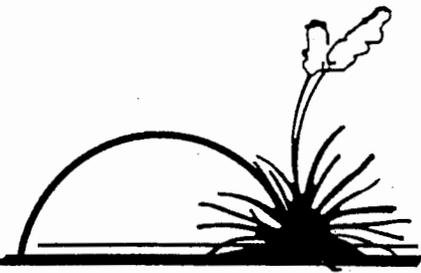


12/17/01

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# CARD

Citizens For Alternatives To Radioactive Dumping



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## STATE OF NEW MEXICO BEFORE THE SECRETARY OF ENVIRONMENT

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)

### PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW OF CITIZENS FOR ALTERNATIVES TO RADIOACTIVE DUMPING (CARD)

By Public Notice dated August 15, 2001, the New Mexico Environment Department (NMED) convened public hearings on the Draft Permit for the Gandy Marley, Inc. Triassic Park Waste Management Facility. Under the terms and conditions set forth in the Final Permit, Gandy Marley, Inc. of 1109 East Broadway, Tatum NM, will be permitted to treat, store and dispose of hazardous waste at the proposed Triassic Park Waste Management Facility pursuant to the New Mexico Hazardous Waste Act, NMSA 1978 §§74-4-1, *et seq.* This matter was assigned to Hearing Officer Felicia Orth for an evidentiary hearing and to receive public comment.

The evidentiary hearing convened on October 15, 2001 in Roswell, New Mexico and continued for 5 days. Gandy Marley, Inc. presented 7 witnesses, including 5 technical witnesses; NMED presented 5 technical witnesses. Other parties to the Hearing presented witnesses as follows: Forest Guardians (1 technical witness); Conservative Use of Resources and the Environment (CURE) (14 witnesses, including 3 technical witnesses); Citizens for Alternatives to Radioactive Dumping (CARD) (1 technical witness); and two individuals, Allen Squire and Linda Squire, also presented technical testimony.

In addition to the technical portion of the Hearing, the Hearing Officer presided over periods reserved for Public Comment. The record of the Hearing was extended to receive public comment and closed on October 25, 2001.

Having heard the evidence and considered the exhibits, administrative record, and the arguments of counsel at the hearing held in this matter, the Hearing Officer finds and concludes that it should be recommended to the Secretary of NMED that the Final Permit be denied (or in the alternative, remanded for additional hearings) and makes the following findings of fact and conclusions of law.

## FINDINGS OF FACT

1. This proceeding is governed by the Permitting Procedures adopted by the Environmental Improvement Board (NMAC 20.4.1.901) which provide that "the burden of proof shall be on the applicant...." (Section 901 F (7)).
2. The Procedures provide that any Draft Permit prepared by the New Mexico Environment Department (NMED) shall be based on the administrative file (Section 901A(2)) and further that the "approval of a permit does not relieve any person from responsibility of complying with applicable state or federal laws and regulations." (Section 901A(11)).
3. There is not one shred of evidence in the Administrative Record or in the transcript which demonstrates that either Applicant or NMED considered the potential adverse, disparate

impact of this permitting decision as mandated by Title VI of the Civil Rights Act of 1964 and EPA's implementing regulations.

4. Any adverse, disparate impact analysis, in the permitting context, must examine a number of issues which have become popularly identified as matters of "environmental justice" (e.g., racial and ethnic compositions; economic conditions; health conditions; clustering of facilities; cumulative environmental burdens, etc.)

5. These are the issues Applicant sought to avoid when it filed a Motion in Limine to exclude testimony and documents concerning environmental justice issues. [Motion in Limine, 10/8/01, Pleading Log No. 59]

6. Citizens for Alternatives to Radioactive Dumping (CARD) and Conservative Use of Resources and Environment (CURE) filed oppositions to the Motion in Limine. [Responses in Opposition to Motion in *Limine*, 10/12/01, Pleading Log No. 65, 66]

7. At the hearing CARD sought to present testimony on the adverse, disparate environmental issues associated with the siting of the Triassic Park facility, but Applicant challenged CARD's testimony on the grounds of relevancy. [Tr. 30]

8. In its challenge, Applicant argued that CARD's testimony was not relevant to this proceeding since only state requirements were relevant to permit proceedings and not federal requirements. [Motion in *Limine* ¶¶3, 4.] There was no ambiguity in Applicant's motivation: "...our motion is to avoid going down this path of environmental justice." [Tr. 34]

9. NMED, having failed to require Applicant to address Title VI/environmental justice issues prior to issuance of the Completeness Determination and Draft Final Permit, proclaimed it was "neutral" on the exclusion of CARD's testimony. [Tr. 32]

10. CARD, appearing at the hearing without counsel, objected to the exclusion by stating that "...there is a legal requirement to look at this during the permitting process..." and "...[it] is a requirement in the EPA regulations." [Tr. 36]

11. CURE, by counsel, objected to the exclusion on the ground that the decision makers (Hearing Officer and the Secretary) should look at whether the impact of a siting decision

would be contrary to the purposes of the New Mexico statutes governing the proceeding, specifically, the Environmental Improvement Act and the Hazardous Waste Act. [Tr. 36, 37]

12. The Hearing Officer accepted Applicant's arguments and excluded CARD's testimony and documents, ruling that environmental justice issues were not relevant to the proceeding. She stated:

I don't believe it's relevant [testimony on environmental justice], and I don't see a ground in the state permitting laws that allow me to say "Oh, they didn't do x as to environmental justice? [sic] they don't get a permit" ...or that may be some special condition. [Tr. 41]

13. After excluding the testimony, the Hearing Officer ruled that an abbreviated version of CARD's testimony could be presented as an offer of proof. She stated, "[a]nd you can talk with any lawyer about what that looks like." [Tr. 40, 42] In essence the ruling meant that CARD's testimony and documents would be included in the record, but such testimony and documents could not be relied upon or considered in the decisional process.

14. In support of the decision to exclude CARD's testimony, the Hearing Officer stated:

...I don't think that the Title 6 arguments, your discrimination arguments, would further impact arguments and survive a recent Supreme Court decision...." [Tr. 34].

15. In a further effort to justify the exclusion, the Hearing Officer looked to a recent decision in the U.S. District Court, New Jersey which addressed the scope of EPA's Title VI regulations and the burdens imposed on funding recipients to consider environmental justice issues as part of the permitting decisions. The Hearing Officer commented:

Twice the Third Circuit has undone what he [the Federal Judge] did. And so while there was about a week there where it was pretty exciting for environmental justice advocates, I think the door's been closed there." [Tr. 39] (*emphasis added*)

16. After objecting to the exclusion ruling, CARD made an offer of proof, stating, among other things, that:

[S]o much of the affected–potentially affected populations falls under the description of people of color, poor communities or both, it is my belief that not only are there particularly sensitive subpopulations that would be disparately impacted by the facility, but that siting of the facility in this area is also generally not protective of human health and the environment." [Tr. 714]

17. Accordingly, CARD urged that NMED and Applicant be required to prepare a more detailed socioeconomic and health evaluation of the affected population before deciding to grant or deny the permit. [Tr. 714]
18. NMED had an affirmative duty to ensure compliance with EPA's Title VI regulations and the issues of environmental justice arising thereunder. Under its own regulations NMED was directed to insure that Applicant addressed all issues required by applicable laws and regulations before issuing the Completeness Determination and Draft Final Permit. (NMAC 20.1.4.200)
19. Taken as a whole, the evidence in the record demonstrates that Applicant sought to exclude from the hearing all evidence on environmental justice and Title VI regulations; that NMED failed to require Applicant to address such issues during the permitting process; and that the Hearing Officer ruled that evidence on environmental justice under EPA's Title VI regulations was not relevant to this hearing on the Draft Final Permit.
20. Evidence in the Administrative Record and the Transcript demonstrates that NMED and the Applicant did not provide for and encourage public participation in an adequate and timely manner.
21. On 3/15/01 NMED gave Public Notice of the proposed permit for Triassic Park, including a description of the comment period, and issued a Fact Sheet. The Public Notice, Draft Permit and Fact Sheet were all issued in English-only versions.
22. The Draft Permit and the Fact Sheet were not available after working hours in the facility area until after 6/13/01 when they were put into the Roswell Public Library. This was a re-issue of the Draft Permit and Fact Sheet after the previous version had been rescinded. This

was more than a month after the first public information meeting, held in Roswell on May 4th, and almost 3 months after the 3/15/01 Public Notice and Fact Sheet.

23. Even then, only part of the Draft Permit was put in the library. Ground-Water Monitoring Waiver documents and site characterization documents were among the missing permit sections that were not available until a month later.

24. Residents of the area had already informed NMED of the difficulties of getting to Roswell from other parts of the potentially affected area. [AR 01-042] It is an 80 mile round-trip from Artesia to Roswell, a 144 mile round-trip from Tatum, and a 210 mile round-trip from Lovington--almost a 4-hour drive. [Pl. log No. 38, Ex. 2]

25. This limited availability of permit documents was compounded by problems with the on-line versions: the Draft Permit and its attachments were not all posted on-line March 15th as noticed; there were continuing compatibility problems with Mac-based systems, and many local residents didn't have on-line access. [AR 01-038, 01-043]

26. These residents continued to complain of document access problems including problems getting on-line, through at least September. They particularly noted that the Roswell Public Library had been closed for 2 weeks, cutting off both hard-copy access and Internet access to the on-line version for many people. [AR 01-163] As late as 12/17/01 the August 15, 2001 English revision of the Fact Sheet is still not available on-line. The latest on-line Fact Sheet is dated 6/15/01.

27. There were also serious problems with accessibility to the Administrative Record in the Department's Santa Fe office. Because of a computer problem, numerous documents had been deleted from the Administrative Record Index during the comment period; some documents that should have been available were being kept from the public in a confidential file; and some documents were missing altogether from the Record.

28. These problems were not straightened out until well after the hearing was complete which made it difficult or impossible for the public to view these documents and therefore to give meaningful comment at the Hearing. One memo dated 2/4/99 which was supposed to be removed from the confidential file and returned to public access, was not returned to the

Record and added to the Index until December 14, 2001—and then only at CARD's insistence.[AR 99-086]

29. In addition, at one point in the permit process, NMED refused to release Applicant's financial disclosure information to the public. This information is part of the application and therefore public record. Nevertheless, members of the public had to hire a lawyer to obtain these documents. [Tr. 343]

30. The Department was told that the Hispanic community in Chaves, Lee, Roosevelt and Curry Counties needed more information and help in creating informed public comment, but the Department never supplied this help. It was only after repeated requests and legal action that the Department finally supplied even the most basic information in Spanish. [AR 01-038, 01-043, 01-151, 01-179] Public Notices were issued and published in Spanish after June 15th. [01-049, 01-076, 01-142, 01-089, 01-175, 01-223] However, a Spanish Fact Sheet was only available in either hard-copy or on-line at the end of August. Then, it was only mailed to people who had somehow known to request it. [AR 01-142, 01-144, 01-152, 01-157] A Spanish Fact Sheet was finally sent to the Roswell Public Library on August 29th. [01-158]

31. NMED received almost 800 letters and cards from all over the state informing the Department that there were potential environmental justice problems with facility siting [Tr. 354, 415; P. Log No. 50; AR 01-038, 01-043, 01-223, 01-130] and that these problems included the disenfranchisement of the Spanish-speaking residents who were, "...being left out of the process because of a language barrier..." [AR 01-179]

32. Residents informed NMED that they were already overburdened with polluting facilities [Tr. 354, 415; 01-093] and that this area had been targeted for these types of facilities because communities there "...have low education levels, are economically depressed and have high levels of minorities." [Tr. 354; AR 01-130]

33. When one resident asked NMED for information about any "...documents, correspondence, guidelines and directives to and from EPA and NMED concerning environmental justice..." he was told that "...few such items existed..." [AR-01-166] No such information or even document names or descriptions were ever provided despite two requests.

