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NOAH SACHS*

The Mescalero Apache Indians and Monitored Retrievable Storage of Spent Nuclear Fuel: A Study in Environmental Ethics

ABSTRACT

The proposal of the Mescalero Apache Indians of New Mexico to host a nuclear waste storage facility raised difficult questions about political sovereignty, environmental justice, and democratic consent. While the proposal had numerous drawbacks and deserved to be opposed, many of the arguments used against it were conceptually flawed and paternalistic. Arguments decrying bribery of a poor community were particularly weak, while those criticizing targeting of Indian tribes by the United States government and coercion of tribal members by the Mescalero leadership had more merit. The core ethical arguments should be separated from the rhetoric so that policy makers, Native Americans, environmentalists, and industry leaders can better evaluate similar projects in the future.

INTRODUCTION

In April 1996, the five year effort of the Mescalero Apache Indians of South-Central New Mexico to host a Monitored Retrievable Storage (MRS) facility for spent nuclear fuel was derailed due to contract disputes between the Tribe and a consortium of nuclear utilities. The Mescalero leadership sought the MRS, an above-ground facility intended for interim storage of over 20,000 metric tons of spent nuclear fuel for up to 40 years,¹ for the money and jobs the project would have brought to the Tribe.

The breakdown in negotiations over the MRS and the apparent end to the project, at least in its current form, provide an opportunity to critically assess the ethical and political controversies surrounding the MRS. Proposals to site incinerators, chemical treatment facilities, and other noxious facilities on native lands are being advanced with

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1. See Elaine Hiruo, *Long-term Financing Decisions Delayed So Utilities, Mescaleros Start Licensing*, NUCLEAR FUEL, July 3, 1995, at 17. Spent nuclear fuel refers to the fuel rods taken out of a nuclear reactor following the process of nuclear fission inside the reactor.

increasing frequency, and the Mescalero case provides important lessons for policy makers as they evaluate similar future proposals involving poor communities. Policy makers, business leaders, and activists need to sort through the heated rhetoric that surrounds such projects in order to identify the core values and principles that are at stake.

From the standpoint of environmental ethics, the Mescalero case was extraordinarily difficult. In the last decade, a consensus has evolved on the need to address issues of environmental justice—the pattern of poor and minority communities being disproportionately harmed by environmental hazards—in assessing environmental projects and their impacts. Many opponents of the Mescalero MRS proposal placed it in the context of the history of oppression of indigenous peoples and the history of Indian involvement in United States nuclear programs. At the same time, the affirmative Mescalero vote in favor of the facility and the substantial sum of money the Mescalero stood to receive change the ethical equation. Value judgments must include a strong presumption that poor communities can weigh costs and benefits for themselves and chart their own future.

This article explores the ethical, political, and technical controversy surrounding the MRS and concludes that while the Mescalero MRS was not in the national interest, many of the arguments used to oppose the facility were conceptually flawed and unduly paternalistic. The economic justice argument that the proposal represented bribery of a poor community was among the weaker arguments against the MRS, whereas arguments that were less frequently voiced were stronger. These more persuasive criticisms included the incompatibility of the MRS with United States spent fuel disposal policy, the federal government's targeting of Indian tribes to host the MRS, the imposition of harms on New Mexico residents who would not be compensated, and the coercive nature of the tribal decision-making process.

Several sections of this article are favorable to the Mescalero MRS project and some are more critical because the article attempts to separate complicated debates into individual arguments in order to assess their merits. While supportive of a community's right to investigate and host hazardous waste projects if it believes such projects will be beneficial to it, this article is critical of the decision-making process in this particular case, as well as of the national policy impacts of the Mescalero MRS. Sorting through the arguments that have been advanced on both sides of the debate is a challenging task. The difficult questions raised by the proposal about procedural and distributional equity, sovereignty and political jurisdiction, and the nature of democratic consent have no easy answers.

HISTORY OF THE MRS PROGRAM

The origins of the Mescalero proposal date back to the Nuclear Waste Policy Act (NWPA) of 1982,² the most important legislation governing present nuclear waste disposal policy. The NWPA mandated that the Department of Energy (DOE) conduct parallel searches in the eastern and western United States for a site for a permanent geologic repository for spent nuclear fuel. It also mandated that the Secretary of Energy begin to dispose of the nation's spent nuclear fuel by January 31, 1998.³ As an interim measure, the NWPA contained a provision for the Secretary of Energy to "complete a detailed study of the need for and feasibility of, and shall submit to the Congress a proposal for, the construction of one or more monitored retrievable storage facilities for high-level radioactive waste and spent nuclear fuel."⁴

In 1987, Congress amended the NWPA to halt DOE's parallel search for a repository and mandated that Yucca Mountain, Nevada be the only site that DOE investigate.⁵ The 1987 NWPA amendments also authorized the creation of the Office of the Nuclear Waste Negotiator (ONWN) within the Executive Office of the President⁶ to "attempt to reach a proposed agreement between the United States and any such State or Indian tribe specifying the terms and conditions under which such State or tribe would agree to host a repository or monitored retrievable storage facility within such State or reservation."⁷ The Nuclear Waste Negotiator was authorized to negotiate a compensation

2. 42 U.S.C. §§ 10101-10270 (1994).

3. See 42 U.S.C. § 10222(a)(5)(B) (1994).

4. 42 U.S.C. § 10161 (b)(1) (1994). In 1985, DOE announced three candidate MRS sites in Tennessee, but the state successfully sued for an injunction barring DOE from submitting the proposal to Congress. After the injunction expired, the state submitted a notice of disapproval to Congress, terminating the proposal. See DOUG EASTERLING & HOWARD KUNREUTHER, *THE DILEMMA OF SITING A HIGH LEVEL NUCLEAR WASTE REPOSITORY* 70-71 (1995).

5. See 42 U.S.C. § 10172 (1994).

6. See 42 U.S.C. § 10242(a) (1994).

7. 42 U.S.C. § 10243(a)(1)(B) (1994). At the time of the 1987 amendments, there were approximately 19,000 metric tons of spent nuclear fuel from civilian nuclear power plants. See Jon D. Erickson et al., *Monitored Retrievable Storage of Spent Nuclear Fuel in Indian Country: Liability, Sovereignty, and Socioeconomics*, 19 AM. INDIAN L. REV. 73, 74 (1994). While the legislation authorized the Nuclear Waste Negotiator to seek hosts for a repository as well as an MRS, in practice the Negotiator focused on the siting of an MRS. See EASTERLING & KUNREUTHER, *supra* note 4, at 71.

package for final acceptance of the MRS facility,⁸ and Congress had to approve any agreement.⁹ Though created in 1987, the position of Nuclear Waste Negotiator went unfilled until 1990.¹⁰

In order to encourage participation, David Leroy, the first Nuclear Waste Negotiator, made study grants available to allow communities to obtain information from whatever source they wished about the benefits and drawbacks of the MRS.¹¹ In October 1991, the Mescalero Apache Tribe was the first among sixteen Indian tribes¹² and four communities¹³ who applied for the initial \$100,000 Phase I study grants from the ONWN.¹⁴ It was the first among eight Indian tribes who applied for Phase II-A funding of \$200,000.¹⁵ Two of the non-Indian communities were interested in proceeding to Phase II-A but were blocked by their state governors.¹⁶ In August 1993 the Mescalero were the first to apply for a Phase II-B grant of \$2.8 million from the ONWN, a grant which carried the expectation of sustained discussions with the ONWN.¹⁷ Before the grant was disbursed,

8. As a baseline, the NWSA authorized the host state or tribe to receive \$5 million per year prior to the shipment of waste and \$10 million per year during the operational phase of the MRS. See 42 U.S.C. §10173(a) (1994). The Negotiator was free to negotiate a package in excess of these figures. See EASTERLING & KUNREUTHER, *supra* note 4, at 72. While the Act authorized negotiations only with states or tribes, the Negotiator allowed local jurisdictions to apply for study grants under the condition that their state governor would have veto power over the grant application. See *id.* at 72.

9. See 42 U.S.C. § 10243(d)(3)(A) (1994).

10. See EASTERLING & KUNREUTHER, *supra* note 4, at 72.

11. See *id.*

12. Phase I applications were received from: Mescalero Apache (NM), Chickasaw Indian Nation (OK), Prairie Island Indian Community (MN), The Sac and Fox Nation (OK), Yakima Indian Nation (WA), Skull Valley Band of Goshute Indians (UT), Alabama/Quassarte Tribe (OK), Eastern Shawnee Tribe (OK), Lower Brule Sioux Tribe (SD), Ponca Tribe (OK), Ft. McDermitt Paiute Shashone [sic] Tribe (NV and OR), Tetlin Village Council (AK), Akhiok-Kaguyak Inc./Akhiok Traditional Council (AK), Apache Development Authority (OK), Absentee Shawnee (OK), and Caddo Tribe (OK). See Erickson et al., *supra* note 7, at 81.

13. The non-Indian communities were Grant County (ND), Fremont County (WY), San Juan County (UT), and Apache County (AZ). *Id.*

14. The Mescalero had previously examined a nuclear waste storage proposal in response to a DOE request for a host for a temporary, low-level radioactive waste storage facility associated with the Waste Isolation Pilot Plant near Carlsbad. See *Storage of Spent Nuclear Fuel: Hearing of the House Oversight and Investigations Subcomm., House Natural Resources Comm., 103d Cong., 2d Sess. (1994) [hereinafter Fred Peso Testimony]* (statement of Fred Peso, Mescalero Tribe Vice President).

15. Mescalero Apache (NM), Skull Valley Goshute (UT), Ft. McDermitt Tribe (OR and NV), Ponca/Tonkawa (OK), Eastern Shawnee Tribe (OK), Prairie Island Indians (MN), Ute Mountain Ute Tribe (CO), Miami Tribe (OK). See Erickson et al., *supra* note 7, at 81.

16. The non-Indian communities were San Juan County (UT) and Fremont County (WY). See EASTERLING & KUNREUTHER, *supra* note 4, at 73.

