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## NORTH AMERICAN WATER OFFICE

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October 15, 2001

Secretary of Energy Spencer Abraham  
C/O Ms. Carol Hanlon  
S & ER Products Manager  
U.S. Department of Energy  
Yucca Mountain Site Characterization Office  
P.O. Box 30307 M/S 025  
North Las Vegas, Nevada 89036-0707

RE: Comments of the North American Water Office Regarding  
"Yucca Mountain Science & Engineering Report," "Yucca Mountain  
Preliminary Site Suitability Evaluation," and Other Pertinent Information  
Relative to the Pending Site Suitability/Site Recommendation Decision of  
Secretary of Energy Spencer Abraham

Dear Secretary Abraham:

By way of introduction, the North American Water Office (NAWO) is a 501 (c) 3 organization chartered in 1982 to educate people about solutions to problems caused by society's wastes. NAWO programs have a particular focus on reducing electric utility wastes and cleaning up the mess they leave behind. Electric utility waste streams threaten to dislodge society from its ecological foundation. By virtue of peoples' continuous electric consumption, virtually everybody is part of the problem and therefore potentially also part of the solution. Environmental problems caused by electric utility wastes are particularly onerous because many of their more immediate adverse impacts fall disproportionately on Indigenous People, People of Color, and the subsistence poor.

NAWO is project sponsor of the Prairie Island Coalition, which formed in 1990 to oppose dry cask storage of irradiated fuel at the Prairie Island Nuclear Power Plant, owned and operated, at the time, by Northern States Power Company (NSP). The Prairie Island Coalition consists of approximately 30 safe energy, environmental, Indigenous, religious, social justice and community-based organizations, and maintains a mailing list with over 5,500 addresses.

[www.nawo.org](http://www.nawo.org) email : [gwillc@mtn.org](mailto:gwillc@mtn.org)

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George Crocker, Executive Director.



While NSP sought permission beginning in 1988 for 48 TN-40 storage casks, due to Prairie Island Coalition intervention, in 1994 the Minnesota Legislature ultimately only authorized 17. This storage capacity limit was imposed upon Prairie Island nuclear operations because the Minnesota Public Utilities Commission and then the state legislature recognized the utterly intractable nature of high-level nuclear waste management problems. Minnesota authorities recognized that Minnesota electric consumers are better served by a program that phases out nuclear power and promotes modern, safer, cleaner, more reliable and cheaper distributed energy capacity, rather than continuing with an open-ended commitment to obsolete nuclear technologies of the past century.

Our objective is to accomplish this energy transition. Our collective survival appears to depend, in significant part, on our collective ability to stop wasteful consumption of electricity from a brittle, extremely vulnerable central-station infrastructure that threatens catastrophe in a myriad of ways. Coal versus nuclear is a false dichotomy. Coal and nuclear facilities are all part of the same big and extremely destructive machine. We must instead base electrical energy management on the efficient use of electricity from distributed generation capacity utilizing, as much as possible, locally available renewable energy resources. In addition to reversing a number of disastrous environmental trends, accomplishing this objective will provide local economic development and a solid economic foundation for social justice.

As noted, since 1988, NAWO has worked extensively on problems associated with storing irradiated fuel in dry casks at the Prairie Island Nuclear Power Plant near Red Wing, Minnesota. We are very familiar with federal irradiated fuel management plans and proposals, including the former Monitored Retrievable Storage program in which we administered the Phase I \$100,000 grant for the Prairie Island Mdewakanton Dakota Tribal Council. We have followed developments at Yucca Mountain closely during the past 13 years. Our familiarity with the Yucca Mountain proposal includes a 1993 site visit in conjunction with the National Council of American Indians, review of pertinent documents, participation in numerous public forums and educational venues regarding nuclear power and nuclear waste, and previous comments at earlier stages of the site characterization process.

We are familiar with the federal legislation that specified Yucca Mountain as the nation's only proposed high-level nuclear waste repository, and we are knowledgeable regarding rule-making processes that established repository criteria. We are also knowledgeable regarding protocol and results of many of the scientific analyses conducted at the proposed repository site. Based on our familiarity and knowledge of the Yucca Mountain situation, NAWO supports in their entirety, the comments and conclusions of the Nevada Nuclear Projects Agency, including its contract geologist, Steve Frishman. NAWO supports the comments and conclusions of the Nevada Nuclear Waste Task Force, and the Nevada citizen organizations and many individuals who have taken it upon themselves to defend their communities from the radioactive abuse the Department of Energy seems intent on inflicting upon them.