34. Early on, in a letter forwarded to NMED by the New Mexico Environmental Law Center, the Fambrough Water Cooperative stated that:

"We collectively believe that a sense of disenfranchisement, the prominence of a communication barrier, a lack of effort to overcome it by the NMED and GMI, and a perception of being taken advantage of by this industry are serious concerns." [AR 01-179]

The Coop even asked for a disparate impact study to be done when it asked for

"...an investigation into possible environmental justice issues..." [AR 01-179]

35. On April 16th NMED did request Applicant to provide public meeting notices in Spanish (even though NMED itself was not providing any Spanish notices at the time). [AR 01-040]

36. In the same letter NMED supplied Applicant with regulations concerning the pre-application meeting, and incorrectly instructed Applicant that:

"You obviously will not be able to meet the 30-day meeting notice deadline of subsection (d). That would be ok in light of our desire to meet as soon as possible." [AR 01-040]

37. Applicant failed to provide notice in Spanish about any of its meetings until the last meeting on the day of the Hearing itself. Applicant also did not provide 30 days notice for any of the meetings including the last one. The last meeting had about 2-weeks notice, but other meetings were only noticed in the newspaper a week before and in some cases only a few days before the date of the meeting. [Tr. 983-984; AR 01-046, 01-049, 01-050, 01-052, 01-054, 01-098; Pl. Log No. 67] This made it difficult for many interested people to be informed of and come to the meetings.

38. Although Applicant provided 6 public meetings in 2001, the meetings were not provided as a good-faith effort to inform the public about the proposed facility. Applicant tried to portray itself as addressing the public's concerns in the information meetings, but just the opposite is true. On the one hand, Applicant said that the information meetings were held to:

"...tell people about the project and allow them an opportunity to ask questions and raise concerns..." [Tr. 979]

On the other hand, when asked why some of those concerns were not addressed during the public process, Applicant said that:

"There weren't concerns voiced at these meetings so it's hard to respond to something that is not there." [Tr. 978]

39. Applicant did not respond in later meetings to the questions and concerns of the public, despite the numerous questions and concerns that had been raised early on. [AR 01-069, 01-093]

40. Despite repeated requests for information in Spanish, Applicant never provided any written presentation materials or fact sheets in Spanish [Tr. 981-982] and refused to provide Spanish translations of its oral presentations until the October 15th meeting, despite earlier promises to do so. [Tr. 429; AR 01-151 (Ex. 4, 5, 2), 01-163 (Aff. Judy King)]

41. Applicant's refusal to use the translator that was present at the July 19 Hagerman public meeting, to translate the English presentation; coupled with the rudeness of the meeting facilitator, NMED's Pat Pattengale, to a Spanish-speaking community and religious leader and to Spanish-speaking members of the public; caused 50-70 people to leave the meeting [Tr. 429-432; AR 01-151, 01-163 (Ex. 4, 5, 2), 01-163 (Aff. Judy King, Victor Blair)]. One member of the public who was present at the Hagerman meeting even stated that the rudeness of the facilitator and the disrespect displayed toward Hispanic members of the community "...displayed the malicious intent of GMI's public information meeting..." [AR 01-163 (Aff. Judy King)]

42. Although because of their lack of English some people at the Hagerman meeting didn't even know a translator was available for the Question and Answer session after the English presentation, [Tr. 430] Applicant obtusely tried to claim that it was logical to provide a translator only to help people ask questions about a presentation they couldn't understand. [Tr. 979-980, 983]

43. Applicant then tried to minimize the outrage of the community by undercounting the number of people who left the meeting and claiming they had been asked to leave when, in fact, they had acted of their own accord. [Tr. 430-431, 980; AR 01-151, 01-163 (Ex. 4, 5, 2), 01-163 (Aff. Judy King, Victor Blair)].

44. Despite the participatory setbacks foisted upon them, Mexican and Hispanic members of the public persisted in trying to obtain information about the facility, continued to submit public comment and some even persisted to testify at the hearing itself. [Tr. 319-322, 427-431, 615-618, 623-638, 942-951, 958-968; AR 01-061, 01-106, 01-108, 01-112, 01-151, 01-179, 01-204]

45. In addition to alienating the Mexican and Hispanic residents, Applicant used the so-called information meetings and the permit process to misinform the public about the proposed facility and about some of Applicant's intentions for that facility.

46. During the public meetings, Applicant told participants during the Power-Point presentation and in the presentation handout that there would be a maximum of 3-5 trucks entering the facility per hour. Even if only waste trucks are counted, this is only true if a working day is 16 hours long. If all trucks entering the site are counted, this is only true if the work day is 23 hours long. Applicant's estimate of an average of 1-2 trucks per hour is even more misrepresentational since the work day would have to be 55 hours long to make those figures work—even for waste trucks alone. [Tr. 347, 359; AR 01-103; Permit Att. L, Table 1]

47. Despite public concerns that the proposed facility will lead to decreased investment, development and income in the food-belt surrounding the facility, and to increased expenses for road maintenance and emergency response, [Tr. 345-355, 413]; AR 01-130 Applicant downplayed these negative economic effects to such an extent that one resident said GMI's answers were "...downright deceitful." [AR 01-173]

48. Applicant also claimed under oath that the toxicologist and meteorologist that attended the October 15th information meeting were hired to respond to the public's concerns and were not retained for any purposes of the permit itself. [Tr. 987] In fact, these scientists were intimately involved in the purposes of the permit as they gave both written and oral technical testimony about human exposures from potential releases from the proposed facility. Human exposure

information is a requirement of the permit application at NMAC 20.4.1.900 (incorporating 270.10(j)). [Tr. 90-120; Pl. Log No. 26 (d) and (e)]

49. Applicant misrepresented the nature of the waste to be received and treated at the facility during the July 17 Roswell meeting, when Applicant assured a cancer survivor twice that "...there will be no carcinogens..." in the surface impoundment or at the facility. According to another participant at that meeting, this statement was "...in total disagreement to the statements by GMI concerning the same subject at the May meeting." [AR 01-110]

50. It was at the July 17 meeting at the Sally Port Inn that the Applicant went so far as to threaten and intimidate members of the public. Applicant threatened several people with arrest for passing out information and a petition critical of the facility, despite their having permission from the hotel to do so. One person was so intimidated by this threat that she did not appear in any future public participatory activities. [Tr. 340, 1112, 1114, 1117, 1120, 1124] Applicant later denied making the threat [Tr. 973-974]

51. Applicant claimed in early press releases and information newsletters about the facility that the site:

"...will ensure a cleaner, safer environment for future generations...We firmly believe this is so because the proposed facility will not accept radioactive [or] transuranic...waste." [AR 95-011]

Applicant also claimed under oath that it had never discussed with NMED, the possibility of turning the proposed facility into a mixed waste dump. [TR. 276]

52. However, Applicant was disingenuous in its statements to the public about its intentions for the facility, since as late as 1999, Applicant was discussing the possibility of accepting low level radioactive waste at the dump with the Department. [AR 99-086]

53. That this intention to turn the facility into a mixed waste dump was an ongoing one is supported by the 'example checklist' of 1/23/97. This checklist is clearly marked on page one as being for the Triassic Park Facility. Sections that would not be applicable to this particular facility are marked throughout with a 'N/A' in the first column. Yet on page 3, section C-3a(5) 'Radioactive mixed waste' is marked 'Y' instead of N/A. Clearly in 1997 it was believed by the

person creating this example checklist that radioactive mixed waste was a category that would be applicable to Triassic Park and needed to be addressed. [AR 97-042]

54. Applicant also did not fully disclose its past history of environmental violations to the public. Applicant neglected to include its 5/10/88 OSHA Notice of Violation in disclosure statements until 11/9/01, well after the Hearing was over. Applicant claimed not to understand that OSHA is considered an environmental statute. However, it has been NMED's policy that OSHA is an environmental statute for at least 3 years since the operator of the last TSD facility permitted by NMED was required to submit information on its environmental violations. Applicant is not an uninformed member of the public but is represented both by counsel and by a 'government affairs representative' whose job it is to be "...the contact person for the GMI team when the information needs to be either sent or delivered to New Mexico Environment Department..." [Tr. 974] Therefore, Applicant should have known about this policy and should have disclosed this OSHA violation at the proper time.

55. There is insufficient evidence in the Administrative Record or Transcript to demonstrate that there is no potential for migration of liquid from a regulated unit to the uppermost aquifer during the active life of the regulated unit (including the closure period) and the post-closure care period as required by NMAC 20.4.1.500 (incorporating 40 CFR §264.90(b)(4)).

56. Applicant does not know critical information about the site including how far, horizontally and vertically groundwater is from the site in the Upper and Lower Dockum; [Tr. 440] whether water exists in the upper Triassic sediments at the site; whether the Lower Dockum Aquifer is present at the site; what the quality of water is at and near the site in the Triassic Sediments; and whether or not fast flow paths exist under the site. [Tr. 475] In addition, Applicant has not definitively identified the uppermost aquifer beneath the proposed facility. [Tr. 499-500]

57. After some initial shallow exploratory drilling, Applicant's hydrological and geological characterization of the site began in 1994 with a program of close-spaced pattern drilling on the southern portion of the site. Applicant found no saturation on-site. [Tr. 130] Most of these holes bottomed out in the Lower Dockum at 100 feet or less, and were therefore

characterizing groundwater conditions in the Upper Dockum unit and in the Upper Dockum/Lower Dockum Contact (Contact). [Application, Appendix D; Permit Att. H, p. 6]

Three deeper holes were drilled in 1995 during a 2-day program—two on-site (PB-36 and PB-37) and one to the east of the site (PB-38). In 1999, 9 additional holes were drilled in the northern area of the site (PB-39 through PB-46). [Application: Appendices C and D]

58. Applicant admits that perched water has been found in the Upper Dockum in PB-1, PB-26, and WW-1 to the north and east of the site and PB-14 to the southwest of the site. [Tr. 136, 154, 166; Permit Att. H, p. 9] Applicant also assumed groundwater was found in the Dockum at PB-27. [AR 96-012, p. 5, Response to Comment 103]

59. Applicant stated that it "...purposely tried to go out and find more perched water..." [Tr. 136] but Applicant drilled no holes in the northwest corner of the site, only one hole (PB-39) in the northern portion of the site, and no holes closer than approximately 4750 feet north of the site. [Tr. 130; Permit Att. H, Figure 1-1, *Drill Hole Locations*] (This distance can only be approximate because not only is there some question as to the scale of Applicant's permit maps, but the proposed site boundary appears to have been incorrectly drawn, at least in part.)

60. Water was found in PB-39, but Applicant claims it was not groundwater. North and east of the site, groundwater in the Upper Dockum was found closest to the site boundary at WW-1. [Permit Att. H, Figure 1-1; Applicant's Exhibit 7 (for corrected position of WW-1)]

61. Exact distance to WW-1 is unknown since several different distances from WW-1 to various locations at the site were given by Applicant; WW-1 was never surveyed; and because of scale, boundary inconsistencies and other problems with Applicant's maps, an accurate distance was never finally determined. However, the most accurate approximation appears to be about 800 feet from the site boundary. [Tr. 157, 441, 574, 460, 1055, 1067]

62. If the position of WW-1 is corrected on Applicant's map *Upper Dockum-Perched Water* [Permit Att. H, Figure 4-2] and the area of perched water in the northeast is extended to this corrected position, a large area of perched water is shown to extend approximately 4250 feet north from WW-1.

