Nuclear Waste and Native America: The MRS Siting Exercise*

M. V. Rajeev Gowda & Doug Easterling**

Introduction

The U.S. government's quest to store high-level nuclear waste has had many interesting twists and turns. One set of developments stands out as unique — efforts to site a temporary Monitored Retrievable Storage (MRS) facility on lands belonging to Native Americans. We describe the history and logic of the government's process which led to the involvement of Native Americans and the reactions of some tribes to the MRS option. We also provide cross-cultural perspectives on issues such as risk perception and equity and consider various policy dilemmas raised by efforts to site a nuclear waste storage facility on Native American lands.

The History and Logic of the MRS Siting Process

As part of its efforts to support the development of the nuclear energy industry, the U.S. government took responsibility for establishing a storage site for high-level nuclear wastes (spent fuel in particular) by January 1998. It has long tried to site both a permanent geologic repository and an above-ground MRS facility for interim storage[1] of spent fuel. During the 1970's, the Atomic Energy

* A version of this paper was presented to the Association for Public Policy Analysis and Management. We thank Rob Anex, Catherine Blaha, Rick Farmer, Will Focht, Morris Foster, Jeff Fox, Steve Galpin, Tom James, Howard Kunreuther, Paula Long, Mark Meo, Scott Morrison, Robert Rundstrom, Grace Thorpe, and especially Shawna Turner and members of the Sac and Fox Nation for comments and assistance.

** Rajeev Gowda is Research Fellow in the Science and Public Policy Program and Assistant Professor, Political Science, at the University of Oklahoma. He holds a Ph.D. (Public Policy and Management) from the Wharton School, University of Pennsylvania and an M.A. (Economics) from Fordham University. Email: *gowda@ou.edu*. Doug Easterling is Director, Research and Evaluation, Colorado Trust. He received a Ph.D. (Public Policy & Management) from the Wharton School and an M.A. (Quantitative Psychology) from the University of North Carolina. Email: *doug@coltrust.org*.

1 An MRS facility stores spent fuel above ground for a relatively short period of time. It serves as a way station in the transfer of spent fuel from nuclear reactors (where the fuel rods are held either in temporary storage pools or above-ground casks)

Commission and the Department of Energy employed traditional siting procedures[2] to locate a permanent repository. This strategy was revised in 1982 when Congress passed the Nuclear Waste Policy Act (NWPA)[3] which provided a comprehensive policy for dealing with the nuclear waste problem, including "science-based" approaches to siting both a repository and an MRS facility. However, strong public and political opposition limited the practical viability of the NWPA.[4] In response, Congress amended the NWPA in 1987[5] to create a bifurcated approach around the siting impasse. The permanent repository was to be sited by Congressional fiat,[6] while a voluntary process was stipulated for the MRS facility. Further, no MRS facility could be built until a permanent repository was issued a license.

In theory, a voluntary siting approach holds much promise. Ideally, a developer would not unilaterally select a site, but rather invite all communities with technically suitable locations to enter into negotiations. When a community decided it was interested (e.g., through a referendum), its designated representatives would work with the developer to craft a mutually acceptable facility proposal. This proposal would stipulate a site for the facility, the conditions under which the facility would operate, and the nature of the benefits to be awarded to the host community. If more than one community were interested, the developer would select the site that was most attractive on some grounds (e.g., lowest cost, minimal risk). The voluntary approach was thus expected to satisfy the criterion of economic efficiency. It was also expected to address the main non-economic

to the geologic repository. Various designs have been suggested for MRS facilities, but in all cases the wastes are isolated through engineered, rather than geologic, barriers.

2 *I.e.*, decide-announce-defend.

3 *See* Nuclear Waste Policy Act, Pub. L. No. 97-425, 96 Stat. 22002 (1983) (codified at 42 U.S.C. §§ 10101 et seq. (1983)).

4 *See* Luther J. Carter, **Nuclear Imperatives and the Public Trust: Dealing with Radioactive Waste** (1987); Doug Easterling & Howard Kunreuther, **The Dilemma of Siting a High-Level Nuclear Waste Repository** (1995); Amy McCabe & Michael Fitzgerald, *Prospects for Monitored Retrievable Storage of High-Level Nuclear Waste*, 10 **Pol'y Stud. Rev.** 167 (1992); Brent E. Sigmon, *Achieving a Negotiated Compensation Agreement in Siting: the MRS Case*, 6 **J. Pol'y Anal. & Mgmt.** 170 (1987).

5 *See* Nuclear Waste Policy Amendments Act of 1987, Pub. L. No. 100-203, 101 Atat. 1330 (codified at 42 U.S.C. § 10101 (1987)).

6 Yucca Mountain, NV, was designated as the only site to be considered.

obstacles to the siting of noxious facilities: adverse perceptions of the risks involved (heightened due to a perceived lack of control), lack of community participation, lack of trust in the managers of the facilities, and concerns over the fairness of both the procedures used to choose sites and the eventual outcomes.[7]

The voluntary siting process for the MRS facility was to be implemented by the Office of the Nuclear Waste Negotiator that was specially created by the 1987 amendments to the NWPA.[8] The Negotiator was authorized to seek states, counties, or Native American Nations that might be interested in hosting such a facility in return for monetary and other compensation. As a baseline, Congress authorized the host state or nation to receive $5 million per year prior to the shipment of waste and $10 million per year during the operational phase of the MRS facility.[9] The Negotiator was free to negotiate a benefits package well in excess of these figures.

The specific process used to find "volunteer" sites for the MRS facility was crafted by the first Negotiator, David Leroy.[10] During his tenure as Negotiator, Leroy fashioned a siting process that was guided by the following principles: (1) the process must be truly voluntary, (2) requests for information and preliminary discussion would not be viewed as a commitment to proceed further, and (3) all dialogues were terminable at the will of the prospective host.[11] Before Leroy would consider a state, county, or tribe as a potential host for an MRS facility, he required the jurisdiction's elected representatives to invite negotiations. A state would be considered as a candidate for a facility only if the governor explicitly endorsed the request. Counties also could make such a request, but Leroy would negotiate with a county only if the governor of the respective state assented to the local request;

7 *See* **Hazardous Waste Siting and Democratic Choice** (Don Munton ed., 1996); Barry G. Rabe, **Beyond NIMBY: Hazardous Waste Siting in Canada and the United States** (1994).

8 *See* Nuclear Waste Policy Amendments Act of 1987.

9 *See* Nuclear Waste Policy Amendments Act of 1987 § 171.

10 Although the Office of the Nuclear Waste Negotiator was authorized in 1987, the position went unfilled until June 1990 when President Bush appointed David Leroy, the former Lieutenant Governor of Idaho.

11 *See* Office of Nuclear Waste Negotiator, 1991 Annual Report to Congress (1992).

the governor retained the right to take the county out of consideration. A Native American tribe would be considered only if a request came from the elected representatives of the tribe. Leroy also would allow interested jurisdictions to opt out at any time up until a proposal was submitted to Congress. According to Leroy, communities had an "unfettered right to say 'no'."[12]

The specific level and form of the benefits provided to a host state or tribe would be determined through negotiations with Leroy, subject to congressional approval. Grants could be obtained for such purposes as infrastructure improvement, cleanup of environmental problems, educational assistance programs, economic development, and recreational facilities. Although Leroy acknowledged that the availability of benefits provided key leverage, he took pains to avoid the perception that he was "buying" the host community. He asserted that "affected stakeholders must satisfy themselves on all conceivable issues of safety, control, technology, and acceptability."[13] Leroy emphasized the variety of non-monetary incentives available and stressed the importance of fully dealing with safety concerns before discussing economic benefits. He guaranteed that:

> the choice of technology is negotiable. So are oversight controls, size and time limitations, operating parameters, fees and facility ownership.... The host will have a powerful, if not controlling, influence on how it proposes to address this national problem.[14]

Finally, Leroy recognized the importance of providing communities with the means to investigate and develop their interests in hosting an MRS facility. "Study grants" were offered to allow communities a way to investigate the risks and benefits of hosting an MRS facility without making a committment. These were divided into three phases. Phase I grants of $100,000 gave the community an opportunity to learn about the technical aspects of high-level waste storage and to determine whether there was a real interest in hosting the facility. Phase II-A

---

12 David H. Leroy, **The Challenge of Beginning: Questions and Answers About Negotiated Nuclear Facility Siting in the 1990's**, speech to 3d Ann. Int'l High Level Radioactive Waste Management Conference, (Las Vegas, NV, Apr. 13, 1992).