17. The Fort McDermitt Tribe applied for the Phase II-B grant five days after the Mescalero. See Erickson et al., *supra* note 7, at 81.

however, Senator Jeff Bingaman of New Mexico sponsored a successful amendment to the 1993 energy and water appropriations bill that effectively barred any further funding for study grants to tribes or states, ending the federal role in the Mescalero MRS proposal.¹⁸

Meanwhile, the storage situation for spent nuclear fuel at many of the United States' 110 nuclear reactors was becoming worse as cooling basins at many reactors neared capacity. Utility proposals to expand storage space were sometimes blocked by nearby communities.¹⁹ The Department of Energy has estimated that 32 reactor sites will need additional storage capacity by the end of the century,²⁰ and existing reactors are expected to generate more than 80,000 metric tons of spent nuclear fuel under their current licenses.²¹

Frustrated by the delays and politics of the federal MRS project, the Mescalero tribal council initiated direct contacts with nuclear utilities in December 1993, regarding building a private MRS on the Mescalero reservation.²² Eventually, 33 utilities, led by Northern States Power of Minnesota, discussed the proposal with the Mescalero during 1994.²³

18. The amendment stated that no study grants could be disbursed unless "the Nuclear Waste Negotiator has first certified to the Secretary of Energy that there is a reasonable likelihood that agreement can be reached among all of the relevant governmental officials in the vicinity of any proposed site." EASTERLING & KUNREUTHER, *supra* note 4, at 74. When the appropriations bill went to conference, conferees voted to bar use of the Nuclear Waste Fund for study grants. Because DOE did not receive an appropriation from general revenues for study grants, the program was effectively canceled. *See id.*

19. The lead utility in the Mescalero negotiations, Northern States Power of Minnesota, became interested in the Mescalero option when its proposal to expand storage capacity at its Prairie Island nuclear facility was opposed by environmental groups, Native Americans, and state legislators. *See* Luther J. Carter, *The Mescalero Option*, BULL. OF THE ATOMIC SCIENTISTS, Sept. 1994, at 11.

20. *See* Elaine Hiruo & Mike Knapik, *Mounting Spent Fuel Storage Concerns Show Time May Be Ripe for Private MRS*, NUCLEAR FUEL, Mar. 28, 1994, at 1.

21. *Id.* This is much more than the Mescalero MRS would handle, meaning that some additional at-reactor or centralized storage would have been needed even if the Mescalero facility had been built.

22. *See* Background Memorandum on the Letter of Intent Between Utilities and the Mescalero Apache Tribe on the Spent Fuel Storage Project (Jan. 25, 1995)(on file with NAT. RESOURCES J.) [hereinafter *Background Memorandum*].

23. *See* Elaine Hiruo, *Commercial Storage Venture Faces Life-or-Death Deadline for Success*, NUCLEAR FUEL, Apr. 25, 1994, at 28-29. According to a preliminary business plan drafted in 1994, the Mescalero would have majority ownership in the venture. The business plan outlined a four phase Action Plan leading to completion of the MRS by 2001. Phase 1 entailed establishing a planning team, identifying needed licenses and approvals, and preparing a budget and schedule. In Phase 2, the utility partners would have signed a negotiated contract with the Mescalero. Phase 3 would have entailed preparation of a license application with the Nuclear Regulatory Commission and development of a transportation plan. Phase 4, expected to last between 1996 and 2001, would have involved obtaining an NRC license, beginning and completing construction, and resolving any challenges or

The tribal council and the utilities drafted a Letter of Intent in December 1994, but in a January 31, 1995 referendum, the Mescalero voted 490 to 362 against further negotiations.²⁴ The tribal leadership, which supported the venture, organized a petition drive for a revote, and on March 9, 1995 the Mescalero reversed themselves and voted 593 to 372 in favor of the project.²⁵ Negotiations over the design and financing of the facility continued throughout 1995 and early 1996²⁶ until they were broken off in April 1996.²⁷

THE TRIBE AND THE FACILITY

Understanding the ethics and politics of the controversy requires some understanding of the Tribe's motivations. The 3,000 Mescalero Apache Indians live on a 720 square mile reservation in South-Central New Mexico, 125 miles south of Albuquerque and just 40 miles from the

appeals. See Betsy Tompkins, *Possibilities for Private Facility Gain Momentum*, NUCLEAR NEWS, June 1994, at 28.

24. See George Johnson, *Nuclear Waste Dump Gets Tribe's Approval in Re-vote*, N.Y. TIMES, Mar. 11, 1995, at 6.

25. *Id.*

26. By June 1995, the consortium had shrunk to 23 utilities who were either equity partners or interested in renting space in the MRS once it was built. See Hiruo, *supra* note 23, at 28-29. By April 1996, the consortium, called the Mescalero Fuel Storage Limited Liability Corporation, represented only eleven utilities. The exact reasons for the breakdown in negotiations have not been disclosed, but John Parkyn, chairman of the LLC Board of Managers, said in a statement that "[n]egotiations between the utilities and the Mescalero Apache Tribe have been very complex." He added that "[w]e were unable to reach agreement on key business and legal issues over a 24-month negotiating period." Elaine Hiruo, *Mescalero-Utility Talks End, Joint Storage Project Crumbles*, NUCLEONICS WEEK, Apr. 25, 1996, at 5.

27. Two events in the summer of 1996 raised the likelihood that an interim spent fuel storage facility may still be built, most likely on federal land. On July 23, the DC Circuit ruled that DOE had an obligation to take title to the nation's spent nuclear fuel by January 31, 1998. The court rejected DOE's argument that it had no "statutory or contractual obligation" to accept the waste from nuclear utilities in the absence of an operating repository or interim storage facility. *Indiana Mich. Power Co. v. Department of Energy*, No. 95-1279, 95-1321, 95-1463, 1996 WL 408043 (D.C. Cir. July 23, 1996). With such a near-term deadline and no federal facility to store spent fuel, pressure on DOE to build an interim storage facility could mount. See Pamela Newman, *DOE Must Take Waste in 1998, Federal Court Says*, THE ENERGY DAILY, July 24, 1996. One week later, on July 31, the Senate passed S. 1936, authorizing the construction of an interim storage facility on the Nevada Test Site, on a vote of 63 to 37. The bill was heavily supported by the nuclear industry, which is eager to move spent fuel away from current storage facilities near reactors. See Pamela Newman, *Senate Overwhelmingly Backs Nuclear Waste Overhaul*, THE ENERGY DAILY, Aug. 1, 1996. House action on the interim storage bill appears unlikely before the November election, and the White House has said that President Clinton is likely to veto the bill if it passed through Congress. See Michael Remez, *Senate Approves Bill on Storing Spent Nuclear Fuel in Nevada: Vote Indicates Issue Still Unresolved*, THE HARTFORD COURANT, Aug. 1, 1996, at A1.

Trinity Test Site where the nuclear age began.²⁸ The Mescalero tribe is headed by a President, Wendell Chino, who has been in power for over 30 years,²⁹ and an elected tribal council that is both government and board of directors for the Tribe's business ventures.³⁰ The Tribe has developed a number of successful business operations, including a luxury hotel and casino, a ski resort, a golf course, a cattle ranch, and a sawmill.³¹ Chino is often quoted as saying, "The Navajos make rugs, the Pueblos make pots, and the Mescaleros make money."³²

While the business ventures have helped to raise the living standards of the Tribe, the Mescalero are still a poor people. Unemployment has hovered around 30 percent during the 1990s,³³ and according to the 1990 census, the median household income of the New Mexico Mescalero was \$14,364, compared to \$14,515 for all Indians and \$35,225 for Americans as a whole.³⁴ In 1989, 47.9 percent of the Tribe in New Mexico lived below the federal poverty level.³⁵ The Tribe was initially attracted to the MRS because of the study grant money (which did not have to be spent on actually studying the proposal), and because of the large influx of cash the project would bring in. The MRS was estimated to cost \$100 million to build,³⁶ and it might have grossed \$2 billion or

28. See Michael Satchell, *Dances With Nuclear Waste*, U.S. NEWS AND WORLD REP., Jan. 8, 1996, at 29.

29. Chino has been re-elected more than a dozen times. See Carter, *supra* note 19, at 11.

30. See Thomas W. Lippman, *On Apache Homeland, Nuclear Waste Seen as Opportunity*, WASH. POST, June 28, 1992, at A3.

31. The 440-room resort and convention center, the Inn of the Mountain Gods, contains the casino and offers golf, tennis, and guided big-game hunting. The ski resort, Ski Apache, is the second-largest winter sports center in the Southwest and draws approximately 300,000 visitors per year. The Tribe owns 7,000 head of cattle and operates a metal fabrication plant that produces containers for low-level radioactive waste. See Satchell, *supra* note 28, at 29.

32. Robert Bryce, *Nuclear Waste's Last Stand: Apache Land*, CHRISTIAN SCI. MONITOR, Sept. 2, 1994, at 8.

33. See *id.* See also *Mescaleros to Vote Again on Private SF Storage Site*, NUCLEAR WASTE NEWS, Mar. 3, 1995, at 8.

34. See U.S. DEP'T OF COMMERCE, BUREAU OF THE CENSUS, 1990 CENSUS OF POPULATION: CHARACTERISTICS OF AMERICAN INDIANS BY TRIBE AND LANGUAGE 600 (1994)(CP-3-7)[hereinafter AMERICAN INDIAN CENSUS]; U.S. DEP'T OF COMMERCE, BUREAU OF CENSUS, 1990 CENSUS OF POPULATION: THE SOCIAL AND ECONOMIC CHARACTERISTICS 23 (1993) (CP-2-1).