For our part, be advised that Nuclear Regulatory Commission and Department of Energy efforts to get a Yucca Mountain high-level nuclear waste dump at any cost are not fooling anyone who is paying attention. Posterity will have plenty of time to ponder and judge your history of collusion with the nuclear industry and your pseudo-scientific charades. Your disregard for the sovereign status of the people indigenous to Western Nevada, and the arrogance with which you so blithely attempt to pervert fundamental principles of a fair, democratic and open society will be studied as examples of vested interests running amok. In your arrogance, you ignore the 1863 Treaty of Ruby Valley between the United States Government and the Western Shoshone Nation. In your ignorance, you desecrate sacred land of the Shoshone People of Newe Segobia. It would seem that an important principle for establishing a waste management site that must maintain its integrity for geological time would be to ensure that political unrest and social strife are not dominant characteristics of the site selection process. Yet such strife and unrest are exactly what the Department of Energy and other federal agencies have managed to accomplish in this instance.

To begin the repository site selection process with, for political reasons, but a single site for site characterization would seem to be a rather course and crude beginning to a process that should demand the utmost of integrity and sophistication. Then, when you could not meet statutory requirements to isolate radioactive materials with natural barriers, you simply changed the rules to credit man-made barriers. When natural and man-made barriers combined did not provide adequate isolation even according to your own warped modeling exercises, you relaxed the standard. When relaxed standards still could not be met, you expanded the buffer zone. With clear knowledge that the time of maximum exposure will extend for many tens and hundreds of thousands of years into the future, you arbitrarily cut off the point of your regulatory concern at 10,000 years.

An active tectonic zone such as Yucca Mountain is not a good place for a high-level nuclear waste repository for reasons that are obvious to people with common sense who are not motivated by vested interests. Likewise, an area that has been volcanically active within the near-term of geologic time such as Yucca Mountain is not a good place for a high-level nuclear waste repository. Up-welling super-heated pressurized ground water driven through the repository site by magma is possible at Yucca Mountain. It has happened before at Yucca Mountain. Such geological action would be just about the perfect distribution mechanism for scattering radioactive material throughout North America. Water percolating through the volcanic tuft of Yucca Mountain becomes extremely corrosive. Your "A-22" alloy notwithstanding, the probability is very high that the water will dissolve any containment you can devise within the very near-term of a storage period that must extend for at least 250,000 years to be protective of biological activity. If you put irradiated fuel in Yucca Mountain, it is virtually certain irradiated fuel will be migrating through the biosphere for hundreds of thousands of years, killing and mutating all along the way.

You should recognize by now that a primary consequence of opening and operating a nuclear waste repository will be to ensure that the security of the American people is severely and increasingly compromised. The primary threat of operating a

repository in our time *is in addition* to the utterly unacceptable threat posed by the continuous shipment of irradiated fuel over the nation's roads and rails to the repository site for the next 40 or more years. Outside of Nevada, the primary threat created in our time by operating a repository is that many reactors presently operating will continue operating when they would and should otherwise shut down.

Each of the 104 NRC licensed reactors, at each of the 68 reactor sites, along with on-site storage facilities at each site is well positioned to become a prime terrorist target. After such an event, there will be no recourse other than an attempt to evacuate millions of people and the abandonment of huge areas. But the event that results in evacuation and abandonment could also be caused by the failure of reactor components, such as steam generator tube ruptures, vessel head penetration nozzle, circumferential cracking, or any number of other possibilities, including human error. The potential for catastrophic component failure is virtually certain unless reactors are shut down first, a fact widely recognized within the nuclear industry and its regulators, but that is not discussed with the public. Attempting to ship nuclear waste out-of-sight out-of-mind to a repository will ensure that reactors continue operating until nuclear catastrophe strikes. Then, the radioactive nightmare will be compounded by chaos in the electric utility industry. And you will have done it to yourself and the rest of your fellow citizens.

But you already know these things. Or you should. They just do not matter to you. These things are unimportant compared to your desire to get a dump, any dump, for the commercial nuclear industry, so that nuclear power plants can continue operating and accruing profits and preserving privilege for another day, another month, or one more year. It is the nature of privileged nuclear vested interests to attempt to protect that privilege, and to do so, you believe you must put high-level nuclear waste in Yucca Mountain. But you are not fooling attentive people concerned about public interests. It will be curious to see if you are capable of overcoming your nature in time to prevent catastrophe, or if we are able to overcome your nature for you.

Thank you for your time and consideration.

Sincerely



George Crocker  
Executive Director