13 David H. Leroy, **Federalism on Your Terms: An Invitation for Dialogue, Government to Government**, speech to the National Congress of American Indians (S.F., Cal., Dec. 4, 1991).

14 Leroy, *supra* note 12, at 15-16.

grants provided $200,000, and required a more focused investigation of potential sites and local response. Phase II-B grants provided a much higher level of support ($2,800,000), but called for still deeper studies and required the community to confer with the Negotiator.[15] No strings were attached to these grants, and they were staged to move interested communities toward commitment.

The Process at Work in States and Counties

Leroy's overtures were met with resounding silence by the nation's governors. The political, environmental, and ideological connotations of hosting a nuclear waste storage facility overshadowed any possible economic benefits under the Negotiator's program. Still, elected officials from four counties: Grant County, North Dakota; Fremont County, Wyoming; San Juan County, Utah; and Apache County, Arizona, submitted applications for Phase I study grants. At least four other counties were interested in applying for a grant, but were blocked from doing so by their governors.[16] Leroy also received a handful of other "serious inquiries" that did not translate into applications for study grants.[17]

The Negotiator approved Phase I study grants for three of the four counties that applied: Grant, Fremont, and San Juan. The Grant County study, however, never went forward. Although all three county commissioners supported the application, the citizens of Grant County had not been formally consulted. When it became known that Grant County had been awarded a grant, an angry electorate recalled all three commissioners. Although they kept the $100,000 grant, the new commissioners terminated any further study of an MRS facility.[18] High levels of opposition surfaced throughout Wyoming and Utah, and overwhelmed the interest expressed by the sparsely populated applicant counties. Although the respective governors had initially consented to allow counties to apply for study grants, they each refused to allow the process to advance to more serious levels of negotiation.[19]

15 *See* Office of Nuclear Waste Negotiator, 1992 Annual Report to Congress (1993).

16 *See id.;* Jim Carrier, *Tribe Mulls Nuclear Dump*, **Denv. Post**, Apr. 14, 1993, at A1; Keith Rogers, *Miller Predicts Problems If Officials Pursue Nuke Bid*, **Las Vegas Rev. J.**, Oct. 17, 1991, at A1.

17 *See* Office of Nuclear Waste Negotiator, *supra* note 15.

18 *See id.*

The lack of receptivity on the part of the nation's governors severely compromised whatever hopes for success might have been associated with the Negotiator's voluntary siting process. Not only were the governors unwilling to enter into any communication with the Negotiator, they also thwarted any meaningful participation on the part of those counties that expressed even a preliminary interest in hosting an MRS facility. The only entities left for the Negotiator to approach, therefore, were Native American nations. Although governors had the statutory authority to veto county participation in the Negotiator's program, Native American nations enjoyed a level of sovereignty that precluded interference from state-level officials.[20]

The issue of sovereignty assumed a high profile in Leroy's overtures to Native Americans. In a 1991 speech, Leroy invited tribal leaders "to dictate their own terms" for hosting an MRS facility.[21] While avoiding any obvious overtures to "target" Native Americans for an MRS facility, the Negotiator's Office spent much of its time responding to the interest that various tribal councils showed in acquiring economic benefits in return for hosting the facility.[22]

---

19 Mike Sullivan, **Letter to Fremont County Commissioners Refusing to Allow Them to Proceed with the Siting of an MRS**, (Aug. 21, 1992); Michael Leavitt, **Policy Statement by Governor Leavitt on Monitored Retrievable Storage** (Salt Lake City, UT: Office of Governor, 1993).

20 The actual scope of tribal sovereignty has been the subject of considerable debate in the courts, especially on matters such as gambling and taxation, it remains unclear whether tribes may fully ignore the laws of the states in which they are located. However, in the case of the Nuclear Waste Negotiator, state officials had no jurisdiction over the arrangements that tribes formed with the Negotiator.

21 David H. Leroy, **Moving Beyond the Headlines: Negotiated Nuclear Facility Siting in the 1990's**, speech to the 2d Ann. Int'l High Level Radioactive Waste Management Conference (Las Vegas, NV, Apr. 30, 1991).

22 During the tenure of the Negotiator's Office, a total of 24 Indian tribes applied for study grants. Phase I grant applications were submitted by 20 tribes. Of these, 17 were approved by the Negotiator. However, four of the approved applications (the Chickasaw, Sac and Fox, Absentee Shawnee, and Caddo Tribes — all in Oklahoma) were withdrawn before funds were issued.

After studying the advantages and disadvantages of hosting an MRS, 8 of the 13 tribes that received Phase I study grants dropped out of the process. This left the Mescalero Apache Tribe (New Mexico), the Prairie Island Community (Minnesota), the Skull Valley Band of the Goshutes (Utah), the Eastern Shawnee Tribe (Oklahoma), and the Fort McDermitt Paiute/Shoshone Tribe (Oregon and Nevada) to proceed to Phase II-A, where another $200,000 in grants was available. Four other tribes that by-passed Phase I also applied for Phase II-A grants: Miami Tribe

A total of 24 tribes applied for study grants, with 20 coming into the process during Stage I and four others during Stage II-A. However, only a fraction of these represented serious interest on the part of the applicant tribes. For example, among the 20 applications for Stage I grants, three were rejected by the Negotiator, four others were withdrawn by the tribe before funds were disbursed, and eight others dropped out of the process shortly after receiving their Phase I funds. This left only five of the initial 20 applicants to move onto Stage II-A (although four others entered into the process at that point). In the end, only four tribes — the Mescalero Apache of New Mexico, the Skull Valley Goshute of Utah, the Tonkawa of Oklahoma, and the Fort McDermitt Tribe of Oregon and Nevada — remained committed to the MRS facility as they explored the opportunity in greater depth. In August 1993, the Mescalero Apache Tribe submitted an application for a Phase II-B grant stating that it was ready to begin "credible, formal discussions" regarding hosting the MRS facility. A second application for a Phase II-B grant was submitted by the Skull Valley Goshutes who wanted to volunteer a site near the Dugway Proving Grounds in Utah.

The interest expressed by Native American tribes, particularly the Mescalero Apache, raised significant concern on the part of state officials. The prospect of an MRS facility in central New Mexico was extremely unpopular among the non-Native American population of the state, especially since New Mexico was already the host of another nuclear waste repository, the Waste Isolation Pilot Project near Carlsbad for "transuranic" waste.[23] Because state officials had no authority to intervene in the negotiations, they sought another approach to block the Mescaleros from pursuing an MRS facility. Senator Jeff Bingaman (D-N.M.) sponsored legislation that would have required interested tribes to gain the cooperation of state and local officials before receiving study grant funds. Congress went further and voted to cancel the entire study-grant program in October 1993.[24]

(Oklahoma), Ute Mountain Ute Tribe (Colorado), Tonkawa Tribe (Oklahoma), and Northern Arapaho Tribe (Wyoming).