63. Since there are no test-bores north of the site between the site boundary and PB-34/PB-35, it is impossible to know the western limits of this saturated zone in the upper Triassic sediments. Since there are no test-bores in the northwest corner of the site at all, it is impossible to know if saturation occurs there as well, or to know the direction of flow in this area.

64. Since there are also no test bores between WW-1 and PB-47. [Tr. 1155-1156] it is impossible to know if the western edge of this saturated zone extends into part of the site.

65. Applicant also found groundwater in the Upper Dockum at 64 feet in PB-14 but describes it as " ...a small accumulation of groundwater..." and claims that this water is simply isolated pooling of surface run-off caught in a small stratigraphic trap. However, Applicant pumped water from this boring once a week for six weeks, and it always recovered to its original depth. [Tr. 473; Permit Att. H, p. 11]

66. PB-14 is just north of the southwestern corner of the site and in line with a row of 4 active water wells, RA-8585 through RA-8588 , about 4 miles and 7.5 miles southwest of the site. [Permit, Att. H, Figure 4-1 *Water Wells - 10 Mile Radius*] Applicant describes these as wells that penetrate the Upper Dockum but which could have water originating in the Alluvium since, like the boreholes on-site, they are drilled to depths of 100 feet or less. [Att. H, p. 8]

67. Applicant has not done any drilling to investigate the hydrology of the Upper Dockum between RA-8585 and PB-14, and cannot describe the origin of the water in RA-8585 through RA-8588 with any assurance; therefore it is impossible to know if a saturated area or aquifer exists in the Upper Dockum extending from at least PB-14 southwest to RA-8588.

68. Applicant found no saturation within the site boundary in over 30 site boreholes. [Tr. 130] These boreholes were drilled with rotary air which Applicant claimed in the Application and at the hearing, would clearly show any groundwater because

"...the minute you hit any kind of saturation...you will get a loss of return to the surface." and "[when] you hit some groundwater, it's something that's very recognizable..." [Tr. 132-133]

69. However, Applicant stated earlier that air drilling in the conditions that exist in the Dockum does not always give a true picture of saturation that may exist, especially if wells are logged immediately after they are completed. since "...fluids are not immediately recognizable in these boreholes." PB-27 was logged immediately after it was completed and no groundwater was found. However, it was later determined that the lower portion of the borehole would be saturated and that Applicant would have found this saturation if it had waited before running the geophysical log. [AR 96-012, p. 5; Response to Comment 103]

70. When describing drilling at PB-14, Applicant also stated that:

"The high pressure injection air associated with this drilling technique, when encountering small amounts of groundwater, will prevent this fluid from immediately entering the borehole. The drill cutting samples did not indicate the presence of groundwater." (*emphasis in original*) [AR 96-012, pp. 1-2, Response to Comment 82]

Sometimes Applicant had to wait 24 hours before signs of saturation appeared in a borehole. The lithology logs for both PB-14 and PB-14-o also recorded no groundwater and water was not found in BP-14-o until the geophysical log was run the day after the well was drilled. [AR 96-012, pp. 1-2, Response to Comment 82]

71. In fact, 6 of the 7 borings that penetrated saturated zones did so without this fact being detected by the drilling crew or the geologist logging the cuttings, and without loss of circulation. (PB-1, PB-14, PB-14-o, PB-26, PB-27, and WW-1). [AR 97-010, p. 37]

72. Applicant admitted that:

"...in the case of the Upper Dockum sediments on the Facility site, this drilling technique was not always successful in identifying water saturation...The pressure of the air from the drilling process prevented water from immediately entering the holes." [Application 3.4.3.2]

73. It is difficult to know how long Applicant waited to log the close-spaced borings on-site. Although gamma and neutron logs on most holes seem to have been run a day or two after the holes were drilled, about one third of the holes appear to have been drilled on the same day

they were logged (or at least on the same day the lithology was logged). Unfortunately, no drilling dates appear in the lithology logs for these 1994 holes. The waters are muddied further because the Application states that drilling operations began on July 17, 1994 when, in fact most holes were logged before then. [Application: Appendix C, D and 3.4.3.2] Because of these problems, there is insufficient data to show that all holes were logged after an adequate amount of time had passed for water to appear.

74. Water was found in PB-1 at 180', in PB-140 at 92', in PB-26 at 128', in WW-1 at 158' and in PB-2 at 158'. Yet all the holes drilled on-site during the 1994 program were logged at 97' or less. PB-12 was logged at 87'. [Application: Appendix D] Groundwater could easily be present in the Upper Dockum or in the upper part of the Lower Dockum, but Applicant most likely would have missed it because of the shallow depths of these wells.

75. PB-36 (one of the deeper holes drilled in 1995 along with PB-37 and PB-38) was logged the same day it was drilled, so Applicant's data do not support a conclusion that it is dry. At least one of and perhaps both PB-37 and PB-38 were also logged on the same day they were drilled. [Application: Appendices C and D]

76. The same is true of all the deeper holes drilled during the 1999 9-hole drilling program in the north of the site. PB-43, PB-44, PB-45, PB-46 and PB-47 were all logged on the same day they were drilled. PB-40, PB-41 and PB-42 were logged the day after they were drilled, but at 90', 70' and 84', their logging depths are higher than all the depths at which water was found except for the depth at PB-14 (and PB-39 if water there was groundwater). [Application: Appendices C and D]

77. Finally, 10 holes that were part of a weekly monitoring program were all drilled 100 feet deep, but none of the perforated pipe in the holes extended below 80 feet, and two of the casings were not perforated below 40 feet. Applicant's approach to looking for water in these wells was so inadequate that an 1997 A.T. Kearny report says:

"This approach seems to provide a good way to avoid detection of saturated strata which may exist below the perforated zones." [AR 97-010, p. 37]

Applicant's drilling program, especially in the northern part of the site, cannot be said to adequately support a conclusion that the Upper Dockum is unsaturated.

78. Although, the Upper Dockum fits the definition of an aquifer at least in some areas, [Tr. 501] Applicant claims that the uppermost aquifer beneath the site is the basal sand unit of the Lower Dockum, also known as the Santa Rosa equivalent.

79. To help characterize the saturated zone in this Lower Dockum unit, Applicant drilled only two borings--WW-1 and WW-2. Applicant cannot say definitively that this drilling program reached the base of the Lower Dockum and only says that WW-1 and WW-2 "...were drilled to approximately the base of the Triassic section..." (*emphasis added*) where water was encountered which Applicant believes came from the Lower Dockum Aquifer. [Permit Att. H, p. 9]

80. In fact, both WW-1 and WW-2 never retrieved any cuttings from the basal sandstone, and at the time of drilling, no water saturation was apparent in the drill cuttings of WW-1. [AR 97-010, p. 36; Permit Att. H, p. 9] In 1996-97 Applicant claimed that:

"... the Santa Rosa Sandstone, the lowermost Triassic depositional unit and a major aquifer, is not present at the proposed site." (*emphasis added*). [AR 97-010, p. 36]

81. Now Applicant claims to have reached the Santa Rosa equivalent, but with little assurance, since it can only say that

"It is likely that the basal sandstone of the Lower Dockum Unit was penetrated at this depth." (*emphasis added*). [Permit Att. H, pp. 9-10]

82. Applicant is not sure that any of the water encountered in WW-1 came from the Santa Rosa equivalent. WW-1 penetrated a saturated zone in the Upper Dockum Unit, resulting in a mixing of groundwaters in that borehole. [Permit Att. H, p. 9] Applicant can only say that at WW-1:

"...there's a chance we have water in the Lower Dockum..." (*emphasis added*) [Tr. 154]

83. Applicant also does not know if waters found in WW-2 were coming from the Lower Dockum or even if the Lower Dockum Aquifer was reached in WW-2. Because units that were not of interest were not sealed off, water could have entered WW-2 from any stratum. [Tr. 455-457]

84. Applicant claims drilling reached the Lower Dockum Aquifer because circulation was lost at a depth of 645 feet when drilling WW-2. However, there are other more likely explanations for a loss of circulation, including hitting a fracture, cavern or other area that has a larger volume. [Tr. 1164-1165]

85. Applicant also used about a dozen oil well logs to predict the depth to the Lower Dockum Aquifer. However, only 4 wells were within 2 miles of the site and the closest well to the site, Cities Federal #1, was within about 700 feet of the site, but was almost 2 miles from WW-2 and over 1 mile from WW-1. Other wells were even farther from WW-2. [Tr. 134-135, 137; Applicant's Exhibit 7]

86. Applicant stated that:

"...we hit the base of those--of those Lower Dockum mudstones, just about exactly where we had--where we would have guessed from having looked at the oil well logs." [Tr. 135]

Extrapolation from 12 oil wells 2 or more miles away appears to be Applicant's only reason for believing that the loss of circulation at 645 feet in WW-2 was evidence of reaching the Lower Dockum Aquifer rather than evidence of a fracture. [Tr. 162]

87. However, oil well logs from this region cannot even describe the thickness of the Santa Rosa equivalent near or beneath the site since Applicant can only say that:

"From the oil well logs that we have looked at, we suspect that the Santa Rosa equivalent, this Lower Dockum Aquifer...[is] 50 to 60 feet."  
(*emphasis added*) [Tr. 174]

88. In fact, the Santa Rosa equivalent is poorly mapped in this area because there are so few borings of any kind near the site. [Tr. 175-174] Dr. McGowen mapped the Lower Dockum

and extrapolated from the meager near-by borings and from numerous distant borings that a single channel of this Lower Dockum Aquifer runs under the southern part of the site. Even he, however, can only be said to predict that:

"We don't want to say it's not there. We want to say yes, there's a very good likelihood there will be a Lower Dockum Aquifer there..." [Tr. 174-176]

89. Unfortunately, the information gathered during the Lower Dockum Aquifer characterization program is insufficient to determine where, vertically, the Lower Dockum Aquifer is situated below the site, or even if it exists there at all.

90. Therefore, although the uppermost aquifer beneath the proposed facility could be in the bottom of the Lower Dockum unit, it could also be in the Upper Dockum unit or in the Contact, higher in the Lower Dockum, or even below the Lower Dockum in the Rustler Formation which is known to contain several water-bearing zones.

91. Dr. McGowan also theorized that water in the Lower Dockum Aquifer near the proposed facility would be of poor quality. [Tr. 176] Indeed, water in WW-2 had a Total Dissolved Solids (TDS) measurement of 18,800 mg/l. [Tr. 140; Permit Att. H, p. 10]

92. However, WW-1 had a TDS measurement closer to 10,000 mg/l [Tr. 140]. If Applicant did indeed hit the Santa Rosa equivalent in both WW-1 and WW-2, and sampled water only from that unit in WW-2, water from the higher units would have to have a low TDS value to dilute Santa Rosa equivalent water with a TDS value of close to 19,000 down to nearly 10,000 in WW-1.

93. Alternatively, the Santa Rosa equivalent water could have a low TDS content and could be having its TDS value raised in both WW-1 and WW-2 by high TDS water from the upper units. Because water could be originating in multiple units in both wells, it is impossible to say what the actual TDS content of the Santa Rosa equivalent is at or near the site.