35. See AMERICAN INDIAN CENSUS, *supra* note 34.

36. Different sources provide different estimates for construction costs and potential profits for the Tribe. Hiruo, *supra* note 23, at 28-29; Hiruo & Knapik, *supra* note 20, at 1, report \$100 million in construction costs for a 10,000 metric ton facility. Construction, revenue and profit estimates are mostly conjecture given that the project did not advance beyond preliminary stages.

more over the 40 year life of the project.³⁷ The tribal leadership estimated that the Tribe would receive \$250 million in direct and indirect benefits from the project over 40 years.³⁸ The leadership also argued that the MRS would provide high-wage jobs to younger Tribe members, who are increasingly leaving the reservation.³⁹ According to President Chino, "[t]he storage of spent nuclear fuel is a 21st century industry with the attendant complement of high-tech, high-wage jobs not often available to Indian tribes."⁴⁰

Few details about the facility were released to the Tribe and public during the negotiations, and hard technical and financial data about the facility still remain scarce. The Mescalero MRS would have

37. See Hiruo, *supra* note 1, at 17. See also Satchell, *supra* note 28, at 29. According to Wendell Chino, "With total revenues estimated at \$2.3 billion over 40 years, the Mescalero Apache temporary spent fuel storage project is the largest rural economic development opportunity in New Mexico history." *Background Memorandum, supra* note 22, at 11.

38. See *Background Memorandum, supra* note 22, at 8. Some reports indicate that the Tribe would receive up to \$25 million per year, but that appears to be gross revenues, not profits. See Bryce, *supra* note 32, at 8. The Mescalero leadership estimated \$64 million in lease payments over the life of the project, plus dividend payments from the Facility Corporation that would be divided 60 percent to the Tribe and 40 percent to the utility companies that have partial ownership of the project. See *Background Memorandum, supra* note 22, at 4.

39. According to the 1990 Census, 50 percent of the Mescalero Apache Indians in New Mexico are under 19.1 years of age. The median age for American Indians as a whole is 23.7 years. See AMERICAN INDIAN CENSUS, *supra* note 34, at 250 (Census 1990. Table 7: General, Family, and Household Characteristics of Selected American Indian Tribes: 1990). In 1993, Fred Peso, the Tribe's Vice President, wrote a letter to Kathleen McGinty, Director of the White House Office on Environmental Policy, stating that "[t]he Mescalero tribal council is firmly committed to identifying business ventures which promise to be profitable, self-sustaining and that can provide quality jobs and professional opportunities for our children." Mary O'Driscoll, *Mescaleros Seeks [sic] White House Support in Battle with Bingaman*, THE ENERGY DAILY, Oct. 13, 1993. Opponents charge that the Mescaleros would get only the low-paying service jobs associated with the facility while non-Indians would hold the high-paying technical and managerial jobs. See Reese Erlich, *Indians Press Clinton to Halt Waste Storage*, CHRISTIAN SCI. MONITOR, Nov. 25, 1992, at 8.

40. Randel D. Hanson, *Indian Burial Grounds for Nuclear Waste*, xvi MULTINATIONAL MONITOR 21 (Sept. 1995). The tribal leadership assumed that tribal members would fill sixty percent of the jobs at the MRS, with \$3 million in employment benefits over the life of the project. *Background Memorandum, supra* note 22, at 8. However, the Letter of Intent called for employment of "members of the Tribe on a priority basis for positions [for] which they are qualified based on training and/or experience." *Letter of Intent Between Mescalero Apache Tribe and Utilities* 10 (Dec. 20, 1994) (on file with the NAT. RESOURCES J.) [hereinafter *Letter of Intent*]. Very few tribal members would have been qualified for the technical work on the MRS. The 1990 Census reports that less than one percent of the Mescalero in New Mexico have a bachelors degree or higher. See AMERICAN INDIAN CENSUS, *supra* note 34, at 429 (Table 9, Educational and Labor Force Characteristics of Selected American Indian Tribes: CENSUS 1990). According to the Letter of Intent, the Facility Corporation would also have employed "members of the Tribe on a priority basis for positions [for] which they may become qualified based on training provided by the Facility Corporation." *Letter of Intent, supra*, at 10.

been a large, guarded structure that would have contained spent nuclear fuel in dry casks—steel and reinforced concrete casings that are in use at some reactor sites in the United States that are considered among the safest ways to store spent fuel.⁴¹ The facility and associated structures would have occupied about one square mile,⁴² on a section of the reservation that would have been chosen by the Tribe and approved by the joint Tribe/Utility Facility Corporation.⁴³ In the transfer of the spent fuel from the rail car to the MRS, the spent fuel would not have been taken out of its shipping container,⁴⁴ reducing the risk compared to repackaging the fuel for interim storage.⁴⁵ The main direct risks would have been from leaking or damaged casks and transportation accidents.⁴⁶ The Nuclear Regulatory Commission would have licensed and inspected the MRS. The Mescalero leadership considered the MRS to be an environmentally benign facility, "the world's most expensive warehouse, with elaborate security monitoring," according to Chino.⁴⁷

While the tribal leadership was in favor of the project from the beginning, there was a solid core of opposition within the Tribe as well. Rufina Laws, a Tribe member and MRS opponent who ran against Chino for President in 1993,⁴⁸ organized a group called Humans Against Nuclear Waste Dumps to protest the MRS.⁴⁹ According to Laws, "the Tribe is actively being obligated to agreements and contracts without the consent of the people. Many tribal members are opposed to siting nuclear waste storage on our homeland, for they believe it will be a violation of our sacred land and our sacred mountain, Sierra Blanca."⁵⁰ The relationship between the leadership and the MRS opponents became rancorous, and opponents have leveled a number of accusations of intimidation and

41. See ARJUN MAKHIJANI & SCOTT SALESKA, *HIGH LEVEL DOLLARS, LOW LEVEL SENSE* 49 (1992).

42. See Lippman, *supra* note 30, at A3.

43. See *Background Memorandum*, *supra* note 22, at 6.

44. See Carter, *supra* note 19, at 11. See also *Letter of Intent*, *supra* note 40, at 5. The Letter of Intent envisioned use of 75 or 125 ton shipping casks, with some truck transportation if necessary to move the casks from railroad lines to the facility. *Id.* at 4.

45. See Carter, *supra* note 19, at 11.

46. This is an estimate of risks. No detailed drawings of the facility have ever been released, and no environmental or health impact studies have been released.

47. Lippman, *supra* note 30, at A3.

48. By the time of the election in November 1993 the Tribe had already applied for and received grants from the Nuclear Waste Negotiator. Chino defeated Laws by a vote of 391 to 176. In the Vice Presidential race, Fred Peso defeated Donalyn Torres, another opponent of the MRS, by a vote of 333 to 211. See Matthew Wald, *Nuclear Storage Divides Apaches and Neighbors*, N.Y. TIMES, Nov. 11, 1993, at A18.

49. See Hanson, *supra* note 40, at 41.

50. *Id.* at 21.

foul play against the leadership, casting doubt on the validity of the Tribe's final vote in favor of the MRS.⁵¹

DRAWBACKS OF THE MRS FOR U.S. NUCLEAR WASTE DISPOSAL POLICY

While the major focus of this article is on the environmental ethics of the MRS proposal, it is important to discuss the technical and institutional drawbacks of the proposal for the already troubled U.S. nuclear waste disposal policy. These drawbacks would have been serious, and they represent some of the strongest policy arguments against the MRS.

Nuclear waste is unlike other hazardous materials. The public fear surrounding it⁵² and the technical challenges it poses for storage and permanent disposal make any interim or long-term disposal solution difficult to plan and implement. In part because these challenges are so great and in part because of the expenditures required, the federal government has taken primary responsibility for long-term disposal of spent nuclear fuel.⁵³

One drawback of the Mescalero proposal was that it would have put over half of the spent fuel in the United States in a single private facility for several decades. By alleviating the near-term problem of spent fuel storage at reactors, the MRS may have taken the pressure off the federal government to seek sound long-term solutions to the waste problem. The MRS would have entailed transportation of spent fuel from reactor sites around the country to New Mexico with no long-term repository solution in sight.⁵⁴ Moreover, utilities and their customers would have paid twice, as their lease and storage payments to the

51. These accusations are discussed in more detail below in the section on the Mescalero votes.

52. See PUBLIC REACTIONS TO NUCLEAR WASTE: CITIZENS' VIEW OF REPOSITORY SITING (Riley E. Dunlap et al. eds., 1993), Pt. 1, for a good discussion of public attitudes.

53. The NWPAs gave responsibility for siting and characterizing a repository to the Department of Energy. See 42 U.S.C. § 10132(a)-(b) (1994). See also LEAGUE OF WOMEN VOTERS, A NUCLEAR WASTE PRIMER 26-31 (1993) for a discussion of the responsibilities of various federal agencies for nuclear waste disposal.

54. Since 1987, the only site that DOE has been allowed by law to investigate for a repository is Yucca Mountain in Nevada. While DOE is predicting an opening date of 2010 for a repository, many analysts of the nuclear waste program believe that to be very optimistic. Scientists have cited problems with the proposed repository at Yucca Mountain such as seismic and volcanic activity in the area, the potential that the repository could become flooded with water, and the potential that releases of carbon-14 could violate environmental standards. See MAKHIJANI & SALESKA *supra* note 41, at 59-64. See also JAMES FLYNN ET AL., ONE HUNDRED CENTURIES OF SOLITUDE: REDIRECTING AMERICA'S HIGH-LEVEL NUCLEAR WASTE POLICY 23-26 (1995).

Mescalero would have been in addition to the over six billion dollars⁵⁵ they have already paid into the federal Nuclear Waste Fund.⁵⁶

The Mescalero MRS would have been the largest above ground spent nuclear fuel storage facility in the United States.⁵⁷ There are serious questions about the operation of a private facility by an Indian tribe with little experience with nuclear waste, despite NRC licensing and despite the technical assistance of nuclear utilities in its construction and operation. This is especially true since the Tribe was deeply divided over the merits of the facility and since the Tribe's leadership would have changed over the life of the project. The poverty of the Tribe, its remote location, and its lack of voice in the political process could have allowed utilities to skimp on some safety measures and procedures during construction and operation.⁵⁸ The long-term safety of the facility was a key issue because of the potential that it could become de facto a long-term storage site for spent fuel.⁵⁹ Though a 40 year lifetime was envisioned for the facility,⁶⁰ it could have been used for 50 years or even longer given the problems with the siting and construction of a permanent geologic repository and given the Riley principle that nuclear waste tends to stay where it is first put.⁶¹

Many environmentalists, frustrated by the politically arbitrary selection of Yucca Mountain and the arbitrary deadlines that have been imposed on the disposal process, advocate at-reactor storage of spent fuel for as long as one hundred years.⁶² This would provide the federal

55. See Hiruo & Knapik, *supra* note 20, at 1.

56. The fund was set up in the Nuclear Waste Policy Act to pay for the identification, characterization and construction of a repository or MRS. 42 U.S.C. § 10222 (1994). It has been financed by a one time charge for commercial high-level waste or spent nuclear fuel in existence before April 1983 and a tenth of a cent per kilowatt-hour charge on electricity generated by nuclear power plants after April 1983. See LEAGUE OF WOMEN VOTERS, *supra* note 53, at 60.