23 *I.e.*, plutonium and other "atomically heavy" by-products of the nuclear weapons production process.

24 *See Western Interstate Energy Board, Mescalero Apache Tribe*, **W. Energy Update**, Oct. 22, 1993, at 18.

Even without the prospect of study grants, the Skull Valley Band of Goshute, the Fort McDermitt Tribe, and the Tonkawa continued to work with the Negotiator to put together proposals for the facility.[25] Leroy served as Negotiator until June 1993, when the Clinton administration appointed Richard Stallings, a former Congressman from Idaho, in his place. Stallings remained in office until authorization for the Negotiator expired in December 1994. Congress failed to reauthorize the office not because the voluntary siting process was deemed a failure, but rather because it appeared that a volunteer might actually be found. The Mescalero Apache tribe in New Mexico was close to volunteering to host an MRS facility despite the objections of state officials. Members of the New Mexico Congressional delegation led an effort to gut the Negotiator's office to prevent the Mescaleros from proceeding.

As the Negotiator's Office lost its power, the Mescalero Apache and the Skull Valley Band of Goshute began working outside the Negotiator's process with a private consortium of utilities headed by Northern States Power Company. These utilities had doubts that a federal MRS facility would be built in time to meet the federally mandated 1998 deadline for the acceptance of spent fuel by the government. If the federal effort failed, a private MRS facility could serve as a backup.[26] While the utility consortium's negotiations with the Mescalero Apache broke down over the financial terms involved,[27] the Skull Valley Band of Goshute were still considering nuclear waste storage. The consortium applied for a Nuclear Regulatory Commission license to proceed with such a facility. In response, Utah established the Office of High Level Nuclear Waste Storage Opposition to counter the consortium's efforts.[28]

---

25 *See* Jeff Banard, *Tribe Considers Storing Nuclear Waste*, **Reno Gazette J.**, June 16, 1994, at B4.

26 *See* Heather Border & Clyde Weiss, *Tribes Signs Pact for Temporary Nuclear Waste Dump*, **Las Vegas Rev. J.**, Feb. 5, 1994, at B6.

27 *See* Northern States Power Co., New Release, Apr. 18, 1996.

28 *See* Office of High Level Nuclear Waste Storage Opposition, Opposition to High Level Nuclear Waste Storage (Salt Lake City, UT: Department of Environmental Quality, 1997).

Native American Reactions to the Process

Given that the MRS siting process came to center almost exclusively on Native American communities, it is important to consider the reactions of these communities to the MRS siting effort. Their reactions were tremendously diverse, both intra and inter tribes. The Mescalero Apache and the Skull Valley Band of Goshute, for example, stand out as exceptions in being willing to consider hosting an MRS-type facility, with or without federal government involvement. On the other hand, most tribes were opposed to hosting the MRS facility even with the accompanying economic incentives. Less than 5% of the eligible tribes applied for study grants. Moreover, many of the tribes that did apply were not really interested in hosting an MRS facility. For example, the Sac and Fox Nation of Oklahoma returned the Phase I study grant that it had applied for and had been awarded after a majority of its members opposed any involvement.

In the remaining sections, we discuss various Native American reactions to the MRS siting initiative and highlight how the Native American experience with the MRS process differs from the more typical siting controversies encountered in Anglo-American communities. Our discussion is organized around several of the key factors affecting siting decisions: perceptions of risk, trust, procedural equity, and distributional equity.[29] We draw on a number of references to understand how these issues play out among Native Americans, and in particular, to describe the Mescalero Apache's experience with the MRS process. In addition, our analysis draws on a set of structured interviews with sixteen members of the Sac and Fox Nation (and one telephone interview). The Sac and Fox case provides an opportunity to understand the nature of the objections that emerged within one particular tribe that chose not to pursue the opportunity to consider an MRS facility.

Risk Perception

The widespread perception of danger that often accompanies nuclear waste storage facilities serves as one of the central factors in triggering opposition to nuclear waste siting efforts. As with Anglo-

[29] *See* Doug Easterling & Howard Kunreuther, **The Dilemma of Siting a High-Level Nuclear Waste Repository** (1995).

Americans, the risks were largely the reason Native Americans opposed MRS facilities. Regardless of the integrity of the facility, Native Americans believed there would be a high risk to their people and their land.

There is reason to believe that Native Americans are even more concerned about the risks associated with an MRS than Anglo-Americans.

The MRS facility can be seen as counter to some traditional teachings regarding the fundamental nature of creation. Wallace Black Elk, an elder among the Lakota Sioux, believes that the atomic force that binds the nucleus together is a sacred force; splitting the atom and transmuting matter is viewed as an intrusion into the realm of God and invites retribution.[30] If nuclear power is viewed as a violation of nature, an MRS facility would likely carry this same sense of impropriety.

Similarly, many Native Americans also consider it their duty to protect the land because it is sacred. The land held by a tribe is an integral component of its culture; without the land, future generations could not develop an understanding of their identity as a people, and their sovereignty would be threatened.

Native Americans' special concern over a nuclear-waste storage facility arises partly because they have shouldered a disproportionate burden for the development of nuclear technology. There is significant evidence of radiation contamination in Native American communities from the mining of uranium. The Navajo and the Greater Sioux Nations show by marked increases in infant stillbirths, children born with cleft palates, and cancer deaths.[31] The Radiation Exposure Compensation Act of 1990[32] recognized the claims of Navajo workers in uranium mines and those of numerous Native American victims of radiation exposure from atomic bomb tests in Nevada. Similarly, extensive contamination has also occurred on tribal lands adjacent to U.S. nuclear weapons facilities. For example, the Yakima Nation in Washington state suffered from the contamination of the Columbia

30 *See* Wallace Black Elk & William L. Lyon, **Black Elk: The Sacred Ways of a Lakota** (1990).

31 *See* Winona LaDuke & Ward Churchill, *Native America: The Political Economy of Radioactive Colonialism*, 13 **J. Ethnic Stud**. 107 (1985).

32 *See* Radiation Exposure Compensation Act, Pub. L. No.101-426, 104 Stat. 920 (1990) (codified at 42 U.S.C. § 2210 (1990)).

River from operations at the Hanford nuclear facilities.[33] Contamination from nuclear activities has had clear and severe impacts on the health of Native Americans, especially in the western U.S. An MRS facility would suggest to many a continuation of these health effects.

Our interviews suggest that many Sac and Fox tribal members believed that the potential for radiation leakage from a facility would entail significant health risks to tribal members. In contrast, the Mescalero Apaches' perceptions of the risks from the MRS facility were balanced by a broader focus on both the tribe's ability to manage risks and on the benefits associated with the facility. The Mescaleros' support for the MRS facility stemmed primarily from their focus on the economic benefits associated with the facility. There was also a complementary sense among many (although certainly not all) tribal members that an MRS facility on Mescalero lands would be operated safely. This confidence stemmed in part from the tribe's intensive study of the nuclear waste issue and the proposed technology. Using funding from the Negotiator's study grants, the tribe hired technical experts to advise them on the long-run safety of an MRS facility and conducted site visits of comparable storage facilities.[34] This information convinced the tribal council that safe storage of spent fuel was possible using available technology. Moreover, the tribe's chairman, Wendell Chino, suggested that the Mescaleros could provide for an even safer site than non-Native American communities. He argued that because the Mescaleros have a cultural tradition of harmony with nature and protecting the earth, the tribe was arguably a more appropriate guardian of nuclear wastes than adherents of mainstream American culture.[35]

On the other hand, the Mescalero opponents of the MRS facility, though in a minority within the tribe, voiced strong concern about the potential risks posed by nuclear wastes to the tribe and its lands, and questioned the tribal government's intentions and capacity in the MRS

33 *See* Keith Schneider, *Grants Open Doors for Nuclear Waste*, **N.Y. Times**, Jan. 9, 1992, at 9.