94. At least a portion of the Lower Dockum aquifer nearby has potable water in it since there are 2 deep working wells at about 7.5 miles and 10 miles from the site. (RA-8577 and RA-9670) [Permit Att. H: p. 9 and Figure 4-1]

95. There may even be high quality water in the Lower Dockum beneath the site. [Tr. 504] Applicant did not drill very far into the Lower Dockum anywhere on the site so there is no information as to the existence of water in the Lower Dockum or a Lower Dockum Aquifer at the site, the quality of the water in that aquifer, or if there are any fractures in the Lower Dockum beneath the site.
96. Applicant stated that there have been no signs of fracturing in the drilling that's been completed. [Tr. 163] This is perfectly understandable since Applicant used rotary air drilling for most of the boreholes that penetrated the Lower Dockum (including WW-1 and WW-2)—a drilling technique that cannot detect fractures. [Tr. 178; Permit Att. H, p. 9]
97. Applicant said there was also no information to indicate that the Lower Dockum unit would be fractured beneath the site. [Tr. 1032] However, a local well-driller who also did drilling on-site, believes that some of the water wells he has installed in the Dockum receive the majority of their water from fractures. [Tr. 464]
98. Applicant did drill three or four boreholes where core was taken from the Lower Dockum, but these three or four holes were all vertical drillings which do not easily detect fractures. [Tr. 163, 462]
99. There is a thick sequence of halite or salt in the Rustler Formation, starting about 200 feet below the Lower Dockum Aquifer; there are dissolution features (The Bottomless Lakes) approximately 35 miles from the site. [Tr. 172; CARD Exhibit 2] If the halite in the Rustler Formation has dissolved beneath the site as well as under the Bottomless Lakes area, there could easily be fracturing in the Lower Dockum above the areas of dissolution. However, Applicant did not drill into the Rustler Formation to explore this possibility.
100. When circulation was lost in WW-2, Applicant should have realized that a fracture or other area of larger volume was a likely cause. [Tr. 1064-1065] Nevertheless, Applicant persisted in its assumption that the Lower Dockum unit is everywhere homogeneous, did no further investigation of the possibility of fracturing in that unit, and never considered flow through fractures when groundwater flow calculations and contaminant transport modeling were done.

101. Because of the type of drilling that was done to characterize most of the site (vertical rotary air drilling), the small number of cored holes and the fact that no deep drilling into the Lower Dockum was done within the site boundary, fractures beneath the site could easily go undetected. Applicant has not ruled out the possibility of fracturing beneath the site. Since Applicant presupposed that there were no fractures in the Lower Dockum, they were never systematically looked for. [Tr. 462-463, 1032]

102. The lack of any drilling in the northwestern part of the site; the insufficient depth and the premature logging of many of the on-site holes (especially in the north near the surface impoundment); the lack of any drilling north and southwest of the site; the inability to delineate the western edge of the saturated zone in the upper Triassic sediments; the lack of understanding of the TDS content of water below and near the site; and the lack of assurance that no fractures exist under the site, all demonstrate that Applicant does not know the pathways or distance to groundwater and that data from the drilling program do not support a finding of no saturation below the site in the upper Triassic sediments.

103. The Secretary can waive the ground water monitoring requirements if Applicant conservatively demonstrates that there is no potential for liquid migration from the regulated units to the uppermost aquifer during the life of the units. The regulations require the owner or operator to "...base any predictions made under this paragraph on assumptions that maximize the rate of liquid migration." NMAC 20.4.1.500 (incorporating 40 CFR §264/90(b)(4))

104. However, assumptions used by the Applicant in contaminant transport modeling did not maximize the rate of liquid migration: the hydraulic conductivity value was too low, the porosity value was too high and the effect of fast flow paths such as fractures or continuous high permeability units like stream channels was completely eliminated. [Tr. 468, 1031]

105. Since the uppermost aquifer beneath the proposed facility, and other aquifers and saturated areas that may exist near the site have not been identified, Applicant cannot define any vertical or horizontal distance parameters for their model—let alone distance parameters that maximize the rate of liquid migration.

106. Since no drilling was done in the northwest corner of the site, the structural contour map of the Contact remains incomplete and exactly what direction potential contaminant migration would flow if the Surface Impoundment leaked remains unclear. [Att. H, Figure 3-6, *Structure Contour Top of Lower Dockum*]

107. Although Applicant had the opportunity to do measurements of field permeabilities in 5 wells that could have resulted in a truly representative value for hydraulic conductivity, Applicant chose to take laboratory measurements of hydraulic conductivities from cores instead. This is a method which even Applicant admits tends to underestimate the permeability of a unit. [Tr. 443, 465, 524]

108. This oversight is compounded by using a value for hydraulic conductivity that is not the value that would maximize the rate of liquid migration, but is an average of all the values found in the laboratory. [Tr. 527]

109. NMED appeared to contradict itself on this point, first claiming during testimony that travel times must:

"...be calculated or modeled using very conservative assumptions, assumptions that would maximize the rate of fluid migration..." [Tr. 803]

and later claiming that it was only necessary to use:

"...the most reasonable highest or maximum hydraulic conductivity when calculating contaminant flow." (*emphasis added*) [Tr. 820]

110. Applicant, however, did not use even the most 'reasonable' highest hydraulic conductivity in its analysis, since there were 5 or 6 core permeabilities that were higher than the value used. [Tr. 527]

111. Applicant testified that it is common to use absurd assumptions "...where actual constraints may not be known..." and that:

"...[It] is protective to use conditions that...represent the outer limits of credibility or beyond..." [Tr. 106]

CURE's hydrologist reiterated this when he said:

"It's those high values that are most important in doing these kinds of analyses, because they may represent the fast flow paths." [Tr. 526]

112. NMED also claimed that using the most conservative assumption for hydraulic conductivity would be unreasonable because it would be representing "...a very circuitous route for a flow path through a more permeable lithology." [Tr. 820-821]

113. This statement seems to assume that because the Upper Dockum is described as having "[m]udstone and siltstone bodies [that] are very lenticular and are found to pinch out abruptly" [Permit Att. H, p. 6] that somehow there would be enough low- permeability mudstone to block the flow of fluids through the more permeable siltstone bodies. However, 70 percent of the Upper Dockum unit is comprised of siltstones so it would not be difficult for a contaminant flow path to find a fairly direct route through a more permeable lithology. [Permit Att. H, p. 6]

114. Applicant's Cross-section 3.3 shows several thousand feet of "...an uninterrupted high permeability unit...along the contact between the Upper and Lower Dockum." [Tr. 1149-1150]

Applicant also states that:

"The fluvial nature of the Upper Dockum Unit has led to the scouring of channels into the underlying Lower Dockum Unit..." [Permit Att. H, p. 6]

Yet, the possibility of fast flow paths through high conductivity units along the Upper and Lower Dockum interface was also ignored in contaminant flow modeling.

115. These buried stream channels would be likely pathways for saturated transport of contaminants from the site. Contaminants also would be likely to move more quickly than the Applicant has calculated through such a continuous, high permeability pathway. [Tr. 1150-1151]

116. Applicant has also ignored the possibility of fast flow paths through fractures in contaminant transport calculations. [see above]

117. By not using the highest value found for hydraulic conductivity in transport modeling, Applicant has not maximized liquid migration rates and has ignored a reasonable interpretation of the geology at the site which would include fast flow paths through fractures and buried stream channels. [Tr. 570]

118. The regulations require Applicant to prove that there will be no liquid migration from the landfill or the surface impoundment during the operational life of the facility and the post-closure care period. NMAC 20.4.1.500 (incorporating 40 CFR §264.90(b)(4))

119. Applicant has interpreted this to mean that the ground-water monitoring waiver regulations only require a showing that there is no potential for migration of leachate to the uppermost aquifer for 60 years: 30 years for the operational period plus 30 years for the post-closure period anticipated in the Draft Permit. [Tr. 202, 510, 1021; Permit Att. P, pg. 1]

120. However, The 30 year period for the post-closure period is only an anticipated starting point; since the Secretary can extend the post-closure care period if necessary to protect human health and the environment.

121. The Secretary of the Environment Department can also impose conditions on the Draft Permit under regulations that require that each permit contain terms and conditions necessary to protect human health and the environment.

122. The Secretary has granted Applicant a Groundwater Monitoring Waiver and in lieu of monitoring the uppermost aquifer, is requiring vadose zone monitoring which he has determined is more appropriate and more protective of human health and the environment. [Permit, Part 7, pp. 1-2]

123. NMED has made the Vadose Zone Monitoring System (VZMS) a condition of the Permit with all the compliance requirements of any other permit condition. [NMED Exhibit A, Vadose Zone Monitoring, pp. 1-2]

124. The VZMS is a system of 10 wells designed to monitor saturated flow in the vadose zone within the proposed facility boundary. [Tr. 437-438; NMED Exhibit A, Vadose Zone Monitoring, p. 11]

125. NMED claims that the VZMS "...is designed to ensure the earliest possible detection of contaminant leakage..." [NMED Exhibit A, Vadose Zone Monitoring, p. 8]

126. However, as leakage from the landfill and surface impoundment first moves into the underlying geologic units, it will be moving as unsaturated flow. Only much later, after large amounts of liquid have built up in the geologic units, will saturation occur and the leakage begin to flow as free liquids. [Tr. 1148]

127. Since a monitoring well system cannot detect fluids moving as unsaturated flow in the vadose zone, a monitoring well system will not ensure the earliest possible detection of contaminant leakage. [Tr. 437-438, 1148-1149]

128. NMED admits this when they stated during the hearing that:

"...for **significant** amounts of leakage from any of the regulated units,... this vadose zone monitoring system most certainly will detect those releases." (*emphasis added*) [Tr. 809]

They also said that:

"There's monitoring wells along the eastern boundary of the landfill to detect any fluid that might--any **significant** amounts of fluid, **saturated** conditions generally accumulating on top of the contact between the Upper and Lower Dockum as close to the landfill as possible." (*emphasis added*) [Tr. 818-819]

129. NMED also admitted that equipment especially designed to monitor unsaturated flow might detect leaks into the vadose zone earlier than wells would. [Tr. 818]

130. Unsaturated flow monitoring with appropriate instruments is the type of monitoring that is designed to ensure the earliest possible detection of contaminant leakage in the vadose zone. By the time contaminant releases could be detected with a well system, they may have moved far beyond the facility boundary, making mitigation of those releases far more difficult, less assured, and more expensive than necessary.

131. Early detection of the release of leachate is critical because the landfill and surface impoundment liners cannot be counted on to contain contaminants and fluids in the long run--or

possibly even in the short run. Geomembranes and geosynthetic products have only been in common use in covers and liners for 20 or 30 years and no one has the experience to say how long those liners will last. [Tr. 235-236]

132. Applicant cannot guarantee that the liners in the surface impoundment and landfill will not leak and Applicant's best estimate is that the liners will last 50 to 100 years. [Tr. 228, 235] Although this may be sufficient for the surface impoundment, fifty years is less than the operational and anticipated post-closure periods of 60 years for the landfill; and 100 years is far less than the 800-year contaminant transport limit that NMED imposed for the Ground-Water Monitoring Waiver.

133. Studies of liner durability have shown that the majority of primary liners leak because of manufacturing or installation defects or deterioration. The EPA literature on geosynthetic membranes in liners and covers notes that most have pinhole manufacturing defects when they leave the factory. [Tr. 444-445] In the presentation *Landfills Leak*, Dr. Dennis Williams stated that:

"Based on the scientific literature, it is well documented that landfill liners will eventually leak. Geomembrane-lined landfills are a relatively new technology, and as a result, the number of documented cases through double-lined landfills is still being quantified...My literature research identified at least 34 documented cases of leakage through modern landfill liner systems." [CURE, Exhibit 5]

Dr. Williams went on to describe case after case of leakage.

134. Other types of liners leak as well. One local resident has experience with oilfield liners of all kinds and says that in 40 years he has yet to see any that did not leak. [AR 01-069]

135. With good reason, evidently, no manufacturers will guarantee their liners against leakage, though some will offer limited warranties against defects in material and workmanship. Warranties don't go beyond 20 years, however, and some especially exempt the warranty from the effects of destructive chemicals. [Tr. 446]

136. HDPE liners, the type planned for the surface impoundment and the landfill, are susceptible to damage by many of the chemicals that are proposed to be put into those

regulated units. [Tr. 445] This leads to the question of whether the materials specified in Applicant's liner design and the liner design itself are protective of human health and the environment. Applicant has not satisfactorily answered this question.