57. Its projected 20,000 metric ton capacity dwarfs the capacity of any individual storage pool at reactor sites.

58. Though not disclosed to the Tribe, the Letter of Intent between the utilities and the tribal council provides for a nine-member Board of Directors to run the MRS, four of which would be from the Tribe, and five of which would be from the utilities. Further, the Letter of Intent provides for decision-making by majority rule of the Board of Directors. See *Letter of Intent*, *supra* note 40, at 9.

59. See MAKHIJANI & SALESKA, *supra* note 41, at 47.

60. The Letter of Intent outlined penalties for utility customers if spent fuel remained in the MRS beyond the 40-year lifetime of the project. The penalties ranged from two times the annual storage fee for a 0-2 year delay in removing the fuel to five times the annual storage fee in the case of a 6-10 year delay in removing the fuel. See *Letter of Intent*, *supra* note 40, at 20.

61. First coined by former South Carolina Governor Richard Riley. See *Nuclear Waste, Not Here, Please*, THE ECONOMIST, Nov. 26, 1994, at 31.

62. See, e.g., MAKHIJANI & SALESKA, *supra* note 41, at 105.

government with more time and increased know-how to construct a sound permanent repository.⁶³

The major benefit of this option relative to the MRS is that the spent fuel would have to be transported only once—from the reactor site to the permanent repository. Also, some of the shorter-lived and highly radioactive components of spent nuclear fuel, such as strontium-90, krypton-85, and plutonium-241, would decay away and make transport and geologic disposal easier.⁶⁴ There were not likely to be monetary savings from an MRS relative to a variety of other disposal scenarios, as a 1989 study by the federal MRS Commission concluded.⁶⁵ Drawbacks of at-reactor storage include the need for continuous monitoring and security and ensuring safety, but two analysts have concluded that "[d]espite these concerns . . . onsite storage is likely to be the least dangerous interim option until a long-term disposal method is developed."⁶⁶

It is beyond the scope of this article to take a comprehensive look at the history and prospects for nuclear waste disposal, but it is apparent that there is support for the position that the Mescalero MRS would not have been advantageous for the national spent fuel disposal effort on both technical and institutional grounds. In addition to these technical drawbacks, there were several disturbing ethical problems with the MRS.

THE ETHICS OF THE FEDERAL ROLE IN THE MRS NEGOTIATION PROCESS

In assessing the ethics of the MRS proposal, the two phases of the project need to be considered separately. The first phase of the project involving federal negotiations with the Mescalero should be subjected to a higher standard of ethical scrutiny than the second, private phase of the project involving tribal negotiation with the consortium of nuclear utilities. Private parties may engage in private agreements that could be harmful to one or both parties. We should be more wary of the federal government, acting on behalf of the American people and thus implicating each of us in its decisions, subjecting any group to a potential harm, even with compensation.

63. The nuclear industry has argued that it is better to have one centralized interim storage site rather than spent fuel storage at all of the reactor sites in the United States. This ignores the fact that every operating reactor will continue to produce intensely radioactive spent fuel that must be stored on site in order to cool even if spent fuel currently in storage is taken away to a central facility. See Don Hancock, *Where is Nuclear Waste Going-Or Staying?* 20 THE WORKBOOK 100, 103 (Southwest Research and Information Center, Albuquerque, N.M. 1995).

64. See MAKHIJANI & SALESKA, *supra* note 41, at 106.

65. *Id.* at 47.

66. *Id.* at 107.

One of the most serious and legitimate ethical charges that can be brought against the federal government is that the process set up by the 1987 NWPA Amendments and the Office of the Nuclear Waste Negotiator favored an Indian tribe becoming the eventual host of an MRS. As discussed above, the non-Indian communities that applied for the initial study grants were overruled by their state governors. The tribes, however, could proceed with the process because they were not subject to the veto power of state governments.⁶⁷

Vernon Nelson, a spokesman for the ONWN, argued in 1992 that "we don't target anybody, we don't target tribes, we don't target states, we treat everyone equally and fairly."⁶⁸ The actions of the Nuclear Waste Negotiator belied this argument, however, and demonstrated that Indian tribes were seen from the beginning as likely hosts of the MRS. Not only were Indian tribes explicitly mentioned in the authorizing legislation, but in May, 1991, David Leroy, the first Nuclear Waste Negotiator, mailed letters to every tribal council in the United States explaining the MRS proposal and the study grants. Leroy spoke at the annual meeting of the National Congress of American Indians in December 1991 and touted the MRS proposal. He said to his audience that:

[I]t is the Native American cultures of the continent which have long adhered to the concept of planning for many generations of future unborn children in the decisions that are made today. . . . With atomic facilities designed to safely hold radioactive materials with half-lives of thousands of years, it is the Native American culture and perspective that is best designed to correctly consider and balance the benefits and burdens of these proposals.⁶⁹

Had Congress simply passed a law mandating that an MRS be located on Indian land, even with compensation, there would have been a public uproar. The process that was set up by the 1987 amendments and the subsequent actions by the ONWN had the effect of achieving the same goal.⁷⁰

67. See 42 U.S.C. § 10243(a)(1)(B) (1994).

68. Katie Hickox, *High-Level Nuke Dump Pits Indians Against Each Other*, Governor King, Congress, STATES NEWS SERVICE, May 28, 1992.

69. David H. Leroy, *Federalism on Your Terms: An Invitation for Dialogue Government to Government*, Remarks presented to the National Congress of American Indians, San Francisco, California (Dec. 4, 1991), at 8, 9.

70. For example, the fact that so many more Indian tribes applied for the study grants relative to states and non-Indian communities suggests that the system encouraged Indian participation.

Targeting Indian tribes to host the MRS was particularly reprehensible from an ethical standpoint because of the long and often destructive history of Indian involvement in U.S. nuclear programs. Several U.S. nuclear facilities are located on or near Indian land, including Los Alamos National Laboratory, the Nevada Test Site⁷¹ (where the United States conducted over 900 nuclear weapons tests), the Hanford Nuclear Reservation,⁷² and Yucca Mountain itself.⁷³ Native Americans were heavily represented among uranium miners during the uranium boom of the 1950s and 1960s in Colorado, Utah, and New Mexico, a boom that was driven by demand for uranium for nuclear weapons and nuclear reactors.⁷⁴ Native uranium miners were exposed to dangerous levels of radon, a uranium decay product. A number of uranium mill tailing piles, which are among the most hazardous nuclear wastes,⁷⁵ have contaminated Indian lands.⁷⁶

Some environmentalists and policy makers based their objections to the Mescalero MRS squarely on the historical context of nuclear exploitation and general maltreatment of Indian tribes by the United States government.⁷⁷ According to Winona LaDuke, co-chair of the Indigenous Women's Network, "[n]ative communities are focal points for the excrement of industrial society, a situation made possible by both the colonial relationship of the United States and Canada to Native peoples and general conditions of environmental racism in each country."⁷⁸ Or, as Robert Bullard of the University of California put it, "[t]argeting

71. See A SPECIAL COMM'N OF INT'L PHYSICIANS FOR THE PREVENTION OF NUCLEAR WAR AND THE INST. FOR ENERGY AND ENVTL. RESEARCH, *NUCLEAR WASTELANDS: A GLOBAL GUIDE TO NUCLEAR WEAPONS PRODUCTION AND ITS HEALTH AND ENVIRONMENTAL EFFECTS* 202, 225 (Arjun Makhijani et al., eds. 1995).

72. OFFICE OF CIVILIAN RADIOACTIVE WASTE MGMT., DEP'T OF ENERGY, U.S. ENVIRONMENTAL ASSESSMENT: REFERENCE REPOSITORY LOCATION, HANFORD SITE, WASHINGTON 3-208 (1986)(DOE/RW-0070 1 of 2).

73. Yucca Mountain is within the boundaries of the Nevada Test Site.

74. See MAKHIJANI ET AL., *supra* note 71, at 113-126; Erickson et al., *supra* note 7, at 88-90.

75. See MAKHIJANI ET AL., *supra* note 71, at 34-35.

76. See *id.* at 121. Between 1955 and 1977, 15 tailings dams broke. In 1979, a dam holding back mill tailings waste at Church Rock, New Mexico, failed and released 94 million gallons of mill tailings liquid into the Rio Puerco, which cuts through Navajo lands in New Mexico and Arizona. In Tuba City, Arizona, a mill tailings pile has contaminated groundwater and threatens the Moenkopi Wash, the Hopi's only source of water for irrigation. *Id.*

77. See, e.g., Grace Thorpe, *Our Homes are Not Dumps: Creating Nuclear Free Zones*, Speech at the North American Workshop on Environmental Justice, Denver, Colorado (Mar. 17, 1995) in <http://www.alphacdc.com/necona/homes.html>.

78. Winona LaDuke, *A Society Based on Conquest Cannot be Sustained*, in *TOXIC STRUGGLES: THE THEORY AND PRACTICE OF ENVIRONMENTAL JUSTICE* 99, 101 (Richard Hofrichter ed., 1993).

Native American land for disposal of wastes is a form of garbage imperialism."⁷⁹

THE ETHICS OF COMPENSATION

Some critics of the MRS proposal went a step further and argued that the voluntary process and the offer of compensation were themselves unethical because poor communities were being "bought off" by the federal government. Senator Tom Daschle of South Dakota, a state with a large native population, said that the federal negotiating process for the MRS was "tantamount to bribery and the worst type of policy for the United States to be involved in."⁸⁰

This economic strain of environmental justice arguments is less compelling and crosses the line into paternalism. While assertions about bribery and economic exploitation were among the most frequently voiced claims against the MRS, they are weak for several reasons.