34 *See A Conversation With Miller Hudson*, **The Nuclear Rev.**, Aug. 1995, at 20.

35 *See* Thomas W. Lippman, *Tribe Considers Nuclear Dump*, **N.Y. Times**, Oct. 21, 1991, at A17; Matthew L. Wald, *Nuclear Storage Divides Apaches and Neighbors*, **N.Y. Times**, Nov. 11, 1993, at A18.

facility context. Their perceptions of risk were illustrated through a culturally unique narrative. A leading Mescalero opponent of the MRS facility, Rufina Laws, spoke of her dream of "glowing liquid flowing down the slopes of the sacred Sierra Blanca, wiping out everything it touched."[36] A number of Mescalero Apache tribal members accepted this vision as evidence of the dangers posed by the MRS facility and supported Laws in her campaign against its siting.[37] In the end, however, a majority of the tribe approved the MRS facility. This approval seemingly endorsed the tribal council's contention that whatever risks the facility might pose to current and future generations, they would be outweighed by economic opportunities, in the form of direct payments to the tribe and jobs for skilled tribal members.[38] This feature was key to overcoming adverse risk perceptions among the Mescalero Apache.

Trust

As in siting contexts generally, trust was a key factor which affected Native American support or opposition in the MRS facility context. Trust is particularly important in the context of voluntary interactions; for cooperative arrangements to be effective, participants need to trust one another and feel confident that they can competently carry out their respective roles in the transaction.[39] One of the most salient concerns among Native Americans, which also enhanced the perceived risk associated with the MRS facility, was a lack of trust in the ability and willingness of the federal government to manage the facility safely. For example, Sac and Fox opponents of the MRS facility were not convinced that federal agencies would exercise diligence in protecting tribal members from the risks of an MRS facility. They were also concerned that the federal government might invoke sovereignty arguments to abdicate responsibility to the tribe.

---

36 *See* Michael Satchell, *Dances With Nuclear Waste*, **U.S. News & World Rep.**, Jan. 8, 1996 at 29.

37 *See* Leslie Linthicum, *Vote Tears Rift in Tribe*, **Albuquerque J.**, Mar. 10, 1995 at A1; Matthew L. Wald, *Nuclear Storage Divides Apaches and Neighbors,* **N.Y. Times**, Nov. 11, 1993, at A18.

38 *See* Tony Davis, *Flip-Flop on Storing Waste Shakes Up Tribe*, **High Country News**, May 29, 1995, at 6.

39 *See* Roger E. Kasperson et al., *Siting Hazardous Facilities and Communicating Risks Under Conditions of High Social Distrust,* 48 **J. Soc. Issues** 161 (1992); Paul Slovic, *Percieved Risk, Trust and Democracy*, 13 **Risk Anal.** 675 (1993).

Such concerns are grounded in the historical record of Native American interaction with the federal government, which does not inspire confidence and is commonly termed "The Trail of Broken Treaties." The federal government's attitudes and policies toward Native Americans have fluctuated over the years, marked by idealism in the post-revolutionary period, by the forcible relocation of numerous tribes under President Andrew Jackson, by positive efforts in the 1930's aimed at tribal government revival, and by the dissolution of the federal-tribal relationships and land annexations which affected many tribes in the 1950's. The historical legacy has included periods where the Supreme Court itself was rendered impotent in enforcing verdicts favorable to Native Americans; for example, the Marshall Court's decision in Worcester v. Georgia was flouted with impunity under President Jackson, and the relocation of Native American tribes, mostly to Oklahoma, ensued.[40] Because of this history, it is not surprising that Native Americans would regard the Negotiator's promises with deep skepticism.

This lack of trust made Native American opponents of the MRS facility suspicious of the study grants which were a central part of the MRS siting process. For example, Sac and Fox opponents of the MRS facility argued that it was unthinkable that the federal government would "give away" $100,000 for a study grant with no strings attached. They questioned the federal government even considering nuclear waste siting on tribal lands, especially when tribes typically did not have strong internal regulations, expertise, or enforcement mechanisms. This lack of trust extended to other unconnected events. Sac and Fox opponents of the MRS facility argued that the recent upgrading of the highway which ran through the tribal headquarters from state to federal status was an indication that the federal government was planning to present the tribe with a fait accompli. This added to opponents' contention that the MRS facility would not be a temporary facility and that the process would not be truly voluntary.

In contrast, a significant feature affecting Mescaleros' support for the MRS siting exercise was their trust in their tribal government's

[40] *See* Rennard Strickland, *Native Americans*, in **The Oxford Companion** on the U.S. Supreme Court (1992).

ability to manage its ventures effectively. This was justified by the tribe's track record of establishing flourishing enterprises that have generated significant revenues and enhanced its economic condition. The tribe, under the leadership of long-time chairman Wendell Chino, runs successful ventures such as the Inn of the Mountain Gods (a casino complex) and the Ski Apache resort, both located near Ruidoso, New Mexico. These ventures have made the tribe comfortable with a capitalistic orientation to economic development. Indeed, Chino has stated that, "The Navajos make rugs, the Pueblos make pottery, and the Mescaleros make money."[41] The MRS facility was viewed by the majority of Mescalero Apaches as another opportunity to enhance the economic status of members of the tribe. The MRS facility was even expected to serve tribal interests better than the casino and ski resort by providing the types of high-technology jobs that would attract technically-trained Mescalero Apache back to the tribe for employment.[42] This was expected to reduce unemployment and further enhance the tribe's cohesiveness and self-confidence. Thus issues of trust worked in favor of the MRS facility proposal among the Mescalero Apache.

Procedural Equity

In order to overcome opposition to siting proposals, it is important that the procedures used to arrive at a siting decision are perceived as fair by all parties involved.[43] This feature seems to have been well understood by the Negotiator. The voluntary siting process for the MRS facility was explicitly oriented toward addressing concerns over procedural equity. However, in the Native American context, procedural equity is a complex concept.

In the Sac and Fox tribe, for instance, the Negotiator's siting process was regarded as inadequate in terms of satisfying procedural equity. The Sac and Fox application for a study grant had been submitted by the elected officials of the tribe, who are recognized as the legitimate decision makers under the Indian Reorganization Act.

41 Michael Satchell, *Dances With Nuclear Waste*, **U.S. News & World Rep.**, Jan. 8, 1996, at 30.

42 *See id.*

43 *See* Elaine Vaughan, *The Significance of Socioeconomic and Ethnic Diversity for the Risk Communication Process*, 15 **Risk Anal.** 169 (1995).

Although their actions were in accordance with the procedures prescribed by the tribal constitution, there was concern among tribal members that the tribe's participation in the MRS siting process had not been discussed openly to obtain the consent of the entire tribe. This concern crystallized in the form of a petition for a special tribal meeting initiated by tribal member Grace Thorpe.[44] A meeting was held in January 1992 after the petition received the number of signatures required by the tribal constitution. At this meeting, the tribal chairman announced that the business council had only decided to accept an MRS facility phase I study grant and that the tribe would withdraw from the MRS facility siting process thereafter. After some discussion on the issue, Grace Thorpe moved a resolution to the effect that the tribe withdraw from the MRS facility siting process altogether. With support from other opponents of the proposal, this resolution carried by a substantial margin, and terminated the Sac and Fox's involvement with the MRS facility.