137. Theoretically the sumps beneath the landfill and surface impoundment should be the first place that leachate appears where it could be monitored. [Tr. 544] However, since there can be no guarantee that leaks will not develop in the sides of the liners, leachate could move horizontally out of these regulated units without ever reaching the sumps. [Tr. 544-545]

138. Applicant claims that not much leachate will be developed after the cover has been put on the landfill. [Tr. 252] But since geosynthetic products have only been regularly used in landfill covers for 20-30 years, it is impossible to know how much they will leak after closure and therefore how much precipitation will infiltrate the landfill and create leachate 50 or 60 or 800 years from now.

139. Although Applicant seems to have confused this permitting process somewhat with that for air quality permits, Applicant does admit that when modeling exposure information, EPA's approach is to assume an additive response. [P. Log No. 26(d), p. 2] Applicant also says that both the impacts of the proposed facility and neighboring facilities should be considered for criteria pollutants such as particulates. [P. Log No. 26(e), p. 2]

140. NMED itself established a policy that carcinogenic risk should be based on the total individual risk associated with releases from a treatment, storage and disposal facility when they relied on EPA Region 6 Risk Management Addendum, *Draft Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities* (EPA-R6--98-002, July 1998) to impose conditions related to exposure information on the WIPP treatment, storage and disposal facility.

141. Although Applicant did provide limited exposure information concerning operational and accidental releases of volatile organic compounds (VOCs) from the proposed facility, Applicant did not include all reasonably foreseeable potential releases from both normal operations and accidents as required by the regulations at 40 NMAC 4.1.1.900 (incorporating

CFR 270.10(j)(1)(i)) Nor did Applicant describe all potential pathways of human exposure as required by 40 NMAC 4.1.1.900 (incorporating CFR 270.10(j)(1)(ii))

142. The Draft Permit allows the proposed facility to accept PCB-contaminated liquids, soils, and bulk remediation waste [Permit Part 2.4.1.b(i), (ii) and (iii)] and Applicant admits that the proposed facility will accept ash from the incineration of hazardous waste. [AR 94-002, Response No. 2]

143. Applicant provided no comprehensive information on exposures from PCBs and no information at all on exposures from particulate releases even though Applicant itself stated that particulate emissions would probably be one of the greatest sources of air emissions from the proposed facility [Tr. 107-108, 121-122; P. Log No. 26(e), p. 3]

144. Although the incinerated ash will have to meet land disposal restrictions under 40 NMAC 4.1.800 (incorporating 40 CFR 268), it could still contain quantities of metallic particulates as underlying hazardous constituents when it arrives at the facility.

145. There is no requirement for ash to be in a container on-site. Ash and contaminated soils will be disposed of in the landfill without containers and could be exposed to winds during at least part of each working day. [Tr. 242-243]

146. Even in a container, contaminated ash could be released in an accident before treatment and spread by high winds.

147. Applicant claimed that using parameters for benzene as the only chemical of concern in modeling calculations was conservative because it was the most carcinogenic and most volatile VOC to be received at the proposed facility. [Tr. 98; P. Log No. 26(d), p. 1] Applicant also claimed that benzene would travel farther than PCBs or metallic particulates because of its volatility and that there would be no effects on the public from any air emissions because the effects from benzene were already below concern at less than 3 miles from the proposed facility. [Tr. 96, 119]

148. In fact, the opposite is true. Benzene evaporates quickly and would dissipate close to the site. Because PCBs do not evaporate so immediately and metal particulates do not evaporate at all, they remain intact and can be transported farther on the wind to impact populations off-

site, even 25, 30 or more miles from the proposed facility. [Tr. 117; AR 01-122: *To the Ends of the Earth*, pp. 88-89, 94, 97-98; *Toxic Metal Syndrome*, pp. 93, 167] Applicant's own modeling shows that effects from air releases can even be greater farther from the site than closer-by, depending on a variety of factors including type of release, terrain, and meteorology. [P. Log No. 26(e), p. 7]

149. Because topsoil in the area is known to contain lead and arsenic; construction, transportation and operations at the proposed facility could lead to toxic dust releases. [Tr. 770] However, no investigation has been done on background levels of these toxic particulates in the soils, nor have their potential effects been added to Applicant's exposure information. [Tr. 107-108, 121-122, 242-246]

150. Although landfill fires are a common occurrence in the waste disposal industry, and although construction debris and other flammable materials will be allowed in the landfill, Applicant also did not include any exposure information, for either acute or chronic releases to the atmosphere from fires at the proposed facility. [Tr. 242]

151. The Draft Permit states that winds in the area are known to blow up to 40 mph, but this is not a conservative figure. [Permit Att. A.1.2, p. 4] Local knowledge describes "...winds blowing up to 60 miles an hour on occasion..." which could cause hazardous dust and debris to blow into vehicles travelling U.S. Highway 380, 4 miles north of the site. [AR 96-031, Item No. 3; Permit Att. A.1.1.9, p. 3] Contamination could also reach travelers at the rest area north of the proposed facility. [AR -01-130]

152. There are no plans to use temporary wind screens and fences near the landfill to capture blowing debris as Applicant agreed to in its response to NMED's 3/21/97 *Request for Supplementary Information*. Applicant never modeled the effect of airborne releases on these near-by travelers. [Tr. 247-248; 6/3/97; AR 97-016, Comment 121]

153. Applicant did not consider the effects from releases into the soil or groundwater. Perhaps this is because Applicant believes that such releases will never occur or will never reach the accessible environment if they do. Nevertheless, not only could contaminants leak from the surface impoundment or from the landfill, but they could also occur from a liquid spill on-site.

154. Even under Applicant's benzene spill scenario, some of this VOC would probably soak into the soil instead of being immediately volatilized. Other, less volatile compounds would soak into the soil even more.

155. Trichloroethylene (TCE) is a VOC which travels easily in the vadose zone. It is a carcinogen and typically found in landfill leachate so it doesn't immediately evaporate. It takes less than 4 drops of TCE mixed with water in an average sized swimming pool to render that water unfit under drinking water standards. [CURE Exhibit 5] Yet, the effects of a release of TCE into the soil or groundwater were never modeled by Applicant—nor were the effects of a spill or leak into the soil of any other hazardous waste or hazardous constituent.

156. Applicant did not consider the effects from transportation associated with the proposed facility as required by 40 NMAC 4.1.1.900 (incorporating CFR 270.10(j)(1)(i)) either for accidental or chronic releases, including, but not limited to the effects of vehicle emissions, dust and hazardous particulates stirred up by traffic to and from the proposed facility.

157. Applicant's most conservative estimate of traffic volume is 230 highway trips per day by waste haulers and operational vehicles with an additional 50 employee vehicle highway trips per day. Additional traffic generated by operational vehicles that are only used on-site is estimated at 12 units/day, with an unknown amount of on- and off-highway construction vehicle traffic. It is possible that this figure is actually not conservative if the waste receipt volume assumed by the Applicant is low. [Permit att. L.2.1.3, *Engineering Report* and Table 1: *Expected Vehicle Types*]

158. Applicant also did not include potential exposure pathway information about exposure through the food chain. There are over 40 large dairies, a considerable beef-raising industry and numerous crop producing farms in the area, putting the proposed facility site "...in the midst of an area of major impact on the 'food chain.'" [Tr. 755, 761; AR-01-122, p. 1]

159. Although Applicant notes the importance of including the effect from nearby facilities as a parameter when modeling facility release effects on the health of potentially affected populations, they did not, in fact, do so. [P. Log No. 26(e), p. 2]

160. Nearby facilities and development include a mixed-waste treatment, storage and disposal facility at Andrews, Texas; a 'special wastes' landfill at Eunice, New Mexico; petroleum land-farms adjacent to the site; a petroleum refinery at Artesia, New Mexico; a mixed-waste treatment, storage and disposal facility near Carlsbad, New Mexico; and extensive oil and gas development throughout southeastern New Mexico [Tr. 415, 587; CARD Ex. 18]. All of these facilities have associated transportation which also contributes a chronic effect on human health in the area

161. Applicant did not consider population baseline health levels and other parameters that should have been included in any study of exposure from releases. The effect of exposure can be more or less severe depending on variables including, but not limited to, age, nutrition, general health, racial and ethnic background, and access to medical care.

162. Applicant agrees that the area surrounding the facility (Chaves and Lea Counties) has cancer incidence and mortality rates higher than other New Mexico Counties. [(P. Log No. 26(d), p. 3] In fact, these two counties have the highest rate of cancer mortality in the state.

163. The health of residents of this part of New Mexico is the worst in the state in almost every category, but especially bad in respiratory diseases. [Tr. 428; CARD Exhibits 25, 22, and 23] Some of the people whose families are suffering with these very health problems described their situation during the hearing. [Tr. 321-322, 428-429]

164. Knowing the potential effects from all sources and through all pathways as well as knowing the state of health of all potentially affected populations is the only way to address the potential magnitude and nature of human exposure resulting from releases from the proposed facility.

165. NMED did not require Applicant to submit adequate information in order to establish permit conditions to protect human health and the environment. Nor did NMED perform its own exposure modeling and risk assessment as was done while establishing permit conditions for the only other treatment, storage and disposal facility that NMED has permitted in the State.

166. To calculate the potential public exposure adequately, Applicant or NMED would have to establish first, what are the hazardous wastes or hazardous constituents that could be released from the proposed facility including releases from associated transportation to or from the unit; what is the area potentially affected by these wastes or constituents; and what are the various potential pathways of human exposure to these wastes or constituents. Then they would have to establish the background level of hazardous constituents in the soil at the site; the cumulative effects from pollution sources other than the proposed facility on populations in the potentially affected area; and the current state of health of these populations including that of 'sensitive' populations (including, but not limited to children, individuals with poor nutrition and minority populations). Finally, using the above information, they would have to calculate the effects from all the potential releases through all the potential pathways on the various potentially affect populations (including negative disparate impacts on minority populations) in order to establish an adequate description of the potential for public exposure and the potential magnitude and nature of that exposure.

167. Without adequate information on potential human exposure, Applicant cannot prove that facility siting and operations will not present a substantial hazard to human health and the environment.

168. Without establishing terms and conditions to correct this deficiency the Draft Permit is not protective of human health and the environment.

169. Part 2 of the Draft Permit prohibits the proposed facility from accepting hazardous waste from generators located outside of the United States of America.

170. Applicant has interpreted this to mean that wastes generated by United States corporations operating in foreign countries would not be considered foreign wastes and would therefor, not be considered prohibited wastes by the Draft Permit.

171. Counsel for the Applicant asked that the Hearing Officer take judicial notice of several regulations including regulations dealing with imported waste, international agreements concerning those wastes, and imported waste manifests and notices. (40 CFR §262 Subpart F, 40 CFR §262.58, 40 CFR §264.12) [Tr. 254]

## CONCLUSIONS OF LAW

1. NMED, as a recipient of federal financial assistance from EPA, must comply with EPA's Title VI implementing regulations, including issues of environmental justice, in its programs and activities.
2. Under its permitting procedures, NMED had an affirmative duty to ensure that Applicant was in compliance with the EPA's Title VI regulations (including environmental justice issues) prior to issuance of the Draft Final Permit.
3. The fact that this proceeding was conducted under a state statute does not relieve NMED of its Title VI obligations.
4. Federal courts do not hesitate to enforce Title VI against federal, state and local agencies that have violated its anti-discriminatory provisions in the course of carrying out other laws. See, Adams v. Richardson, 480 F.2d 1159,1166 (D.C.Cir., 1973) (*en banc*) (HEW enjoined to begin compliance proceedings against school systems operating in violation of federal statutory requirements. "HEW must not allow federal funds to be supportive of illegal discrimination."). See also, Gatreaux v. Romney, 448 F.2d 731 (7th Cir. 1971); Meek v. Martinez, 724 F. Supp. 888 (S.D. Fla. 1987); Hicks v. Weaver, 302 F. Supp. 619 (E.D. La., 1969).
5. Section 601 of Title VI of the Civil Rights Act of 1964 provides that:

No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. (*emphasis added*) 42 U.S.C. §2000d.