First, given that the federal government wanted to build an MRS, the main alternative to voluntary negotiations and the lure of compensation was a compulsory siting process in which the federal government would choose a location for the MRS by fiat, whether on Indian or non-Indian land. But compulsory and coercive methods of siting hazardous facilities have been widely discredited on ethical and political grounds, especially in the wake of the congressional imposition of the repository program on Nevada⁸¹ and the political opposition this engendered.⁸²

Second, if a community has decided for itself that the benefits outweigh the costs of a facility, denying the community the facility on equity grounds (because it is poor or minority) undermines its opportunity to improve its own welfare. In the case of the MRS, it is important to remember that the project would have brought several million dollars per year to the Tribe. If the federal government blocked a non-nuclear economic development project of that magnitude on an Indian reservation, it would rightly be criticized. There is an element of paternalism in some environmental justice arguments that offends the ethical principle

79. Robert Bullard, *Environmental Justice for All*, in *UNEQUAL PROTECTION: ENVIRONMENTAL JUSTICE AND COMMUNITIES OF COLOR* 3, 17 (Robert Bullard ed., 1994).

80. Bill Lembrecht, *More People Opposing Dumps on Indian Land . . . Doubts Surface in Congress*, *ST. LOUIS POST DISPATCH*, May 25, 1992, at 1B.

81. See EASTERLING & KUNREUTHER, *supra* note 4, at 144-45.

82. See JAMES FLYNN ET AL., *supra* note 54, at 8-12.

that individuals and communities, rich or poor, should be free to consider and pursue economic options on their own.⁸³

The tribal leadership expressed this belief forcefully. Decrying outsiders such as Greenpeace and the Natural Resources Defense Council who came to the reservation to speak against the MRS, Silas Cochise, a tribal official, said: "These outsiders are ignorant. How dare they tell us how to live and what is good for us."⁸⁴ Another tribal official, Jennifer Sundayman-Byers, echoed this view: "They come to save the poor Indian from himself. This creates great anger and resentment. What do they know of our way of life?"⁸⁵

Keven Gover and Jana Walker, two Native American attorneys from Albuquerque, New Mexico, criticized economic paternalism in an article in the *Colorado Law Review*:

Too often, the environmental community appoints itself the officious protector of the Indians . . . To people like ourselves, Indians who have devoted our careers to the defense of Indian rights, this is unspeakably arrogant . . . Much of the environmental community seems to assume that, if an Indian community decides to accept such a project, it either does not understand the potential consequences or has been bamboozled by an unprincipled waste company. In either case, the clear implication is that Indians lack the intelligence to balance and protect adequately their own economic and environmental resources.⁸⁶

In addition to the problem of paternalism, arguments that offers of compensation are inherently unethical can ring hollow because almost all analysts of the troubled U.S. nuclear waste policy have emphasized the importance of procedural equity in gaining the trust of communities. Perceptions of fairness depend as much on the decision-making processes

83. Some opponents of the MRS object to this line of argument in the case of Indian tribes because the federal government had a role in making the tribes poor. They contend that the question of whether tribes can make economic decisions for themselves is too narrow, and the real issue is whether the federal government should provide resources so that tribes are not forced into such difficult decisions. For example, Erickson et al. have argued that "[t]he social and economic conditions of Indian country stem from the federally defined sovereignty of Indian nations. These conditions contribute to the willingness of some Indian tribes to study the MRS, while not one of 50 states will do so." Erickson et al., *supra* note 7, at 86. This view has some merit, but given the poverty on reservations and the remote prospect that the federal government will substantially alleviate it, the question remains about how tribes may best seek economic development opportunities on their own.

84. Satchell, *supra* note 28, at 29.

85. *Id.*

86. Kevin Gover & Jana Walker, *Escaping Environmental Paternalism: One Tribe's Approach to Developing a Commercial Waste Disposal Project in Indian Country*, 63 U. COLO. L. REV. 933, 942 (1992).

used in facility siting as on substantive issues of location and risk. As Doug Easterling and Howard Kunreuther have argued, the MRS provisions of the 1987 NHPA amendments were a model of procedural equity, especially in comparison to the coercive selection of Yucca Mountain in the same bill. The federal MRS negotiating process allowed potential hosts to back out of the process at any time and provided study grant funds so that potential host communities could obtain information from sources other than DOE.⁸⁷

In the context of hazardous facility siting, the public generally supports voluntary compensation schemes to a much greater extent than compulsory methods. Compensation schemes help to alleviate inequities between those who enjoy the benefits of a hazardous facility and those who bear the localized costs and risks. As one individual wrote to a Seattle newspaper, "[c]oating bitter pills with a bit a sugar would undoubtedly remove much opposition. It is when the undesirable is jammed down the throat without compensation that people feel unfairly treated."⁸⁸

THE ETHICS OF COMPENSATION—ANOTHER LOOK

While compensation schemes in the context of facility siting are not inherently unethical, most people are not entirely comfortable with their results. Compensation schemes almost inevitably mean that poor communities will come forward to host hazardous facilities and negotiate for compensation. Poor and affluent communities alike may weigh costs and benefits in deciding whether to host a hazardous facility, but the level of compensation at which benefits outweigh costs will undoubtedly be lower for the poor communities. Indeed, one possible reason for public support of voluntary compensation schemes is that affluent voters know they can avoid hosting a hazardous facility while secure in conscience because a poor community freely chose to become a host. Thus, using compensation to alleviate distributional inequity, by offsetting localized costs with monetary benefits, often leads to a more global kind of inequity in which poor and minority communities end up with most of society's noxious facilities.

These negative ethical implications of a voluntary siting process involving compensation are often overlooked by nuclear waste policy analysts. For example, a team of nine academic experts on Yucca Mountain recently criticized the selection process for that site as coercive

87. EASTERLING & KUNREUTHER, *supra* note 4, at 214-17.

88. DAVID MORELL & CHRISTOPHER MAGORIAN, *SITING HAZARDOUS WASTE FACILITIES: LOCAL OPPOSITION AND THE MYTH OF PREEMPTION* 167 (1983).

and politically arbitrary and at the root of the current problems with the project.⁸⁹ They recommended employing a voluntary site selection process in which "Congress should mandate that no community be forced to accept a repository against its will. . . ."⁹⁰ They further argued that "[a] voluntary siting program must offer sufficient benefits to potential host communities and regions so that their residents feel their situation has improved over the status quo."⁹¹ This approach, however, could very well result in suboptimal siting from a technical standpoint and the siting of a repository in an impoverished minority community, possibly on Indian land.

The potential for burdens to inevitably fall to the poor under compensation schemes raised the ire of environmentalists and engendered much of the opposition to the Mescalero MRS. What opponents were really criticizing, however, was the fact of inequality itself—the inequality and poverty that drives poor communities to volunteer to host facilities shunned by more affluent communities. But we cannot have it both ways. We cannot advocate open processes involving fair compensation and at the same time oppose the projects when poor communities step forward to host the facility and obtain compensation.

There are no easy answers to this conundrum. What was at issue in the Mescalero case and in facility siting in general was a classic tension between equity and efficiency. If the goal is to share environmental burdens equally, then affluent communities must either be forced to accept hazardous facilities or large amounts of compensation may need to be offered to them even if a poorer community is willing to take a lesser amount of compensation. From an economic standpoint, this is an inefficient, needless expenditure of resources, but it could potentially be justified on the ethical grounds of burden-sharing. The ethical case for allowing poor communities to pursue projects that they believe will be beneficial for them is even more compelling, however. In most cases, the ethical balance should tip in that direction.

Potential harm to communities that accept facilities such as an MRS can be mitigated by retaining the primacy of technical and safety criteria in the selection process rather than using cost as the sole or even primary criterion. Easterling and Kunreuther have argued that communities must be allowed to negotiate not only over the amount of compensation but also over the design and procedures for operation of the nuclear waste facility.⁹² This makes ethical sense as well as practical sense, as straight cash compensation schemes are often perceived as bribes by the

89. See FLYNN ET AL., *supra* note 54, at 17.

90. *Id.*

91. *Id.*

92. See EASTERLING & KUNREUTHER, *supra* note 4, at 183.

communities affected. The two researchers found that among citizens opposed to the siting of a nuclear waste repository, offering straight cash compensation can actually increase opposition because, to these citizens, the offer appears to violate the notion that life is special and cannot be bought and sold.⁹³

David Leroy, the Nuclear Waste Negotiator, seems to have recognized this point, at least in his rhetoric: "When I speak of benefits, I am not talking about traveling from airport to airport with a bag of money. The American people will not be motivated by fiscal bribery. Before any nuclear facility siting negotiation can hope to succeed, affected stakeholders must satisfy themselves on all conceivable issues of safety, control, technology, and acceptability."⁹⁴

EXCEPTIONS TO THE RULE—WHEN PATERNALISM MAY BE JUSTIFIED IN FACILITY SITING

There are two exceptions to this general rule that poor communities such as the Mescalero should be able to negotiate for potentially hazardous facilities when they believe it will improve their economic welfare.

First, the economic options available to poor or oppressed communities can be so circumscribed that the word "choice" no longer applies to their decisions. Is a community in abject poverty really "free" to engage in complex monetary transactions with wealthy corporations? Or is such a community caught between Scylla and Charybdis—the moral equivalent of making a decision at gunpoint? In these cases, there may be a role for outside groups or government entities to prevent what amounts to economic exploitation. This type of argument was often made during the Mescalero MRS controversy. Representative Bill Richardson (D-NM) lamented that he was concerned for Indian tribes "because there is [sic] such massive economic problems on the reservations. They are being limited in their economic options to nuclear waste."⁹⁵ Lance Hughes, Executive Director of the Oklahoma-based Native Americans for a Clean Environment, has argued that the Bureau of Indian Affairs has failed miserably in its mandate to foster economic development on reservations. As a result, according to Hughes, tribes are more apt to entertain questionable proposals from waste companies.⁹⁶

93. *Id.* at 182.