The proponents of the MRS facility among the Mescalero, on the other hand, displayed a keen appreciation for procedures and their importance to legitimacy. The tribal council initially sponsored a referendum in January 1995 to gain support for the venture. However, the MRS facility proposal was defeated by a margin of 490 to 362. Rufina Laws, a tribal member who had recently lost an election against Wendell Chino for Tribal Chairman, received significant credit for the defeat of the MRS facility proposal. She conducted a door-to-door campaign against the proposal and spoke widely of her vision of "glowing liquid flowing down the slopes of the sacred Sierra Blanca" that spurred her to action.[45]

The referendum outcome galvanized supporters of the MRS siting proposal. Taking advantage of the tribal constitution which allowed for a new referendum when requisitioned by two hundred tribal members, MRS facility supporters organized a new vote on the issue. Concurrent with this referendum were significant divisions within the tribe, with the tribal government launching an education campaign to counter what it alleged was misinformation about the proposal spread by non-Native environmental activists. Under the new referendum, the proposal to

44 Daughter of the renowned Olympian Jim Thorpe.

45 *See* Satchell, *supra* note 41.

host the nuclear waste facility passed by a margin of 593 to 372.[46] Although a majority of tribal members voted in favor of proceeding with siting an MRS facility, a significant minority harbored strong reservations about the facility.

The Mescaleros' appreciation for the importance of procedure was also evident in their negotiations with Northern States Power Company in February 1994, which called for the construction of a facility on tribal lands. Under the agreement, the facility would begin accepting shipments in 2002 and hold spent fuel for 40 years. In return, the tribe would receive economic benefits in the form of jobs and direct payments, which would amount to approximately $50 million per year over 20 years.[47] The tribe succeeded in ensuring that any MRS facility built on Mescalero lands would be only for temporary storage by stipulating that a Mescalero MRS facility would accept only a fraction of the spent fuel from the utilities. Because these wastes are currently stored on-site at reactors, this provision meant that the Mescalero MRS facility could not become the de facto sole storage site. This provision thus maintained the federal government's incentive to build a permanent repository.[48] Further, the tribe indicated that it would accept nuclear waste only if the title to the waste remained with the generating utility, thereby ensuring that liability would be borne by the utility in accordance with the Price-Anderson Act. By retaining significant control over the terms of the MRS facility, the tribe achieved a certain degree of sanguinity in their beliefs about how well the facility would perform.

Distributional Equity

When a community which does not benefit from nuclear power is asked to bear the risks and burdens of nuclear waste, such an outcome can be considered distributionally inequitable (i.e., who bears the costs of a noxious facility and who garners the associated benefits).[49] The Mescalero Apache experience presents a challenge to notions of

46 *See id.*

47 *See* Heather Border & Clyde Weiss, *Tribes Signs Pact for Temporary Nuclear Waste Dump*, **Las Vegas Rev. J.**, Feb. 5, 1994, at B6.

48 *See A Conversation With Miller Hudson*, **The Nuclear Rev.**, Aug. 1995 at 20.

49 *See* Elaine Vaughan, *The Significance of Socioeconomic and Ethnic Diversity for the Risk Communication Process*, 15 **Risk Anal.** 169 (1995).

distributional inequity because the tribe became an exemplar for the promise of voluntary siting in overcoming such concerns. It freely entered into the process, used study grants to explore the fit between the facility and the tribe's own interests, granted all voting members a say over the tribe's decision, and sought out alternative institutional arrangements when Congress closed down the Office of the Nuclear Waste Negotiator.[50] In large measure, the Mescaleros' pursuit of an MRS facility reflected their belief that the facility would promote the most fundamental interests of the tribe, turning a potentially inequitable result into a net positive outcome. The benefits expected from the MRS facility included employment opportunities for youth who might otherwise leave the reservation and funding for much-needed social, cultural, and educational programs. In comparison to the existing unambiguous threats resulting from unemployment, the health risks associated with an MRS facility appeared either trivial or unsubstantiated to most (but certainly not all) tribal members.

Strong opposition to the MRS facility among the Sac and Fox was voiced in spite of the obvious economic benefits associated with hosting the facility. Opponents acknowledged that tribal members faced serious economic hardships and that the MRS facility represented one of the few economic-development opportunities available to the tribe. However, these opponents attributed a number of substantial risks and other costs to the MRS facility, and asserted that proceeding with the MRS facility would not be in the interests of the tribe. These opponents suggested that, in general, a "noxious" facility would be much more acceptable if the facility had a purpose that directly served the needs of the tribe. Since the nuclear waste was not generated by the tribe, these opponents believed there were no intrinsic benefits or responsibility for hosting the MRS facility. If a project had been one with a purpose that more directly benefitted the tribe, it is possible that concerns over distributional inequity would have been transcended.[51]

50 *Conversation*, *supra* note 48, at 20.

51 As an example, these Sac and Fox tribal members noted that they were favorably inclined toward the construction of a Juvenile Detention Center, initially for Native American juveniles, on tribal land. This facility was viewed as having a positive purpose for the tribe: it would generate employment and promote self-sufficiency, but more importantly provide an opportunity for troubled children to turn their lives around. These effects were viewed in highly positive terms and offset any potential stigma

Policy Dilemmas Raised by the MRS Siting Experience

The diversity in Native American reactions to the MRS siting proposal and the fact that Native American tribes are still hosting such a facility, makes assessment of the process a complex challenge. For example, it is difficult to criticize the process from an "environmental justice" perspective. Environmental justice is a concept that goes beyond the traditional focus of distributional equity, to consider explicitly other socioeconomic aspects of distributional outcomes such as whether the host community is predominantly minority, poor, or rural. When siting of noxious facilities disproportionately occurs in communities populated by racial minorities or in poor, rural communities, such an outcome is termed environmentally unjust.[52]

However, the environmental justice criticism of siting outcomes typically applies to involuntary siting situations. In contrast, the MRS siting process was explicitly voluntary in its application. Yet critics of the MRS facility process still criticize the process on environmental justice grounds. They argue that building a facility such as an MRS facility in a poor community imposes an extra burden on an already disenfranchised population.[53] We, therefore, discuss some of the complex questions that arise in assessing the MRS facility process from environmental justice and other viewpoints.

How voluntary was voluntary siting of an MRS facility on Native American lands?

The MRS siting process, it turns out, was not unique. In the U.S., voluntary siting efforts have often involved Native Americans. This tendency reflects two key conditions. First, their reservations are among the poorest communities in the country. According to the 1990 census, 50.7% of Native Americans living on reservations have incomes below the federal poverty level.[54] Because of rampant poverty, any opportunity for economic development, including the hosting of waste-disposal facilities, is afforded serious consideration.

associated with hosting the center.

52 *See* Vicki Been, *What's Fairness Got to Do With It: Environmental Justice and the Siting of Locally Undesirable Land Uses*, 78 **Cornell L. Rev.** 1001 (1993); **Confronting Environmental Racism: Voices from the Grassroots** (Robert D. Bullard, ed.) (1993).

53 *See* Dick Russell, *Environmental Racism*, 11 **The Amicus J.** 22 (1989).

54 *See* We the First Americans, U.S. Dept. of Com., Bureau of the Census (1993).