6. Section 602 of Title VI provides:

Each federal agency which is empowered to extend Federal financial assistance to any program or activity, by way of grant, loan, or contract other than a contract of insurance or guaranty, is authorized and directed to effectuate the provisions of section 2000d of this title with respect to such program or activity by issuing rules, regulations, or orders of

general applicability which shall be consistent with achievement of the objectives of the statute authorizing the financial assistance in connection with which the action is taken. 42 U.S.C. §2000d-1.

7. The EPA regulations, promulgated pursuant to this section 602 and codified at 40 C.F.R. §7.10 *et seq.*, contain a general prohibition which explicitly forbids any "program or activity" that receives "EPA assistance" from excluding from participation in, denying the benefits of, or subjecting to discrimination any person on the basis of race, color, national origin or sex. (40 C.F.R. §7.30.)

8. Additionally, Section 7.35 of the EPA regulations include specific prohibitions:

(b) A recipient shall not use criteria or methods of administering its program which have the effect of subjecting individuals to discrimination because of their race, color, national origin, or sex, or have the effect of defeating or substantially impairing accomplishment of the objectives of the program with respect to individuals of a particular race, color, national origin, or sex. (40 C.F.R. §735(b).)

(c) A recipient **shall not choose a site or location of a facility** that has the purpose or effect of excluding individuals from, denying them the benefits of, or subjecting them to discrimination **under any program to which this part applies** on the grounds of race, color, or national origin or sex; or with the purpose or effect of defeating or substantially impairing the accomplishment of the objectives of this subpart. (*emphasis added*) (40 C.F.R. §735(c).)

9. The plain language of the Section 7.35(c) prohibition sets to rest any question of whether the EPA regulations cover the siting or permitting decisions by a recipient of EPA funding (NMED).

10. Moreover, the use of the term 'shall' in EPA 's Title VI regulations imposes a mandatory, not precatory, obligation on NMED to implement its programs and activities in a manner that is in compliance with the EPA regulations, policies and directives.

11. Applicant argued that testimony and evidence in this proceeding should be limited to the permitting requirements specifically set forth in New Mexico state regulations and its administrative code without regard for federal laws, regulations and policies. Such an

argument is not only unpersuasive and fundamentally flawed but, if accepted, would eviscerate Title VI and the implementing regulations adopted by over forty federal agencies.

12. Under Applicants' reasoning, New Mexico could exempt itself from compliance with EPA's Title VI regulations in its permitting decisions merely by failing to adopt regulations that expressly require compliance with Title VI as a condition to obtaining a permit. Such reasoning demonstrates a fundamental failure to understand the genesis and reach of Title VI in EPA-delegated or authorized federal environment programs.

13. The designation of Title VI as spending power legislation was reflected in the legislative history of and has been endorsed by the courts. The linchpin of Title VI applicability is the receipt of EPA funding and requires no state statute or regulation as a predicate for the enforcement of the Act or the regulations. To the extent that recipients of EPA funding (like NMED) are found to have implemented their EPA-delegated or authorized federal environment programs (like NMED's permitting programs) in a manner contrary to Title VI or EPA's implementing regulations, then recipient can be subjected to de-funding. During the Senate debate on Title VI, Senator Humphrey stated that "[n]o recipient is required to accept Federal aid. If he does so voluntarily, he must take it on the conditions on which it is offered." 110 Cong. Rec. 6546 (1964); Senator Ribicoff noted that Title VI rests on the principle that "taxpayers' money, which is collected without discrimination, shall be spent without discrimination." 110 Cong. Rec. 7064 (1964.)

14. Applicant apparently views Title VI *in pari materia* with other federal statutes and thus argues that it is not required to demonstrate compliance with a plethora of federal statutes as a condition to obtaining the permit. That argument is meritorious in so far as an applicant is not required to demonstrate compliance with federal statutes such as the Sherman Act or similar statutes that may or may not be applicable to its conduct during the tenure of the permit. However, that same argument falls short when the statute is Title VI and the program is federally assisted. Title VI was designed to extract a contractual price for the receipt of federal funds and that price is an affirmative duty to stop discrimination. The fact that EPA has determined that Title VI criteria must be considered in permitting decisions places an

affirmative obligation on applicants seeking permits. In contrast to Applicant's relevancy challenge, Title VI-proscribed discrimination strikes at the heart of NMED's permitting process.

15. Applicant next suggests that it is unprecedented for EPA to require that funding recipients include consideration of Title VI criteria (including issues of adverse, disparate impact and environmental justice) in their permitting decisions.

16. To the contrary, EPA addressed the issue in U.S. EPA OCR Select Steel Investigative Report, Administrative Complaint File No 5R-98-R5 ("Select Steel"). That decision discussed the precise question of whether EPA will impose an affirmative obligation on funding recipients to include consideration of Title VI criteria in a permitting decision. According to Select Steel:

Title VI and EPA's implementing regulations set out a requirement independent of the environmental statutes that all recipients of EPA financial assistance ensure that they implement their environmental programs in a manner that does not have a discriminatory effect based on race, color, or national origin. **If recipients of EPA funding** are found to have implemented their EPA-delegated or authorized federal environmental programs (**e.g., permitting programs**), in a manner which distributes the otherwise acceptable residual pollution or other effects in ways that result in a harmful concentration of those effects in racial and ethnic communities, then a finding of adverse disparate impact on those communities within the meaning of Title VI may, depending on the circumstances, be appropriate. (*emphasis added*) (at 28)

17. Although EPA concluded in Select Steel that the operation of the proposed facility would not adversely effect the health of the residents of the surrounding communities, its analysis of the applicable law is instructive. In that case, EPA engaged in a disparate impact analysis, considering, among other things, the adverse effects of the facility on racial and ethnic communities, the proposed facilities emissions, the existing levels of air toxins, community specific health data, and other cumulative environmental burdens.

18. It was incumbent on NMED to follow the Select Steel analysis when it considered Applicant's permit. More specifically, it was NMED's affirmative duty to insure that Applicant

addressed all Title VI issues (including environmental justice concerns) during the permitting process. A breach of that duty, whether for reasons of timidity or lack of vigilance, violated the substantive rights of all persons in the surrounding communities as might fall within the purview of EPA's Title VI regulations.

19. For example, on May 15, 2001, Applicant filed a response with NMED for the purpose of addressing issues that had been raised at the May 4 Public Meeting in Roswell, NM. Among the issues concerning citizens attending the meeting was "environmental justice"(item 15). Applicant's response to the citizens was laconic: "We believe NMED should address this issue." [AR 01-070] The record is silent on any efforts by NMED or Applicant to move forward on the environmental justice issues that concerned citizens who will be impacted directly by the grant of this permit.

20. At the hearing CARD attempted to introduce several EPA Guides and Directives which set forth EPA's interpretation of its Title VI regulations and the obligations imposed on recipients like NMED in the administration of its permitting program. Consideration of these Guides and Directives are not only relevant, but essential to a reasoned decision by the Secretary. (*See, e.g.*, (1) RCRA Public Participation Manual; (2) The Model Plan for Public Participation; The OSWER Environmental Justice Action Agenda; (4) USEPA OSWER Directive No. 9200, 3-17 (9/21/94))

21. Applicant's objection to the introduction of these documents was disingenuous. Again, applicant argued that New Mexico statutes and regulations did not expressly mandate compliance with Title VI regulations and so, *a fortiori*, Title VI issues, including environmental justice, were not relevant to proceedings in New Mexico.

22. For the many reasons stated above, such an argument is absurd and contrary to all the legal precedents developed under Title VI law. Its continued assertion of such a position suggests Applicant believes a crevice might be found in New Mexico in which a new species of Title VI legal flora might find nourishment. Instead of abetting such flawed legal analysis, NMED would be well advised to follow the precedents developed under Title VI and EPA's Regulations, Guides and Directives.

23. Even so, the Hearing Officer accepted Applicant's position that EPA's Title VI regulations and policies were not applicable since "...there isn't a provision in the state permitting procedures, ...which are the procedures under which this permit would be issued." [Tr. 32]

CARD's testimony was excluded and allowed in the record only as an offer of proof.

24. To support that decision, the Hearing Officer commented: "...I don't think that the Title 6 arguments, your discrimination arguments, would further impact arguments and survive a recent Supreme Court decision...." [Tr. 39]

25. Reliance on the recent Supreme Court decision, Alexander v. Sandoval, 121 S. Ct. 1511 (2001), for such a proposition is a misreading of the court's opinion. In that case, the court addressed a single issue:

The petition for writ of certiorari raised, and we agreed to review, only the question posed in the first paragraph of this opinion: whether there is a private cause of action to enforce the regulation. (at 1515)

The court found that Title VI did not create a freestanding private right of action to enforce regulations promulgated under §602. (at 1523)

26. Nothing in this permit proceeding implicated or referred to the existence or non-existence of a private cause of action in a judicial forum.

27. In opposite to the view expressed by the Hearing Officer, the Supreme Court's opinion did not even hint at the invalidity of Title VI implementing regulations. In fact, a careful reading of Sandoval, *supra*, reveals that the court assumed the validity of the Section 602 implementing regulations:

[W]e assume for purposes of this decision that §602 confers the authority to promulgate disparate-impact regulations. (at 1519)

28. In another attempt to shore up the exclusion decision, the Hearing Officer looked to a recent decision by a New Jersey U.S. District Court Judge (on issues of environmental justice and EPA's Title VI regulations). She commented:

"...Twice the Third Circuit has undone what he [the District Court Judge] did. And so while there was about a week there where it was pretty exciting for environmental justice advocates, **I think the door's been closed there.**" (*emphasis added*) Tr. 39]

29. That statement erroneously characterized the proceedings and two opinions issued by the Court in South Camden Citizens in Action v. New Jersey Department of Environmental Protection, 145 F. Supp.2d 446 (D.N.J., 2001) (South Camden Citizens I) and in South Camden Citizens in Action v. New Jersey Department of Environmental Protection, 145 F. Supp.2d 505 (D.N.J., 2001) (South Camden Citizens II).

30. In South Camden Citizens I Judge Orlofsky granted plaintiff's application for a preliminary injunction and the request for a declaratory judgment that the New Jersey Department of Environmental Protection ("NJDEP") violated Title VI of the Civil Rights Act by failing to consider the potential adverse, disparate impact of a cement plant's operations on individuals based on their race, color or national origin as part of NJDEP's decision to permit the proposed facility. The decision was issued on April 19, 2001.

31. Like Sandoval, *supra*, the plaintiffs in South Camden Citizens I, *supra*, claimed that a private cause of action could be implied under Title VI Â§602 implementing regulations. In previous decisions the Third Circuit had opined that such an implied right of action existed under Title VI and NJDEP did not contest the existence of such a private right of action during the course of the proceeding. Thus, Judge Orlofsky followed the law of the Third Circuit in holding that plaintiffs could seek preliminary injunctive relief against NJDEP. (South Camden I at 474).

32. Five days later, the U.S. Supreme Court issued its opinion in Sandoval, *supra*, holding that Title VI did not provide an implied private right of action to enforce regulations promulgated by federal agencies pursuant to Â§602.