94. EASTERLING & KUNREUTHER, *supra* note 4, at 215.

95. Hickox, *supra* note 68.

96. Telephone Interview with Lance Hughes, Executive Director, Native Americans for a Clean Environment (March 18, 1996).

The key ethical question, then, is whether the Mescalero were in some way "forced" by economic circumstances into seeking the MRS. In one sense they were, because if their per capita income were two or three times its present amount it is very unlikely that they would have pursued the MRS project. On the other hand, it is difficult to argue that the Mescalero Apache Tribe is at a level of poverty which provided no other options besides the MRS. Indeed, the Tribe runs a number of multi-million dollar business ventures. In contrast to many environmentalists, Grace Thorpe, a member of the Sac and Fox Tribe, an opponent of the MRS program, and President of the National Environmental Coalition of Native Americans, acknowledges that the Mescaleros were not driven by economic circumstances to seek the MRS. "The Mescalero don't need this nuclear waste," she said. "They have a five-star resort, a casino, two ski lifts, forestry resources, and a sawmill."⁹⁷

The actions of the Mescalero leadership also undermine the argument that the Mescaleros were driven or forced to accept nuclear waste. Far from appearing remorsefully resigned to accept the MRS as a last resort to sustain the Tribe's livelihood, the leadership doggedly pursued the project for five years and aggressively engaged in negotiations with the nuclear utilities when the federal government cut off funding. There is some level of poverty below which consensual economic transactions might mask an exploitative relationship, but the Mescalero do not appear to fall into that category.

The second situation in which it might prove unethical for government or private corporations to contract with poor communities to host hazardous facilities is when information constraints preclude informed consent. If the community does not have the proper information needed to make an informed decision, or if the community is denied such information, then the economic transaction can rise to the level of exploitation. This issue is discussed in detail below in the context of the two Mescalero votes.

THE ETHICS OF THE PRIVATE MRS VENTURE

The economic justice arguments used against the federal phase of the MRS proposal become even more untenable when applied to the private phase of the project. While the private phase of the MRS venture had a number of technical and institutional drawbacks for national spent fuel disposal policy as discussed above, it raised fewer ethical concerns than the federal phase of the project. To assert that the government should prevent private parties from negotiating contracts on the grounds

97. Thorpe, *supra* note 77.

that one is poor and one is rich amounts to paternalism. The argument that the Mescalero have a right to enter into business contracts with corporations without having it characterized as an exploitative relationship was summed up by Fred Peso, the Tribe's Vice President: "We believe the MRS is a business-a service provided in exchange for a profit to a willing customer by a willing seller."⁹⁸

Some analysts maintain that there never truly was a private phase of the MRS proposal because the federal government's fingerprints lingered on the proposal throughout the Mescalero's private negotiations with the nuclear utilities.⁹⁹ In this view, the federal government initiated the Mescalero into the MRS process and, through the study grants, gave them the interaction with expert consultants that later allowed them to conduct negotiations with the nuclear utilities.¹⁰⁰ Certainly, the necessity of obtaining a federal NRC license and state permits for the MRS meant that the government was never completely out of the picture during the private negotiations.

But much of the criticism of the project stemmed from people not liking the outcome of an MRS ending up in a poor Indian community. The outcome-based consequentialist sentiment was that the proposal was just not right, regardless of whether the Tribe voted for it and perceived that it was in its interest. As the economist Morris Silver has asserted, "[l]arge gains in utility . . . are incapable of transforming moral wrong into moral right."¹⁰¹ To be sure, there are some examples of society placing moral limits on the right of private parties to negotiate contracts. For example, we prevent people from selling themselves into slavery to raise funds to feed their families, we have child labor laws, and we outlaw prostitution. Society imposes these limits not so much because the contracts may harm third parties, but because they violate societal moral standards. Even the simple case of one person buying another's place in a long line offends most people's ethical values. Though both parties to the transaction are made better off, and no one in the line is made worse off, most people believe that buying a place in line violates ethical concepts of justice and fair play.

Though society has imposed some moral restraints on contracts, the ethical hurdles to barring private parties from entering into contracts must be placed very high to avoid paternalism. While the result of an MRS on Indian land may have been deplorable or undesirable to many

98. *Fred Peso Testimony*, *supra* note 14.

99. Telephone Interview with Duane Chapman, Professor of Resource Economics, Cornell University (March 18, 1996).

100. *Id.*

101. MORRIS SILVER, FOUNDATIONS OF ECONOMIC JUSTICE 142 (1989).

people, ethical qualms about this result did not justify outside interference in the private venture between the Mescalero and the utilities.

THE MESCALERO VOTES AND THE ISSUE OF INFORMED CONSENT

The above analysis assumes that the Mescalero wanted the facility, weighed its costs and benefits, and had enough information to make an informed judgment about it. But the second, affirmative vote on the MRS was preceded by a negative vote just six weeks earlier, which raises questions about what decision the Mescalero really supported. The fact that the elected tribal leadership was unanimous in its support of the MRS while there was significant opposition among unelected tribal members similarly raises questions about whether a democratic consensus ever existed in support of the MRS. If the votes were conducted in an atmosphere of intimidation or fear, then arguments about a community's right to make a decision for itself, while valid in general, are weakened in this case.

Democratic consensus and fair processes are vital in cases of environmental ethics because environmental harms stemming from hazardous facilities can affect every member of a community. Building community support through honest dialogue has been found to be vital in cases of facility siting.¹⁰² The ethical arguments against paternalism and preventing poor communities from choosing among economic options fall apart if the community was hoodwinked, misled, or coerced by outsiders or its own leaders.

There is indeed some evidence that coercion and intimidation were involved in securing the second vote on the MRS. One observer of the process said that Wendell Chino was so confident that the first tribal vote would support his position, and so angry when it went against him, that he launched a full-scale campaign to reverse the vote in a second referendum.¹⁰³

The Mescalero tribal constitution concentrates power in the hands of the President, and President Chino vigorously supported the MRS. The President appoints the election committee, serves on the tribal council, heads the executive branch, chairs the court of appeals, and has veto

102. See, e.g., MORELL & MAGORIAN, *supra* note 87, at 186-87.

103. Telephone Interview with Don Hancock, Nuclear Waste Safety Program Director, Southwest Research and Information Center, Albuquerque, N.M. (Aug. 21, 1996). Indeed, the Letter of Intent signed on December 20, 1994 with the utilities appears to have assumed a speedy tribal approval process. It gave the utilities the right to terminate the project if the Tribe had not selected a site on the reservation for the MRS by July 31, 1995, allowing only a seven month window for approval. See *Letter of Intent*, *supra* note 40, at 15.

power over tribal council decisions.¹⁰⁴ All election and referendum ballots, including the two votes on the MRS, are counted in secret.¹⁰⁵

The governmental structure of the Tribe dates back to the Indian Reorganization Act of 1934,¹⁰⁶ which imposed tribal constitutions and established tribal councils on each Indian reservation.¹⁰⁷ According to Easterling and Kunreuther, "[t]he council system replaced a much more consensus-based form of government under which decisions were made by chiefs or other elders with the input of the entire Tribe [I]t is possible for the elected representatives to consent to an MRS facility, even when it offends the wishes and values that predominate among tribal members."¹⁰⁸

David Morell and Christopher Magorian have similarly noted that "[o]ne of the biggest dangers [with compensation schemes] is the tendency of public officials . . . to be concerned predominantly with the financial benefits that accrue to the town, whereas the residents of the town are likely to be most concerned about the risks of the facility and its safety features, not its property tax payments."¹⁰⁹ This split in opinion appears to have existed among the Mescalero, as the voices of opposition were entirely concentrated among unelected members of the Tribe. The few MRS opponents who worked within the tribal administration were fired from their tribal jobs,¹¹⁰ and experienced other repercussions.¹¹¹

104. See Erickson et al., *supra* note 7, at 90-91.

105. *Id.* at 90.

106. 25 U.S.C. §§ 461-79 (1994).

107. EASTERLING & KUNREUTHER, *supra* note 4, at 217.

108. *Id.*

109. MORELL & MAGORIAN, *supra* note 88, at 176.

110. See Erickson et al., *supra* note 7, at 91. Rufina Laws said that when she first tried to get signatures in 1992 for a petition opposing the MRS, "some people told us straight out, 'There's no way I'm going to sign that petition, because if my name appears on that petition, then I'm going to lose my job, and my wife is going to lose her job, and we're going to lose everything we have.'" She added that "[w]e have a dictatorial government here," which, while elected, has ballots that are counted in secret "by an election board that is appointed to that position by the President of the Tribe. So it's not an unbiased group of people that's doing the tallying of the votes. I think that's one of the biggest reasons why we have retained the same tribal president, Mr. Chino, for nearly four decades." Beth Enson, *New Mexico Women Activists: A Mescalero Apache Woman Takes on an Entrenched Tribal Government to Fight a Plan for Nuclear Waste*, 18 THE WORKBOOK 146, 149 (Southwest Research and Information Center, Albuquerque, N.M. (1993)).

111. Telephone Interview with Duane Chapman, Professor of Natural Resources Economics, Cornell University (Aug. 20, 1996). Professor Chapman visited the reservation in August 1994 and interviewed some of the MRS opponents. According to Chapman, the dogs and horses of one MRS opponent were killed and his children were assaulted. Soon after, President Chino wrote letters to the CORNELL DAILY SUN and to Cornell's President, Frank Rhodes, challenging Chapman's qualifications to write about the Mescalero controversy. *Id.*

Despite three years of studies and negotiations by the tribal council, few details about the MRS were made available to tribal members, and the council held no public hearings during the negotiations with the utilities. While the tribal council signed the Letter of Intent with the utilities in December 1994,¹¹² it was not until January 16, 1995 that a small notice appeared announcing that a referendum on the MRS might soon be held. On January 25, tribal members were notified that a public meeting would be held the next day and that a referendum would be held on January 31.¹¹³ The only document released at the public meeting was a two-page summary of the Letter of Intent.¹¹⁴ The Letter of Intent itself was not available to tribal members, and the summaries provided did not highlight some of the key parts of the Letter of Intent. For example, the Letter provided that a nine-member Board of Directors would control the Facility Corporation that would have run the MRS. Five Board members would be from the utilities and only four would be from the Tribe.¹¹⁵ This could have worked against the Tribe's interest, since "for all matters relating to the governance and management of the Facility Corporation, a majority of the votes of the Directors present is required to act."¹¹⁶ Another provision of the Letter of Intent not mentioned in the public documents released by the Tribe was that title to the spent fuel could pass from the utilities to the Tribe provided there was approval by the Tribal Council.¹¹⁷

The first referendum went against the MRS, 490 to 362, and one could argue that this is evidence that the leadership did not coerce the Tribe.¹¹⁸ But it was the tribal leadership, dissatisfied with the outcome, that initiated the petition drive for a revote, allowed under the Mescalero

112. The Letter of Intent, signed December 20, 1994, contained several provisions that were at variance with the original business plan of March 1994. Most importantly, the capacity of the facility was expanded from 10,000 to 20,000 metric tons, with an option to hold as much as 40,000 metric tons.