The second factor facilitating the involvement of Native Americans in voluntary siting efforts is tribal sovereignty. Federally recognized tribes are treated as "sovereign nations" under law. Although each tribe is subject to federal statutes and a complex "trustee" relationship with the Bureau of Indian Affairs, a tribe is generally not bound by the laws of the state in which it is located. This status is particularly attractive to facility developers, because it allows the licensing process to bypass a number of hurdles that would otherwise be in place. Thus, interested parties outside the reservation (e.g., state officials, residents from nearby communities) have little, if any, influence over siting decisions.[55] Because of these two factors, facility developers often seek out Native American tribes in voluntary siting efforts.[56]

In practice, voluntary siting efforts have created serious complications when applied to Native American tribes. In many cases, the facility proposal precipitates bitter conflicts within a tribe, exacerbating longstanding divisions between traditionalists and those seeking modern forms of economic development.[57] Even when there is agreement within a tribe as to the desirability of a facility, opposition often emerges from its neighbors off the reservation, many of whom have a history of conflict or distrust with the tribe.[58] In general, waste facilities tend to energize pre-existing schisms, both within a tribe, and between a tribe and its non-Native American neighbors.

Although it may seem paradoxical to those who champion voluntary siting as a procedurally fair alternative to traditional siting

55 Margaret L. Knox, *Their Mother's Keepers*, 78 **Sierra**, Mar./Apr. 1993, at 50.

56 E.g., National Disposal Systems proposed a hazardous-waste landfill for land controlled by the Mississippi Band of the Choctaws. This facility was supported by the chief of the tribe, but defeated in a tribal referendum. In another case, a Denver-based firm called South Dakota Disposal Systems (SDDS) has attempted to work with the Lower Brule Tribe in South Dakota on a plan that would allow the development of a large municipal-waste landfill. Under the plan, land that SDDS owns 200 miles away from the reservation would be sold to the tribe; the tribe would then annex the land to its reservation, allowing SDDS to operate the landfill free of state regulation. *See* Knox, *supra* note 55, at 50.

57 *See* Dick Russell, *Dances with Waste*, 13 **Amicus J**. 28 (1991); Knox, *supra* note 55, at 50; Leslie Linthicum, *Vote Tears Rift in Tribe*, **Albuquerque J.**, Mar. 10, 1995 at A1; Ronald Smothers, *Future in Mind, Choctaw Reject Plan for Landfill*, **N.Y. Times**, Apr. 21, 1991 at A22.

58 *See* Robert Reinhold, *Indians and Neighbors Are at Odds Over Waste Dump on Reservation*, **N.Y. Times**, Jan. 8, 1990, at A1.

policy, many people view this process as inequitable, particularly as it relates to locating waste facilities on tribal lands. Lance Hughes, a member of the Creek tribe and Director of Native Americans for a Clean Environment, decries such efforts as "toxic racism."[59] Similarly, LaDuke and Churchill criticize the siting of an MRS facility on Native American lands as part of a continuing pattern of "radioactive colonialism."[60] These authors claim that the federal government unilaterally abrogates treaties or annexes tribal land to exploit mineral resources such as uranium, and that the modest royalties and employment opportunities associated with uranium mining represented one of the few economic development options available to tribes such as the Navajo. In their view, the Navajo were forced into the position of being an "economic hostage" of the uranium industry.

It appears that voluntary siting may create as many dilemmas as it solves, at least when Native American tribes are solicited for the facility. In particular, should poor communities have to "volunteer" for facilities such as an MRS facility to achieve a basic level of well-being? For many, the positive response of tribes to the Negotiator says less about the fairness of this siting process than it does about the basic inequity in wealth across ethnic groups. This view that tribes have been put in situations where they need compensation and that programs such as the MRS siting process exploit their poverty, is echoed by Susan Shown Harjo, president of the Morning Star Foundation, a Native American advocacy group in Washington. Harjo asserts: "Five hundred years of colonization has done a real job on us. It makes us targets of cash and poverty politics."[61] Under this view, a "voluntary" siting process cannot be truly voluntary as long as the facility represents the only economic hope for poor communities.

Did the MRS process fully ensure procedural equity?

The Negotiator paid special attention to procedural equity by insisting that relevant information be available to all concerned parties, by stating that the MRS siting process would proceed only with

59 Ronald Smothers, *Future in Mind, Choctaw Reject Plan for Landfill*, **N.Y. Times**, Apr. 21, 1991 at A22.

60 Winona LaDuke & Ward Churchill, *Native America: The Political Economy of Radioactive Colonialism*, 13 **J. of Ethnic Stud**. 107 (1985).

61 Keith Schneider, *Grants Open Doors for Nuclear Waste*, **N.Y. Times**, Jan. 9, 1992, at 9.

community consent and through the participation of elected representatives of communities, and by giving communities an opportunity to withdraw at any time in the process. However, these procedural safeguards do not work in a straightforward manner in Native American communities. The reasons for this are both political and cultural.

In terms of political realities within Native American tribes, even if the Negotiator promoted an open sharing of information to candidate communities, procedural inequity could still result from a lack of openness within the community. In particular, some procedural-inequity criticisms involve a lack of accountability on the part of the individuals who serve as the official representatives of Native American tribes — tribal councils. Lance Hughes, Director of Native Americans for a Clean Environment argues:

> There is nothing voluntary or inclusive about this process. Most tribal citizens learn of these MRS applications in the newspaper, if they learn of them at all, because most of our people live under tribal government structures forced upon us by the federal government.[62]

This criticism arises from the fact that the Negotiator designated the tribal council as the "elected representatives" of tribal members and considered voting processes as legitimate. Both of these assumptions are problematic in the Native American context. Tribal councils were instituted by Congress with the Indian Reorganization Act of 1934 to make it easier for the Bureau of Indian Affairs to control the affairs of tribes. The council system replaced traditional decision-making mechanisms, e.g., consensus-based forms of government, under which decisions were made by chiefs or other elders with the input of the entire tribe.[63] LaDuke and Churchill regard tribal councils as an "alien" form of government supplanting indigenous governing structures.[64] They contend that aspects of the reorganization, such as the non-recognition of community ownership in favor of nuclear family

62 Lance Hughes, *Letter to the Editor Regarding a Recommendation for Voluntary Siting*, 7 **Issues in Sci. & Tech.** 19 (Fall 1992).

63 *See* Margaret L. Knox, *Their Mother's Keepers*, 78 **Sierra**, Mar./Apr. 1993, at 50.

64 LaDuke & Churchill, *supra* note 60.

ownership, destroyed traditional organizational structures and traditional resource management patterns. They also criticize tribal councils on the grounds that their mandate to pursue economic development actually results in dependency.

Some forms of development require Native American nations to be willing to participate in adversarial decision-making methods rather than traditional unitary or consensual processes.[65] The MRS siting process is a case in point. There is no simple answer however, to what constitutes a legitimate decision process within a Native American nation. The legitimacy of decision making procedures within Native American nations depends substantially on the traditional forms within the nations that may vary from the autocratic to the consensual.[66]

Further, some tribal councils have historically failed to respond to the will of tribal members, or even inform tribal members before making major decisions, as one would expect in a democratic society.[67] Councils that act in this way hang onto power because many traditionalists decline to vote in council elections, arguing that the tribal council is not a legitimate form of governance. For tribes in which this occurs, it 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.[68] However, we note that the Negotiator did institute some provisions to address this criticism. According to Brad Hoaglun of the Negotiator's office, "almost all of the tribes remaining in the program will hold a tribal vote on whether or not to submit the negotiated agreement to Congress. Tribal councils are being encouraged by the Negotiator's office to seek a consensus from the tribal membership."[69]

---

65 *See* Diane E. Austin, **Knowledge and Values in the Decision Making Around Hazardous Waste Incineration Facilities** (1993).