33. Immediately after the issuance of Sandoval, *supra*, (without any intervention by the Third Circuit) Judge Orlofsky held a conference with counsel and requested supplemental briefs. On May 10, 2001, the Judge issued the Supplemental Opinion in South Camden Citizens II.

34. In the Supplemental Opinion, the court followed the Sandoval holding that Section 602 had not created a free standing private right of action. Judge Orlofsky then analyzed other civil rights statutes and found that a claim for disparate impact discrimination in violation of EPA's Â§602 implementing regulations could be asserted in a Section 1983 action. (42 U.S.C. §1983) (South Camden Citizens II at 524-546).

35. The South Camden Citizens II Defendants obtained a Stay pending appeal as to the operation of the plant. However, the court refused to stay the order that NJDEP assess adverse disparate impact based on the totality of the circumstances (existing health status and cumulative environmental burden on the community). An appeal was taken on these issues, oral arguments were heard by a three judge panel and the parties are awaiting a decision from the 3rd Circuit Court of Appeals

36. While instructive on the jurisprudence of private causes of action under federal civil rights statutes, the Supreme Court's decision in Sandoval, supra, and the issues on appeal in South Camden Citizens II, supra, have absolutely no bearing on the issues in dispute in this proceeding. At best, it was quixotic to rely on these decisions as supportive of the proposition that testimony on environmental justice was not relevant in a hearing on the issuance of a permit.

37. In its testimony, CARD asserted that EPA's Title VI implementing regulations impose an affirmative duty on NMED (as a funding recipient) to include consideration of Title VI criteria in its permitting decisions and to require that Applicant address these issues. This is a core issue that bristles with relevance in a proceeding to determine whether a permit should be granted to an applicant.

38. The exclusion of all environmental justice testimony was erroneous and resulted in the denial of a fair hearing. A fair hearing requires the admissibility of all relevant evidence. In circumstances such as this, where the admissibility of testimony and evidence might affect the overall assessment of the ultimate decision, courts do not hesitate to remand for a new hearing or partial rehearing. See, e.g., N.L.R.B. v Process & Pollution Control Co., 588 F.2d 786 (10th Cir., 1978)

39. CARD's testimony was offered for the purpose of demonstrating that significant issues of environmental justice were implicated in this permitting decision and that these important issues were never addressed by NMED or Applicant.

40. Specifically, no consideration was given to: i) the racial and ethnic composition of the neighboring communities (which, in fact, include high percentages of people of color, children, etc.); ii) the impoverished economic conditions existing in neighboring communities; iii) the pre-existing poor health of the residents of neighboring communities (including high rates of asthma and other respiratory ailments); iv) the clustering of existing industrial and waste facilities near the proposed facility; and v) the cumulative environmental burden borne by the impoverished minority communities.

41. In this proceeding CARD did not have the burden of demonstrating Applicant's non-compliance with the EPA regulations. The burden was on the Applicant to demonstrate that it was in compliance with all applicable state and federal laws and regulations. (NMAC 20.4.1.901A(11)).

42. And it was NMED's affirmative duty to ensure that Applicant had addressed all issues under the Title VI regulations (including issues on environmental justice) prior to issuing the Completeness Determination and the Draft Final Permit.

43. In the absence of any evidence in the administrative record or in this hearing which demonstrates that Applicant or NMED considered the totality of circumstances surrounding the siting and operation of the proposed facility, the granting of this permit will violate EPA's regulations promulgated to implement Title VI of the Civil Rights Act of 1964.

44. In accordance with these Findings of Fact and Conclusions of Law, the Secretary of NMED should disapprove the permit or in the alternative remand the matter with specific instructions that Applicant and NMED prepare an adverse disparate impact assessment of the facility's operations pursuant to EPA's Title VI implementing regulations and applicable EPA Guides and Directives.

45. 40 CFR §25.3(a) says that:

"...State...agencies carrying out activities described in §25.2(a) shall provide for, encourage, and assist the participation of the public."  
(*emphasis added*)

40 CFR §25.3(b) further defines public participation to include:

"...providing access to the decision-making process, seeking input from and conducting dialogue with the public, assimilating public viewpoints and preferences and demonstrating that those viewpoints and preferences have been considered...Public agencies should encourage full presentation of issues at an early stage...should make special efforts to encourage and assist participation by citizens representing themselves and by others whose resources and access to decision-making may be relatively limited. (*emphasis added*)

46. The objectives of State agencies are described as being:

- (1) To assure that the public has the opportunity to understand official programs and proposed actions, and that the government fully considers the public's concerns;
- (2) To assure that the government does not make any significant decision on any activity covered by this part without consulting interested and affected segments of the public;
- (3) To assure that government action is as responsive as possible to public concerns;
- (4) To encourage public involvement in implementing environmental laws;
- (5) To keep the public informed about significant issues and proposed project or program changes as they arise;
- (6) To foster a spirit of openness and mutual trust among...States...and the public; and
- (7) To use all feasible means to create opportunities for public participation, and to stimulate and support participation. 40 CFR §25.3.(c)(1) through (7)

47. The State is directed by the regulations that:

Public notice of activities described in paragraph (a)(1) of this section shall be given by the following methods:...[a]ny other method reasonably calculated to give actual notice of the action in question to the persons potentially affected by it... (*emphasis added*) 40 CFR §124.10(c)(4)

48. EPA's Final Rule on Expanded Public Participation encouraged permitting agencies and applicants, to:

"...make all reasonable efforts to ensure that all segments of the population have an equal opportunity to participate in the permitting process and have equal access to information in the process. These means may include, but are not limited to, multilingual notices and fact sheets, as well as translators, in areas where the affected community contains significant numbers of people who do not speak English as a first language." (*emphasis added*) [Federal Register: December 11, 1995 (Volume 60, Number 237) p. 63420]

49. NMED was informed early on and throughout the comment period by literally hundreds of individuals that much of the potentially affected population was poor, dis-enfranchised and that many had a limited or no understanding of English. NMED did not make special efforts to encourage and assist participation by these people when it allowed access to even the most basic permit documents to remain so difficult for those in the facility area. Even worse, sometimes NMED actively withheld information and blocked the efforts of segments of the public when they tried to participate. The Department seemed confused by area residents' desire to participate and unable to understand why the public in the southeast would want complete sets of permit documents and information about the proposed facility that they could understand.

50. Yet, because the language of the regulations at 40 CFR §25.3(a) uses the word 'shall,' the State has an affirmative obligation to "...provide for, encourage, and assist the participation of the public."

51. Despite continual requests, NMED and Applicant did not provide multilingual notices, Fact Sheets, or other information about the facility, or translators until late in the process. Translators were not provided for presentations until the day the Hearing opened. Again, under 40 CFR §124.10(c)(4) the State has an affirmative obligation to use multilingual notices and Fact Sheets *etc.* since that is the only way a significant number of potentially affected people can receive actual notice.

52. NMED did not follow the guidance described in EPA's Final Rule when it was told early on that the Hispanic community needed more information and help in creating informed public comment but did not respond in an adequate or timely manner. NMED's single request to

Applicant to provide information in Spanish during the public information meetings was never followed up and was hypocritical since the Department itself was not providing any Fact Sheets in Spanish at the time. When NMED finally did provide a Spanish Fact Sheet, it had an affirmative duty to seek other Spanish speakers in the facility area who would benefit from receiving it, but the Department did not follow through on this.

53. NMED encouraged Applicant to give insufficient notice of public information meetings and then allowed Applicant to use those meetings to harass and misinform the public about the proposed facility. NMED itself did not encourage public involvement and did not foster a spirit of openness and mutual trust between itself and the public during these meetings when one of its staff was so rude and discouraging at one as to cause a significant portion of the public to leave in disgust.

54. NMED did not make all reasonable efforts to ensure that all segments of the population had an equal opportunity to participate in the permitting process and had equal access to information in that process. NMED did not provide for, encourage and assist participation by the public and especially by the public whose resources and access to decision-making was limited; did not assure that all significant segments of the public had an opportunity to understand the proposed actions under the Draft Permit; was not as responsive as possible to the public's concerns; did not always keep a large segment of the public informed about significant issues and project changes; and did not adequately stimulate and support public participation.

55. Therefore, NMED has not fulfilled its obligations to potentially affected and concerned segments of the public, and has not met the public participation requirements of 40 CFR Chapter I, Part 25 or 40 CFR Chapter I, Part 124. The Secretary should disapprove the permit or in the alternative remand the matter with specific instructions that Applicant and NMED fully meet their obligations under 40 CFR Chapter I, Part 25 and 40 CFR Chapter I, Part 124.

56. Although the purpose of the Hazardous Waste Act is to "...confer optimum...economic and social well-being on its inhabitants..." there is information in the Administrative Record or

in the transcript to show that the facility might actually decrease the economic and social well-being of local inhabitants.

57. Applicant has shown that the facility will offer some slight economic benefit through a number of jobs it will add to the local economy. However, Applicant has never addressed the negative economic effects that the proposed facility might have on the food-producing area that surrounds the site.

58. During the hearing process, there were serious and continuing problems with other documents that should have been part of the Administrative Record.

59. Among these problems, as described in CARD's Motion to Re-Open the Hearing to Add Documents to the Administrative Record, some documents were missing altogether from the Record including the *Administrative Completeness Request for Supplementary Information* of March 5, 1998 and the *Technical Completeness Determination* which NMED also never actually filed before issuing the Draft Permit.

60. In a post trial telephonic conference on December 4, 2001, CARD argued that the Administrative Record was not complete since, among other things, it did not include a Completeness Determination document as required by NMED's regulations. (NMAC 20.1.4.200 A & F). NMED acknowledged that the document was not in the Administrative Record but asserted that such a document was not necessary. NMED stated that it would rely on the testimony at the hearing as evidence of compliance with the regulation.

61. NMED's regulations provide:

A proceeding under this Part shall be initiated by the filing of a Completeness Determination, Hearing Determination or Petition.  
(NMAC 20.1.4. 200 A)

In making a Completeness Determination, the Division shall consider only whether the Applicant...has addressed all issues required to be addressed by the Act, the Regulations, and this Part, and not whether the Application...appears to be approvable. (NMAC 20.1.4. 200 F).

62. It is a well settled rule that an agency's failure to follow its own regulations is reversible error. NMED is bound by its regulations that require the issuance of a Completeness

Determination and its failure to do so should have been noticed by NMED and the Hearing Officer at the outset of the hearing. The requirement of a Completeness Determination was clearly designed to benefit the public and provide a procedural safeguard that the Applicant had addressed all issues required by law and regulation. See, Carter v. Sullivan, 909 F.2d 1201, 1202 (8th Cir. 1990) ["This court has previously held that an agency's failure to follow its own binding regulations is a reversible abuse of discretion..."]; Montilla v. INS, 926 F2d 162 (2d Cir. 1991) [agency cannot issue a regulation affecting individual liberty or interest and then with impunity ignore the regulation as it sees fit.]; St. Elizabeth Community Hosp. v. Heckler, 745 F.2d 587 (9th Cir. 1984) [An agency determination, which failed to consider factors articulated in the agency regulation as criteria to consider, was rejected as arbitrary and capricious.]; Confederated Tribes and Bands of the Yakima Indian Nation v. FERC, 746 F.2d 466, 474 (9th Cir. 1984); Union of Concerned Scientists v. Nuclear Regulatory Commission, 711 F2d 370 (D.C. Cir. 1985) [NRC's interpretation of its own regulations is not entitled to deference when that interpretation flies in the face of the language of the regulations themselves.]