113. See *Mescalero Tribe Holds General Meeting for Tribal Members to Ask Questions about the Temporary Spent Fuel Storage Project* (Jan. 26, 1995) (Press release: Mescalero Utility Fuel Storage Initiative).

114. Hanson, *supra* note 40.

115. *Letter of Intent*, *supra* note 40, at 9.

116. *Id.*

117. *Id.* at 5. The Letter of Intent also stated that the Tribe and utilities would seek an NRC license for an MRS with a capacity of 40,000 metric tons, substantially higher than the original business plan called for. The Letter stated that written approval of the Tribal Council would be needed to accept spent fuel above 20,000 metric tons and that with approval of the Tribal Council and a Tribal referendum, an NRC license to expand capacity beyond 40,000 metric tons could be sought. *Id.* at 11, n. 15.

118. According to Don Hancock of the Southwest Research and Information Center, no one has ever claimed that the first referendum, opposing the facility, was anything but free and fair. See Hancock, *supra* note 63, at 108.

Constitution if thirty percent of eligible voters petition to do so.¹¹⁹ While the leadership characterized the petition drive as a grassroots movement,¹²⁰ it was orchestrated by Fred Kaydahzinne, the Chino-appointed tribal housing director who controls 60 percent of the housing on the reservation and whose power to grant or deny housing to families could be seen as undermining a fair voting process. Kaydahzinne deployed 20 on-duty tribal employees to gather signatures for the petition.¹²¹ According to Rufina Laws, "[i]t was real hard for people to turn him down."¹²² Laws estimated that up to 90 percent of members opposed the facility,¹²³ and she maintained that the second, affirmative vote could be explained as a failure of the democratic process: "We don't have any checks or balances in our tribal constitution. And the tribal council is just more or less a rubber stamp. I hear about city councils where they have conflicts and people argue things and after a while the majority rules. That's not what happened here."¹²⁴

Another issue that calls into question the legitimacy of the voting and raises ethical concerns is whether the Tribe ever had adequate information to make a collective decision on the MRS. The tribal leadership certainly was informed in that it received study grants from the ONWN, hired outside technical consultants, and traveled to other nuclear facilities.¹²⁵ Its main technical consultant and spokesman, Miller Hudson, was a former official with Pacific Nuclear Corporation,¹²⁶ and it is still unclear whether the leadership sought out opposing views on the MRS. Apart from the leadership, other members of the Tribe were less informed and had few independent sources of information.¹²⁷ Their

119. See, U.S. DEP'T OF THE INTERIOR, OFFICE OF INDIAN AFFAIRS, REVISED CONSTITUTION OF THE MESCALERO APACHE TRIBE OF THE MESCALERO INDIAN RESERVATION (approved Mar. 25, 1936, revised Jan. 12, 1965) in Erickson et al., *supra* note 7, at 91.

120. See Johnson, *supra* note 24, at 6.

121. See Hanson, *supra* note 40.

122. Johnson, *supra* note 24, at 6.

123. See Hanson, *supra* note 40.

124. Johnson, *supra* note 24, at 6.

125. According to Fred Peso, the Tribe's Vice President, tribal leaders traveled to Washington on a number of occasions and met with radiation health staff at the National Institutes of Health, Nuclear Regulatory Commission officials, and staff at DOE's Office of Civilian Radioactive Waste Management. See *Fred Peso Testimony*, *supra* note 14.

126. In an interview, Hudson said Pacific Nuclear could stand to make large profits on the Mescalero MRS because it manufactures nuclear waste containers. Nuclear power plants across the United States might have had to use Pacific Nuclear's containers in order to meet the standards of the Mescalero MRS. See Erlich, *supra* note 39, at 8.

127. In an interview, Rufina Laws said that in 1993 she requested that the tribal leaders allow a public hearing on the pros and cons of nuclear waste involving Indian leaders from other reservations. Mescalero tribal leaders did not want outsiders on the reservation, Laws said, "but I said 'How can we possibly debate this issue when there isn't a person in here

avenues of information included an MRS Newsletter issued by the tribal council twice monthly¹²⁸ and an information center on the MRS that was established by the tribal council in an old laundromat.¹²⁹ In this light, activities of outside environmental groups could be viewed not as meddlesome and paternalistic but as an effort to provide a balance of views to the tribal members.

The Mescalero decision-making process should not be idealized as consensual, deliberative democracy. If there had been a fair vote in favor of the facility, it would be more problematic to oppose the MRS on ethical grounds. But there appears to have been some degree of intimidation and information control by the leadership that reversed the initial vote and swayed the final outcome. This is one of the most serious ethical charges that can be brought in the context of the MRS proposal.

The Mescalero decision-making process on the MRS calls into question whether voting is the best way for communities to express their will regarding facility siting. Should we be satisfied with a 51 percent majority in voting on hazardous facilities, or is a greater "super-majority" needed? How should the will of a community be measured, and do governing institutions allow the will of the people to be expressed? It should be acknowledged, for example, that the United States Senate was created to temper, modify, and balance the "will of the people" as expressed in the House of Representatives.¹³⁰

One possible objection to these criticisms of the Mescalero voting process is that outsiders do not have a right to question how others govern themselves. According to Michael Gerrard:

Traditional Western notions of democracy are confounded when assessing the nature of tribal consent to a hazardous facility. In some tribes, the governing body is elected by the members of the tribe, but other tribes are governed at least in part by hereditary leaders or by theocracies Outsiders who try to challenge the legitimacy of a decision made by a tribal council find themselves in the awkward, if not untenable, position of attacking the way a different culture has come

who knows a thing about nuclear waste, except what you've heard, and I'm sure you've heard the positive side of it.'" Enson, *supra* note 108, at 150. The meeting was eventually allowed, and several Native American environmentalists from around the country came to the reservation to speak out against the MRS. Laws said only 150 Tribe members came to the meeting and attributed the low turnout to the fact that the tribal government would not allow Tribe members to take administrative leave from their jobs to attend. *Id.*

128. *Fred Peso Testimony, supra* note 14.

129. Wald, *supra* note 48, at A18.

130. See THE FEDERALIST Nos. 62, 63 (James Madison).

to govern itself.¹³¹

This objection may be countered by the fact that the opposition to the MRS and to the tactics used by the leadership came from within the Tribe. The decision-making process in the context of the MRS was not so much a matter of tribal "culture" as a subversion of true deliberation and consensus-building.

EXTERNALITIES

A further question raised by this discussion of voting is who should have a say in the decision about whether to host a hazardous facility. The number of people that may be harmed by a given facility is usually greater than the number of people in the immediate community. Economists define an externality as "[t]he effect of one party's economic activities on another party that is not taken into account by the price system."¹³² In this case, the residents surrounding the Mescalero reservation and thousands of residents of New Mexico would have suffered harms as a result of the facility but would not have been compensated for those harms. Potential harms included health and safety risks from accidents along transportation corridors as well as negative economic impacts and declining property values resulting from the public stigma associated with nuclear waste.¹³³

The externality argument against the MRS is a strong one, and it has many precedents. Nuisance law prevents individuals from using their private property in a manner that causes, or may cause, harm to neighbors. Municipal zoning laws are the most basic expression of this value; they typically prevent property owners from erecting structures such as factories, radio towers, or parking garages in residential neighborhoods because of the negative impact these structures would have on nearby property owners and a residential quality of life.

The towns in the immediate vicinity of the Mescalero reservation are mountain resort towns that depend on tourism to sustain their economies. The residents of Ruidoso, a town of 5,000 residents 30 miles from the proposed facility, were vociferous in their objections to the Mescalero MRS. As Ruidoso city councilman Frank Potter put it, [w]estern tourism and nuclear storage don't mix."¹³⁴

131. MICHAEL B. GERRARD, *WHOSE BACKYARD, WHOSE RISK: FEAR AND FAIRNESS IN TOXIC NUCLEAR WASTE SITING* 137 (1994).

132. WALTER NICHOLSON, *INTERMEDIATE MICROECONOMICS AND ITS APPLICATION* 708 (6th ed. 1994).

133. See EASTERLING & KUNREUTHER, *supra* note 4, at 137.

134. Wald, *supra* note 48, at A18.

The State of New Mexico was strongly opposed to the MRS as well,¹³⁵ and state officials used the language of externalities to express their objections. John McKean, spokesman for former New Mexico Governor Bruce King, argued: "While these activities are on Indian lands, they have an effect on their non-Indian neighbors At some point, the interests of non-Indian neighbors need to be figured into the equation."¹³⁶ David Dale, a New Mexico environmentalist, echoed this sentiment: "The Tribe is being run by the power companies. The whole sovereign-rights issue is a central problem. How can a small unit of 400,000 acres, with 3,000 people . . . be sovereign and throw their weight against the 1.6 million residents of New Mexico?"¹³⁷

The negative impacts that New Mexico residents were concerned about included transportation risks and the public stigma attached to nuclear waste. This stigma, as well as opposition to nuclear facilities, has a long history.¹³⁸ Public fears stem from real nuclear accidents, radiation releases, and an association with nuclear weapons,¹³⁹ as well as the invisibility and long-lived nature of radioactivity.¹⁴⁰ These fears and concerns can translate into real economic impacts for communities associated with nuclear waste.¹⁴¹

In a 1992 New Mexico case (*City of Santa Fe v. Komis*), a state court awarded a landowner \$337,000 for losses because a road being built near the property will be used for high level nuclear waste shipments to DOE's Waste Isolation Pilot Plant near Carlsbad. The New Mexico Supreme Court upheld the ruling, noting that "if people will not purchase property because they fear living or working on or near a WIPP route, or if a buyer can be found, but only at a reduced price, a loss of value exists" and "the landowner should be compensated."¹⁴² This ruling could have provided precedent for protracted litigation had the Mescalero MRS proceeded.