66 *See* Stephen Cornell & Joseph P. Kalt, *Reloading the Dice: Improving the Chances of Economic Development on American Indian Reservation,* in **What Can Tribes Do? Strategies and Institutions in American Indian Economic Development** (Stephen Cornell & Joseph P. Kalt eds., 1992).

67 *See* Peter Matthiessen, **In the Spirit of Crazy Horse** (1992).

68 *See* Lance Hughes, *Letter to the Editor Regarding a Recommendation for Voluntary Siting*, 7 **Issues in Sci. & Tech.** 19 (Fall 1992); Ana Radelat, *Trading Away Their Future: Will Mescalero Apaches Share Their Land with Radioactive Waste?* 13 **Pub. Citizen** 19 (1992).

69 Brad Hoaglun, Invited review of The Dilemma of Siting a Nuclear Waste

Could participation have led to uninformed consent?

Even if the Negotiator and tribal councils promoted open, informed decision making, the possibility of unwarranted consent still remains. In particular, some argue that a startling condition of poverty leads to distorted decision making; poor communities can't make an informed judgment as to the appropriateness of hosting an MRS facility, even if they know what the risks are. Ellen Long Turkey Wright of the Lower Brule Sioux Tribe (and co-founder of People for Mother Earth Coalition) contended that the study grants "trap" a tribe into continuing with the process. Once they have taken that money, she worries, it will be hard for the tribes to tell the DOE to take a hike. Wright stated, "Are we supposed to believe that the poorest communities in the country are equipped to handle nuclear wastes?"[70]

This suggests that poverty leads to uninformed decision making (i.e., clouded judgment or decisions disconnected from one's underlying values). However, it is also possible that the opposite might occur. Namely, economic necessity might cause communities to take a more careful look at the actual risks associated with a facility such as an MRS facility, suggesting that the disparity between the decision of the volunteer community and the opinion of outsiders might reflect a lack of information on the part of the outsiders. The Mescalero Apaches, for one, vigorously defended the siting process and argued that the critics, typically Anglo-American environmentalists, were paternalistic in trying to "protect" Native Americans against their own choices and resented being portrayed as "dupes exploited by powerful outsiders."[71] They point to the tribe's rich history, including legendary warriors like Geronimo and Cochise, and the tribe's victories over Spanish, Mexican, Texan, and Confederate armies, and argue that a tribe with such a tradition will not be dictated to by outsiders, whether environmentalists or utilities.[72] Indeed, their response to the environmental justice

Repository communicated to Howard Kunreuther, (Washington, DC: Office of the Nuclear Waste Negotiator, Feb. 18, 1994).

70 Margaret L. Knox, *Their Mother's Keepers*, 78 **Sierra**, 82 (Mar./Apr. 1993).

71 Miller Hudson, Public Information Director for the Mescaleros, regarded these critics as particularly disingenuous: "There's... this sort of romantic notion, that Indians should be captured in a time about 1890, they should stay in those picturesque teepees and be tourist attractions rather than joining the 20th century along with everybody else." A Conversation With Miller Hudson, **The Nuclear Rev.**, Aug. 1995, at 26.

argument is that any questioning of the tribe's decisions by outsiders is itself racist.[73] This perspective raises basic questions about whether a siting outcome can ever be "environmentally unjust" when it comes from an informed choice on the part of the affected minority group.

Did the MRS siting process "target" Native American tribes?

Prima facie, the Negotiator's siting process appears to have been remarkably progressive in achieving procedural equity. As described above, Leroy designed a process in which communities were free to enter and exit the process at will. In addition, study grants were available for local officials and residents to become familiar with the risks and benefits of an MRS facility. Moreover, Leroy attempted to ensure that any decision to "accept" an MRS proposal would reflect the will of the host community; the Negotiator worked only with elected officials (i.e., the community's legitimate representatives) and these officials were encouraged to gauge local sentiment through referenda.

Although Leroy took considerable care in promoting procedural equity, critics argued that the siting process was unfair in its application to Native American tribes. A major criticism involved the special attention that Leroy paid to tribes while seeking volunteers.[74] To some, it appeared that tribes were not simply invited into the process, but actually targeted for the facility. Such a view could be supported either by a general distrust of the federal government's behavior toward Native Americans (as observed among the Sac and Fox opponents of the MRS facility) or by a more strategic analysis of the siting dilemma, namely, tribes offered the Negotiator his only hope for success, since every governor would be pressured to veto a state or county's interest in hosting an MRS facility.

The Negotiator's office made efforts to counter the perception that Natives were being targeted. When the town of Riverton, Wyoming, applied for a study grant, the Negotiator's office sanctioned about $1 million for the town to hold a series of public meetings to demonstrate

---

72 *See* Michael Satchell, Dances With Nuclear Waste, **U.S. News & World Rep.**, Jan. 8, 1996, at 29.

73 *See id., A Conversation with Miller Hudson*, **The Nuclear Rev.**, Aug 1995, at 20.

74 *See* Ana Radelat, *Trading Away Their Future: Will the Mescalero Apaches Share Their Land with Radioactive Waste?* 13 **Pub. Citizen** 16 (1992).

the feasibility of an MRS facility. The Mescalero Apache applicants were not given such resources to sell the tribe. A Mescalero Apache representative was told that the funds allocated to Riverton were to increase the possibility of a non-Native American community's being the site and to avoid charges of environmental racism.[75]

The charge of "targeting" suggests inequity only if the Negotiator were to pressure candidate communities in ways that belied their underlying interests. In particular, targeting would certainly be unethical if relevant MRS-related information were withheld from tribal representatives. However, the Negotiator's study grants allowed tribes to hire independent consultants with considerable expertise about the operation and risks of an MRS facility. The Mescalero Apaches, for example, gained substantial technical knowledge about the management of nuclear wastes.

Most importantly, however, there is a question about whether the process used by the Negotiator was fundamentally unfair. The Negotiator took pains to point out that participants could withdraw from the MRS siting process at any time. The process also provided a veto to state governors over county decisions to participate in the MRS siting process. Given the high level of concern over nuclear waste risks across the U.S.,[76] it can be assumed that governors would veto a nuclear waste facility in their states rather than deal with the political fallout. Therefore, while the governor veto provision can be commended as fair, this feature also possibly ensured that the only participants in the MRS siting process would be Native American tribes, as tribal sovereignty ensured that they were the only parties not subject to governors' vetoes. If it could have been reasonably predicted that this would be the outcome, then this seemingly fair voluntary procedure could be argued to be a ruse designed to involve Native American communities in the MRS siting process.

Did the process deal adequately with cultural perspectives and impacts on cultural values?

Another set of challenges that the MRS siting process in Native America presents concerns the issue of cultural perspectives and impacts

75 *See A Conversation with Miller Hudson*, **The Nuclear Rev.**, Aug. 1995, at 20.

76 *See* **Public Reactions to Nuclear Waste**, (Riley E. Dunlap et al., eds.) (1993).

on cultural values. It is certainly not clear that such culture-related aspects have been studied in any significant manner, especially not by the Nuclear Waste Negotiator. For example, for many Native Americans, any degradation to tribal lands is a threat because life is viewed holistically. Whereas mainstream American thinking allows for the sacrifice of a portion of the environment for economic purposes, Native Americans often reject such trade-offs on the grounds that all environmental resources are equally essential.[77] This cultural perspective runs counter to the economic rationale underlying voluntary siting — that tradeoffs are possible between risks and benefits of various land uses.

However, the experiences and beliefs reported here apply differently across Native American tribes. For example, the leaders of the Mescalero Apache clearly believed that whatever risks were associated with nuclear waste could be safely and morally contained using MRS technology. In contrast, members of the Sac and Fox Nation viewed the MRS facility as threatening the health of future generations (e.g., through mutations). Further, the risks applied not just to individuals, but also to the tribe as an ongoing cultural entity; because of the relatively small number of tribal members, radiation contamination from the facility could potentially result in the annihilation of the entire tribe.