63. The Secretary of the Environment Department is allowed to waive the ground water monitoring requirements if Applicant demonstrates that:

"...there is no potential for migration of liquid from a regulated unit to the uppermost aquifer during the active life of the regulated unit (including the closure period) and the post-closure care period specified under §264.117. NMAC 20.4.1.500 (incorporating 40 CFR §264.90(b)(4)).

The regulations require the owner or operator to:

"...base any predictions made under this paragraph on assumptions that maximize the rate of liquid migration." NMAC 20.4.1.500 (incorporating 40 CFR §264.90(b)(4))

64. Applicant has interpreted this to mean that the ground-water monitoring waiver regulations only require a showing that there is no potential for migration of leachate to the uppermost aquifer for 60 years: 30 years for the operational period plus 30 years for the post-

closure period anticipated in the Draft Permit. [Tr. 202, 510, 1021; Permit Att. P, pg. 1]

65. The regulations do say that:

"Post-closure care for each hazardous waste management unit...must begin after completion of closure of the unit and continue for 30 years after that date..." NMAC 20.4.1.500 (incorporating 40 CFR §264.117(a)(1))

66. However, the 30 year figure is only an anticipated starting point. At NMAC 20.4.1.500 (incorporating 40 CFR §264.117(a)(2)(ii)) the Secretary is allowed to extend the post-closure care period if necessary to protect human health and the environment. This can occur even if there is only the potential for migration of harmful levels of hazardous wastes but no actual migration has yet occurred.

67. Because it is impossible to predict whether or not the post-closure care period will be extended at this stage in the permit process, NMED's requirement that Applicant shows no contaminant migration to the uppermost aquifer for 800 years is certainly reasonable, though perhaps a little short to be truly conservative.

68. Applicant, however, did not use conservative assumptions for other parameters when calculating contaminant transport times and has not even defined the uppermost aquifer beneath the facility lies.

69. Therefore, the Ground Water Monitoring Waiver granted to Applicant by NMED is not protective of human health and the environment and should be revoked because Applicant did not base its predictions made under NMAC 20.4.1.500 (incorporating 40 CFR §264.90(b)(4)) on assumptions that maximize the rate of liquid migration as required.

70. Even if Applicant knew where the uppermost aquifer was situated and had correctly calculated contaminant transport times, the Vadose Zone Monitoring System described in the Draft Permit is inadequate to protect human health and the environment.

71. The Secretary of the Environment Department is directed by the regulations to impose conditions on the Draft Permit necessary to protect human health and the environment.

NMAC 20.4.1.900 (incorporating 40 CFR §270.32(b)(2))

72. In lieu of groundwater monitoring, the Secretary is requiring vadose zone monitoring which he believes is more appropriate and more protective of human health and the environment. [Permit, Part 7, pp. 1-2] The vadose zone monitoring system has been made a condition of the Permit with all the compliance requirements of any other permit condition. [NMED Exhibit A, Vadose Zone Monitoring, pp. 1-2]

73. NMED admits that groundwater monitoring wells are not explicitly required for vadose zone fluids, but is still requiring a system of wells to monitor the vadose zone at the proposed facility. [NMED Exhibit A, Vadose Zone Monitoring, p. 4]

74. The type of unsaturated flow monitoring appropriate for monitoring vadose zone fluids is described in the regulations at 40 NMAC 4.1.500 (incorporating 40 CFR §264.278) under the requirements for land treatment facility monitoring.

75. At the Waste Isolation Pilot Plant (WIPP), the only other treatment, storage and disposal facility permitted in New Mexico, NMED did not hesitate to use regulations and guidance that were created for somewhat different purposes but were suitable for the situation being considered. [*Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities*, (EPA 530-D-98-001A, July 1998) and *Draft Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities* (EPA-R6-98-002, July 1998)]

76. Although Applicant is not required to monitor the uppermost aquifer, with that exception, the principles of 40 NMAC 4.1.500 (incorporating 40 CFR §264.92) still apply. By the time contaminant releases could be detected as saturated flow, they may well have moved far beyond the point of compliance as described in 40 NMAC 4.1.500 (incorporating 40 CFR §264.95).

77. NMED's Imposed Condition to require the use of monitoring wells to monitor the vadose zone at the site will not detect the earliest releases of contaminants from the regulated units when they are moving as unsaturated flow and is not protective of human health and the environment.

78. Since Applicant has not identified the uppermost aquifer beneath the proposed facility, and has not proven that there is no potential for migration of liquid from a regulated unit to the

uppermost aquifer during the active life of the regulated unit (including the closure period) and the post-closure care period as required by NMAC 20.4.1.500 (incorporating 40 CFR §264.90(b)(4)), Applicant does not qualify for an exemption from any of the requirements of NMAC 20.4.1.500 (incorporating 40 CFR §264.90) and is subject to regulation for releases into the uppermost aquifer under that subpart.

79. Applicant therefore must still provide the following information:

Identification of the uppermost aquifer and aquifers hydraulically interconnected beneath the proposed facility property, including ground-water flow direction and rate, and the basis for such identification.  
NMAC 20.4.1.900 (incorporating 40 CFR §270.14(c)(2))

and must still describe a groundwater monitoring program to be implemented that meets the requirements of NMAC 20.4.1.500 (incorporating 40 CFR §264.97)

80. Since hydrological and geological characterization information in the Administrative Record (including the Application and in the Ground Water Monitoring Waiver Request) is inadequate for the purposes of NMAC 20.4.1.500 (incorporating 40 CFR §264.90(b)(4)), it also does not meet the requirements of NMAC 20.4.1.900 (incorporating 40 CFR §270.14(c)(2)).

81. NMED's imposed condition of requiring vadose monitoring with wells is not protective of human health and the environment and does not correct these deficiencies. The Application is therefore technically incomplete and the Secretary should disapprove the permit.

82. 40 NMAC 4.1.900 (incorporating 40 CFR §270.10(j)(1)) requires any permit application for a facility that stores, treats or disposes of hazardous waste in a surface impoundment or a landfill to be accompanied by information on the potential for the public to be exposed to hazardous wastes or hazardous constituents released from the facility, including potential releases from both normal operations and accidents. The application must also include information on releases associated with transportation, potential exposure pathways and the potential magnitude and nature of human exposure resulting from such releases. 40 NMAC 4.1.900 (incorporating 40 CFR §270.10(k))

83. Applicant's abbreviated study of potential human exposure to hazardous wastes or hazardous constituents released from the proposed facility does not meet the burden of proof under NMAC 20.4.1.901(E)(6)(a) necessary to prove that facility siting and operations are protective of human health and the environment.

84. Although the Application can be considered complete notwithstanding the failure to provide adequate exposure information under 40 NMAC 4.1.900 (incorporating 40 CFR §270.10(j)(1)), at some point human exposure must be addressed if the proposed facility is to be truly protective of human health. 40 NMAC 4.1.900 (incorporating 40 CFR §270.10(k) allows NMED to require Applicant to submit adequate exposure information to establish permit conditions under 40 NMAC 4.1.900 (incorporating 40 CFR §270.32(B)(2)).

85. NMED did not require Applicant to submit this information. Nor did NMED perform its own exposure modeling and risk assessment as it did while establishing permit conditions for the other treatment, storage and disposal facility permitted in the State.

86. The regulations require exposure information to address:

Reasonably foreseeable potential releases from both normal operations and accidents at the unit, including releases associated with transportation to or from the unit; NMAC 20.4.1.900 (incorporating 40 CFR §270.10(j)(1)(i))

The potential pathways of human exposure to hazardous wastes or constituents resulting from the releases described under paragraph (j)(1)(i) of this section; and NMAC 20.4.1.900 (incorporating 40 CFR §270.10((1)j)(ii))

The potential magnitude and nature of the human exposure resulting from such releases. NMAC 20.4.1.900 (incorporating 40 CFR §270.10(j)(1)(iii))

87. Applicant's exposure information does not adequately address any of these requirements and does not address releases associated with transportation at all. Applicant only describes one type of contaminant release (VOC release) through one possible pathway (air-born). Applicant cannot adequately describe the magnitude and nature of even this type of exposure

because information on other additive releases and the current state of the affected population's health are not included.

88. Without adequate information on potential human exposure, it is impossible for Applicant to meet the burden of proof under NMAC 20.4.1.901(E)(6)(a) necessary to show that facility siting and operations will not present a substantial hazard to human health and the environment.

89. Without including terms and conditions to correct this deficiency under NMAC 20.4.1.900 (incorporating 40 CFR §270.32(b)(2)) the Draft Permit is also not protective of human health and the environment and the Permit should be disapproved.

90. The Draft Permit, Part 2 at 2.3.1 states that:

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 and receive a modification to this Permit in accordance with NMAC 20.4.1.900 (incorporating 40 CFR 270.41 and 270.42)

91. Applicant has interpreted this to mean that wastes generated by United States corporations operating outside of the United States would not be considered foreign waste and would not be prohibited by this subpart of the Draft Permit. [Tr. 217-218]

92. During the Hearing, Applicant requested that judicial notice be taken of several regulations dealing with imports of hazardous waste including 40 CFR §262 Subpart F, 40 CFR §262.58 and 40 CFR §264.12. [Tr. 254-255]

93. 40 CFR §264.12 requires in part that:

The owner or operator of a facility that receives hazardous waste from an off-site source (except where the owner or operator is also the generator) **must inform the generator in writing that he has the appropriate permit(s)** for, and will accept, the waste the generator is shipping. (*emphasis added*) NMAC 20.4.1.500 (incorporating 40 CFR §264.12(b))

94. In its Final Rule of August 10, 2001: *New Mexico: Final Authorization of State Hazardous Waste Management Program Revisions*, the Environmental Protection Agency (EPA) wrote in Supplementary Information C: *What Is the History of New Mexico's Final Authorization and It's Revisions?* that:

The State of New Mexico also has adopted the regulations for Import and Export of Hazardous Waste. However, the requirements of the Import and Export regulations will be administered by EPA and not the State because the exercise of foreign relations and international commerce powers is reserved to the Federal government under the United States Constitution. Therefore, **the State of New Mexico is not seeking authorization for this rule.** (*emphasis added*) Federal Register: August 10, 2001 (Volume 66, Number 155, p. 42141)

95. This rule is further clarified at Supplementary Information H in answering the question Who Handles Permits After This Authorization Takes Effect?:

The State of New Mexico will issue permits for all the provisions for which it is authorized and will administer the permits it issues...**The EPA will continue to implement and issue permits for HSWA requirements for which New Mexico is not yet authorized.** (*emphasis added*) Federal Register: August 10, 2001 (Volume 66, Number 155, p. 42145)

96. Since the State of New Mexico is not authorized to issue permits for the receipt of imported waste, it is indeed true that under the Final Permit, the Permittee will not be able to accept hazardous waste from a generator located outside of the United States of America, as stated in the Draft Permit—even if that generator is a United States corporation.

97. If the Permittee wishes to receive these imported wastes, the proper procedure is not to apply for and receive a modification to the Final Permit, however. Since EPA has retained the authorization to issue permits for HSWA requirements for which New Mexico is not yet authorized, the proper procedure would be to apply to the EPA for a permit to receive imported wastes at the Triassic Park facility.

98. In accordance with these Findings of Fact and Conclusions of Law, the Secretary of NMED should disapprove the permit or in the alternative remand the matter with specific

instructions that Applicant and NMED prepare an adverse disparate impact assessment of the facility's operations pursuant to EPA's Title VI implementing regulations and applicable EPA Guides and Directives and that Applicant and NMED correct the public participation deficiencies that existed during this permit process.

Respectfully submitted,

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**CERTIFICATE OF SERVICE**

I hereby certify that on December 17, 2001 a copy of FINDINGS OF FACT AND CONCLUSIONS OF LAW was mailed first class or hand delivered to:

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