135. In 1992, the New Mexico House passed "A Memorial Opposing a Proposed Monitored Retrievable Storage Facility in the State of New Mexico," N.M. H. Memorial 66, 40th Leg., 2d Sess., (1992). In 1993, the New Mexico Senate passed "A Memorial Opposing Establishment of a Monitored Retrievable Storage Facility in the State Of New Mexico," N.M. S. Memorial 4, 40th Leg., 2d Sess., (1993).

136. Bryce, *supra* note 32, at 6.

137. *Id.*

138. See Eugene A. Rosa & William R. Freudenberg, *The Historical Development of Public Reactions to Nuclear Power: Implications for Nuclear Waste Policy*, in PUBLIC REACTIONS TO NUCLEAR WASTE 32 (Riley E. Dunlap ed., 1993).

139. See FLYNN ET AL., *supra* note 54, at 12.

140. See EASTERLING & KUNREUTHER, *supra* note 4, at 132.

141. FLYNN ET AL., *supra* note 54, at 65.

142. *City of Santa Fe v. Komis*, 845 P.2d 753, 756-57 (N.M. 1992). The Waste Isolation Pilot Plant is the proposed permanent underground repository for transuranic waste from U.S. weapons production.

In another example of economic impacts, Easterling and Kunreuther surveyed convention planners in 1988 as to how they would rank Las Vegas in choosing a convention site based on news reports about Yucca Mountain, which is approximately 100 miles from Las Vegas. They found that 32 percent of convention planners would lower their ranking of Las Vegas among convention sites if Yucca Mountain opened and that 7.8 percent would no longer consider Las Vegas.¹⁴³ Under a scenario of a minor accident at Yucca Mountain that was "amplified" by significant media attention, 46.2 percent of convention planners would lower their ranking and 14.1 percent would no longer consider Las Vegas.¹⁴⁴ Easterling and Kunreuther estimated that the Las Vegas convention industry could suffer losses between \$173 million and \$450 million in the year after Yucca Mountain opened and more if there were an accident at Yucca Mountain.¹⁴⁵

This survey and other experiences with hazardous waste facilities suggests that the economic concerns of communities near the Mescalero reservation with respect to tourism and property values were justified.¹⁴⁶ In theory, surrounding communities in New Mexico could have been compensated for the economic harms and health risks stemming from the MRS. Such a compensation scheme could have involved drawing concentric circles around the reservation, with compensation decreasing as distance from the MRS increases. It may even have been possible to conduct surveys of how much money would have been needed to be offered people to live a specified distance from an MRS.

According to Michael Gerrard, however, "[t]he state of the art in quantifying the externalities from waste disposal facilities is extremely crude."¹⁴⁷ Compensating New Mexico residents is plausible in theory but totally unworkable in practice. Citizens will tend to overstate their perceived damages to obtain payment, and the externality problem can never be perfectly remedied because there is always a marginal resident who lives just beyond the proposed limit of compensation. At some point a line must be drawn, possibly very conservatively, or else every facility siting proposal will be held up by the monetary and time expense of working out regional compensation. Nevertheless, the potential harms to

143. See Douglas Easterling & Howard Kunreuther, *The Vulnerability of the Convention Industry to a High-level Nuclear Waste Repository*, in PUBLIC REACTIONS TO NUCLEAR WASTE 209, 222 (Riley E. Dunlap ed., 1993).

144. *Id.*

145. *Id.* at 227.

146. Of course, the Mescalero themselves would be subject to this stigma, and it is likely that tourist interest in their ski resort and hotel/casino would decline if the MRS opened. This point is often overlooked in discussions of the case.

147. GERRARD, *supra* note 131, at 72.

New Mexico residents should at least weigh in a moral calculus about the project, though they may not be quantifiable enough to be factored into an economic calculus.

One of the most interesting political questions in siting disputes, and an issue that will become increasingly prominent in the future, is whether regional communities affected by externalities can organize to block a proposed project.¹⁴⁸ In the case of the Mescalero MRS, New Mexico officials probably would have had enough tools at their disposal to block the construction of an MRS. The state controlled issuance of environmental permits and could have tied up the MRS in the courts for years. In addition, the state's delegation in Washington supports its position.¹⁴⁹

BURDEN SHARING AND GEOGRAPHIC EQUITY

Two additional arguments used by New Mexico deserve further analysis. The first was that New Mexico has already done its share for U.S. nuclear programs, as it hosts Los Alamos National Laboratory, Sandia National Laboratory, and the Waste Isolation Pilot Plant for the nation's transuranic wastes.¹⁵⁰ This argument for burden sharing has some merit, although it had less force when the MRS became a private venture compared to when the federal government was attempting to site an MRS. Moreover, New Mexico historically has touted Los Alamos and Sandia as high-tech engines of economic prosperity rather than economic and environmental burdens.

The second argument used by the state was that it is unfair to construct an MRS in New Mexico because most of the nuclear reactors in the United States are in the East and New Mexico did not create any of the waste that would be stored in the MRS (New Mexico has no civilian

148. Upon his departure from the ONWN, David Leroy issued a transition report that urged that supplemental funding be made available to cities, counties, or states near potential MRS host sites so that these jurisdictions could obtain their own information. Leroy suggested that this could potentially have softened their opposition to an MRS. See Elaine Hiruo & Dave Airozo, *Leroy Resigns Negotiator Post, O'Leary Fills in Until Stallings Tapped*, NUCLEAR FUEL, June 21, 1993, at 3.

149. Melinda Kassen, an attorney with the Environmental Defense Fund, explained that while states have "no direct power to block a volunteer site on tribal lands . . . state environmental and health protection laws can serve as barriers to the site obtaining all of the permits and infrastructure necessary for smooth operation of an MRS, [and] a hostile state could significantly slow completion of the [MRS] facility." Melinda Kassen, *Siting the MRS-A Lesson in How Even Bribe's Don't Work*, 7 NAT. RESOURCES & ENV. 16, 19 (1993).

150. See Carter, *supra* note 19.

nuclear power plants).¹⁵¹ This same argument has been used repeatedly by Nevadans in opposing Yucca Mountain as a geologic repository.¹⁵²

The argument for geographic equity has some problems, however. Present nuclear waste storage policy calls for consolidation of nuclear waste into a repository, and perhaps one or two centralized storage facilities may be built in the interim. Even if the locations for all these facilities were in the eastern United States, nearby communities and the host states would bear the cost of the facilities while other eastern states with nuclear generating capacity would receive the benefits. An MRS built in New York or Pennsylvania, for example, would impose burdens on the residents of those states, while the residents of other nuclear generating states such as Illinois or Virginia would bear no burdens.

Nuclear waste facilities, and hazardous facilities in general, impose local burdens and generalized benefits. This geographic imbalance can never really be restored, even with elaborate wealth transfer schemes. It becomes hopelessly muddled to attempt to draw the geographic lines and trace the economic ripples to determine which communities are getting benefits from nuclear technology and which are bearing the costs.

The reason arguments about geographic equity and burden sharing can become complicated is that they are based on three seemingly laudable but contradictory objectives:

1. Areas that enjoy the benefits from waste generation should bear the costs of disposal;
2. No place should bear an inordinate burden for environmental hazards; and
3. Facilities should be placed in the technically best location to minimize health and environmental impacts.¹⁵³

These goals can be contradictory, because if the first principle is followed and chemical waste landfills are located near chemical factories and nuclear waste storage facilities are located near reactors, the second principle is often violated. The third principle most often implies that hazardous facilities should be located far away from densely populated areas, but locating facilities in rural areas (sometimes decried as rural discrimination) can contradict the first principle.¹⁵⁴

151. See Elaine Hiruo, *Mescaleros Want to Begin Talks on Siting Spent Fuel Facility*, NUCLEONICS WEEK, August 12, 1993, at 1.

152. EASTERLING & KUNREUTHER, *supra* note 4, at 143.

153. GERRARD, *supra* note 131, at 84.

154. *Id.*

In sum, then, arguments against the MRS based on geography and burden sharing were not among the strongest that were made against the MRS, especially after the MRS became a private venture.

CONCLUSION

The difficult questions of environmental ethics raised by the Mescalero proposal to host an MRS lie at the heart of the heated passions it aroused. What was at stake in the proposal were core ethical values such as self-determination, democratic consent, procedural and distributional equity, compensation for harms, and political sovereignty.

Determining the comparative value among the myriad arguments advanced in favor of and against the MRS is not merely an academic exercise. The likelihood of future battles over siting hazardous facilities, possibly involving Native Americans, argues for a careful evaluation of claims so that policy makers may avoid situations in which emotion overpowers rational decision-making. Similarly, opponents of such facilities, by restricting their arguments to sound ethical principles, may avoid becoming the unwanted protectors of communities who believe a project is in their interests.

The most compelling arguments against the Mescalero MRS were that it harmed U.S. nuclear waste disposal policy and that there was a strong likelihood that the Tribe voted for the facility under some amount of duress and intimidation by its leadership. In addition, the apparent targeting of Indian tribes by the federal government to host an MRS raised ethical concerns given the history of harm imposed on Indians by government nuclear programs. If the issues of compensation and economic justice are considered separately, however, it would be very difficult to dismiss the proposal as economic exploitation of a poor community by wealthy utilities. Respecting a community means respecting its right to make economic decisions for itself.

The political battle over the Mescalero MRS and the divisions it caused within the Tribe are further evidence of the social conflicts that have always surrounded nuclear waste storage and disposal. Reforming the present course of U.S. nuclear waste policy not only requires technical know-how but also a sensitivity to some of the ethical and social values that have been described in this article.