Clearly, concerns about the MRS facility will vary substantially among Native Americans, both among tribes and within any given tribe and will be affected by traditional cultural perspectives. It is not apparent that the Negotiator and the concept of voluntary siting could integrate these alternative cultural perspectives without raising conflicts which would potentially doom the MRS siting process.

Did the MRS process legitimize entrepreneurial management of a risky facility?

The voluntary siting process for the MRS facility may have actually raised new questions in the context of nuclear waste management. While achieving a site is a central goal of siting processes generally and of the voluntary approach in particular, it is far from clear that any

77 *See* Richard W. Stoffle & Michael J. Evans, *Holistic Conservation and Cultural Triage: American Indian Perspectives on Cultural Resources*, 49 **Hum. Org.** 91 (1990).

volunteer site would necessarily be appropriate to handle nuclear wastes. The risks to health, safety, and the environment posed by nuclear wastes are so enormous that it is not readily apparent that such wastes should be managed by any other than an exceptionally technically qualified entity, for example, the federal government. However, the MRS process legitimized the notion that nuclear wastes could be managed by any party that volunteers to do so, thus opening the door for private transactions between tribes and utility companies which can be potentially problematic. Such entrepreneurial management of nuclear wastes is a potential reality, as can be seen from the Mescalero Apache's and Skull Valley Goshute's negotiations with the Northern States Power utility company to host part of the utility's nuclear wastes.

But such transactions, while voluntary, do not consider adverse impacts on neighboring communities. In tribal cases, there is no need to consider the views of neighboring communities as they do not have jurisdiction over what happens on tribal lands. However, this is problematic in cases such as those involving Oklahoma tribes because, rather than being a contiguous reservation, tribal land is often a patchwork interspersed with non-Native owned land. In New Mexico, non-Mescalero residents (particularly residents of the town of Ruidoso) argue that an MRS facility on the Mescalero Apache reservation would negatively affect their health and economic livelihood. Leroy's MRS siting process did not require consent from these affected third parties, although state officials do retain some jurisdiction over the transportation of wastes within New Mexico.[78]

Another problem associated with the entrepreneurial and voluntary management of nuclear wastes centers on the issue of liability. In their negotiations with Northern States Power, the Mescalero Apache were careful to insist that the title to the wastes would remain with the utility. This ensures that any liabilities arising from nuclear waste related damages would be borne by the utility to some extent and then by the federal government, in accordance with the Price-Anderson Act which limits the liability of nuclear energy generators. The absence of

[78] Although the Nuclear Regulatory Commission has the authority to regulate the proposed facility, state officials are likely to attempt to impose restrictions on the storage and transportation of spent fuel within the state. It is currently unclear whether a state has the legal authority or effective ability to prevent the construction of an MRS facility on a reservation.

liability might adversely affect the waste-managing tribe's incentives to take appropriate care of nuclear wastes.

The market-like transactions involved in the MRS process led Sac and Fox opponents to believe that ultimately the federal government would transfer liability, raising the possibility that they could be bankrupted in case of an accident. They also feared that the federal government would fail to ensure that the facility would adhere to the stringent safety standards established by agencies, such as the Nuclear Regulatory Commission and the Department of Energy, abdicating such responsibilities to the volunteer host. Opponents justified their fears on the track record of federal "caretaking" of Native American interests. In the end, Leroy lost much credibility among the Sac and Fox, for example, simply because he was a representative of the federal government. In fact, some respondents attributed nefarious intentions to his actions; they viewed his Office as a way for the federal government to put a hazardous facility to tribal lands, while claiming that the decision had been made "legitimately,"[79] through a voluntary, market-like transaction.

Conclusion

While many have criticized David Leroy's voluntary approach to siting an MRS facility, on the grounds of both equity and effectiveness, others have applauded his process as a progressive alternative to the heavy-handed siting that has come to characterize the federal government's nuclear waste program.[80] When compared to Congress's unilateral decision in 1987 to designate Yucca Mountain as the presumptive site for an underground repository, Leroy's principle of giving communities free rein to enter into and exit out of the siting process appears highly democratic. Still, legitimate concerns persist as to whether "allowing" tribes to volunteer for a nuclear-waste facility is the fairest approach, given the long-standing inequities in wealth, particularly when those inequities are (at least in part) the consequence of treaty abrogations on the part of the federal government.

---

79 Among the Mescalero, this mistrust was overridden by belief that the tribe could control the negotiations with the federal government.

80 *See* Doug Easterling & Howard Kunreuther, **The Dilemma of Siting a High-Level Nuclear Waste Repository** *(1995); Conversation*, *supra* note 75, at 20.

Even if one concludes that the nuclear waste Negotiator offered an equitable approach to siting an MRS facility, it is unclear whether it offered a "solution" in the sense of finding viable host communities. By the time the Negotiator's term expired in 1994, the only jurisdictions still considering a federal MRS facility were the Skull Valley Goshute Tribe, the Fort McDermitt Paiute-Shoshone Tribe, and the Tonkawa Tribe. It is unclear whether any of these three tribes would have progressed to the point of negotiating a siting agreement, and if so, whether state or federal officials would have allowed the agreement to become effective.[81]

The fact that so many tribes (like their non-Native American counterparts) dropped out of the siting process suggests that the potential for benefits could not overcome the variety of perceived risks associated with hosting an MRS facility. The facility appeared to involve highly uncertain consequences affecting the health of tribal members, the environment, and the tribe's economy, sovereignty and survivability. Furthermore, these threats were not offset by any countervailing impetus to build an MRS facility on tribal lands; monetary benefits did not appear able to compensate for the potential damage that might occur to irreplaceable environmental, human, and cultural resources. And just as importantly, no tribe felt an imperative to solve the nuclear-waste dilemma (i.e., to build an MRS facility for intrinsic reasons).

Yet, the most fundamental obstacle to finding a voluntary site for an MRS facility may really be a lack of interest in problem solving. The vast majority of Americans do not feel a personal responsibility toward solving the high - level waste problem and see no compelling reason to host an MRS facility. Particularly, Native American tribes have very little stake in solving the nuclear-waste problem, because reactors are owned and operated by public and private utilities. The fundamental

81 Although Leroy was clearly motivated by a desire to build an MRS facility, this was not his highest priority. Throughout his tenure, Leroy contended that he was more committed to maintaining a credible and open process than he was to coming back to Congress with a volunteer state or tribe. He referred to himself as "the guardian of the process, rather than the guarantor of the result." David H. Leroy, **Moving Beyond the Headlines: Negotiated Nuclear Facility Siting in the 1990's**, speech to the 2d Ann. Int'l High Level Radioactive Waste Management Conference (Las Vegas, NV, Apr. 30, 1991).

equity issue is whether society's interests are best served by a siting policy that transfers the burden of solving the nuclear waste problem away from waste generators and onto poor communities, even if those communities achieve greater "wealth" in the process.

Out of all the Native American reactions to the MRS siting proposal, responses such as those of the Mescalero Apache raise the most interesting points about voluntary siting and its efficacy. On its face, this experience shows that voluntary siting efforts can be effective and it shows what features make such efforts successful. The most significant insights from the Mescalero Apache experience are the questions it raises about our understanding of distributional equity and environmental justice. Who decides what is distributionally inequitable and environmentally unjust remains an open question, as does the question of whether voluntary siting is truly voluntary when considered in the context of the imperatives of Native American tribes.