and treatment of hazardous waste in tanks at the facility satisfy applicable regulations set forth in 20 NMAC 4.1.500.

I. Draft Permit Part 5- Treatment in surface impoundment

20. The Draft Permit conditions for treatment by evaporation of hazardous waste in the surface impoundment at the facility satisfy applicable requirements of 20 NMAC 4.1.500.

J. Draft Permit Part 6- Hazardous Waste Disposal in the Landfill

21. The conditions for disposal of hazardous waste in a landfill at the facility satisfy applicable requirements of 20 NMAC 4.1.500.

K. Draft Permit Part 7- Vadose Zone Monitoring

22. The Draft Permit conditions to ensure the earliest possible detection of contaminate leakage from the landfill and surface impoundment user's of vadose monitoring satisfy all applicable regulations under 20 NMAC 4.1.500 and 20 NMAC 4.1.900 which require that owners and operators of facilities

that treat, store, and dispose of hazardous waste, monitor the groundwater of the uppermost aquifer for possible contamination releases and operate under the necessary permit conditions to be protective of human health and environment.

23. The approval of the waiver of the requirements of groundwater monitoring at the facility satisfies all applicable regulations as set forth in 20 NMAC 4.1.500 (incorporating 40 CFR 264.90 (B)(4)).

24. The groundwater monitoring waiver and vadose zone cell monitoring is more appropriate and more protective of the health and environment than groundwater monitoring at this facility given the site geology and depth of groundwater. The uppermost aquifer beneath the facility is approximately 700 feet beneath the facility. Contaminant migration modeling based on conservative assumptions predicts that any contaminant released from the facility would not reach the uppermost aquifer beneath the facility for at least 800 years.

25. The groundwater monitoring waiver for the facility was approved by the secretary for reasons specified in permit attachment H and approval by the secretary satisfies applicable regulations of 20 NMAC 4.1.500 (incorporating 40 CFR 264.90 (B)(4)).

L. Draft Permit Part 8- Closure and Post Closure Care

26. The Draft Permit conditions for closure and post closure care for the Facility satisfies applicable regulations in 20 NMAC 4.1.500. The additional

condition of additional design cost to separately design the landfill cover for Phase I-A satisfies applicable regulations under 20 NMAC 4.1.500.

27. The financial assurance requirements of the Draft Permit satisfies applicable regulations in 20 NMAC 4.1.500.

M. Draft Permit Part 9- Corrective Action for Regulated Units

28. The Draft Permit conditions ensure an appropriate response in the event of a release of hazardous waste or contaminants from a regulated unit at the facility satisfy applicable requirements of 20 NMAC 4.1.500.

N. Draft Permit Part 10- Corrective Action for Solid Waste Management Units

29. The Draft Permit conditions for necessary corrective action for hazardous waste or hazardous constituent releases that occur at the solid waste management units (SWMUs) in areas of concern (AOCs) at the facility satisfy applicable requirements of 20 NMAC 4.1.500.

O. Endangered Species

30. The NMED does not have jurisdiction under 20 NMAC 4.1.500, or any other relevant section to deny, delay, or condition the permit based on the Endangered Species Act 16 USCA § 1531 et. seq. There is no evidence that issuance of the permit without condition related to protection of the Lesser Prairie Chicken or any other species violates the Endangered Species Act so as to justify denial, delay, or condition of the permit. The Applicant's compliance with the requirements of the New Mexico Game and Fish Department for fence flashing, perimeter fencing and netting satisfies applicable requirements, if any, of 20 NMAC 4.1.500.

P. Foreign Waste

31. The permittee shall be allowed to accept hazardous waste which is generated outside the United States of America in countries that are parties to the La Paz Agreement provided that the hazardous waste is imported by a generator other than the Applicant or permittee who complies with the importer requirements of 20 NM 4.1.500 and all applicable regulations including 40 CFR 264.12(A). The Draft Permit section 2.3.1 is clarified that hazardous waste imported from a country party to the La Paz agreement by a generator located in the USA and registered as required by the U.S. EPA or NMED is not considered "hazardous waste" from a generator of hazardous located outside the USA and is not considered hazardous waste from a source located outside the USA.

32. Applicant's compliance with 74-4-4.7 NMSA 1978 Permit Applicant Disclosure is beyond the scope of this hearing. In order for the Applicant's disclosure to be used to deny permit there must be notification from the secretary to the applicant that the secretary is contemplating a denial of the application. 74-4-4.7(E). There is no mandatory requirement that an Applicant's disclosure be used as a basis for the secretary to deny a permit. Only if the secretary indicates that he wishes to exercise discretion to consider denial of an application, and provide proper notice to the applicant with an opportunity for response, can the Applicant's disclosure can be used for purposes of permit denial.

33. 74-4-4.7 contemplates the disclosure process outside and beyond the scope of the application and permit process, which is subject to the public hearing in this matter. None of the testimony regarding the Applicant's compliance with disclosure requirements is material to the issues which will be decided for purposes of recommendation and issuance of the permit.

34. The public hearing in this matter is not the appropriate forum and does not have jurisdiction to consider issues regarding disclosures or failure to update disclosures.

35. The public hearing does not determine the completeness or compliance of the Applicant disclosure requirements of 74-4-4.7 NMSA 1978.

36. The Applicant's compliance with disclosure requirements are not material to the issues in the public hearing and are not a basis to deny, delay or condition the permit.

37. The Draft Permit, with the conditions related to landfill cover closure design costs, additional wells related to Vadose Zone Monitoring and groundwater monitoring wavier and the clarification of foreign waste has been proved by a preponderance of the evidence to satisfies the requirements of 20 NMAC 4.1.500 and any other relevant requirements.

Respectfully submitted,

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