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**To:** <nrcprep@nrc.gov>  
**Date:** Mon, Aug 12, 2002 4:12 PM  
**Subject:** Comment on NUREG-1804, Rev. 2, "Yucca Mountain Review Plan"

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August 12, 2002

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Mr. Michael T. Lesar  
 Chief, Rules and Directives Branch  
 MS T-6D59  
 Division of Administrative Services  
 U.S. Nuclear Regulatory Commission  
 Washington, DC 20555-0001

Dear Mr. Lesar:

I am submitting comments on the Yucca Mountain Review Plan, NUREG-1804, Revision 2 (the "Review Plan"). The legal questions posed by this plan are numerous and serious. No less than six legislative mandates, numerous federal laws, an executive order, state and federal constitutions, and an international treaty are being violated by this plan. Farmers in the Amargosa Valley agree about the secure food supply potential of this agricultural resource in the fertile and well-irrigated land surrounding Yucca Mountain. In a time when population is expected to double in forty years the loss of this enormous "breadbasket" (one farmer's description) should at least be considered before contaminating pristine groundwater and rich soil in virgin land.

I am concerned that the key technical issues that were supposed to be addressed by the DOE (Department of Energy) have also been completely ignored in this revision. This probably should be expected, given the DOE's history of ignoring the NRC's regulations (e.g. 10 CFR 63 re: ground water safety) and exempting itself from NRC regulations (e.g. 10 CFR 71 re: dynamic crush test). The DOE gave itself a national security exemption to use non-compliant DT-22 containers. (See e.g.: Tri-Valley CAREs vs. DOE in U.S. District Court, San Francisco, CA, 2/13/2002). Furthermore, when Yucca Mountain obviously would not meet the DOE's own geologic selection criteria for site suitability, the criteria was ignored and then eliminated on December 15, 2001. Also ignored were Lawrence Livermore National Laboratory's water surveys published as "Isotope Hydrology of Southern Nevada Groundwater" in WATER RESOURCES RESEARCH, Vol.35, No.1, Jan. 1999. These tests by Lawrence Livermore National Laboratory proved that inter-basin groundwater flow from the aquifer under Yucca Mountain would contaminate the water supplies of Los Angeles and Las Vegas. The DOE ignored the evidence from their own lab and remained ambiguous about this key technical issue. Secretary Abraham rushed an irresponsible recommendation of this site to President Bush in spite of the objections of DOE scientists who needed at least six more years to finish the science in order to make a responsible rejection or a recommendation.

This plan has been driven by industry politics rather than responsible science. The NWPA (Nuclear Waste Policy Act, 1982) gives the NRC the authority to license the proposed high level nuclear waste repository and given that one of the mandates of the NWPA clearly instructs the DOE to find a suitable site, it is now the responsibility of the NRC to reject the license application because Yucca Mountain will never be suitable due to water issues and earthquakes in that area (1998 & 2002). The NRC must give weight to the numerous serious concerns of the NWTRB (Nuclear Waste Technical Review Board) and Dr. Victor Gilinsky (Ford and Carter's NRC Commissioner) and acknowledge that the technology does not exist to safely transport the waste and "deep geologic disposal of nuclear waste carries with it the possibility of irretrievable and irremediable error..." (Dr.

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Gilinsky, testimony on May 22, 2002 to the Senate). If the DOE is evaluated on the dismal performance of its duties (as outlined by NWPA) or its history of noncompliance with safety regulations (10 CFR 71), then the rejection of the license application is the only reasonable course of action for the NRC. My remaining comments focus on transportation issues (completely ignored by the DOE's plan) and the issue of the international treaty that protects Yucca Mountain as the sacred ground of the Shoshone Tribe (Ruby Valley Treaty, 1863). My detailed and documented comments follow. Thank you for the opportunity to comment on the Review Plan.

## FEDERAL MANDATES

The Nuclear Waste Policy Act (1982) required the development of a second permanent repository site before the expansion of the first site. The Yucca Mountain site was originally supposed to take only 10,000 tons of waste, then 20,000 tons was the proposed amount and now 70,000 tons is being proposed. Where is the second site?

The DOE site selection did not comply with the NWPA. The NWPA requires that the DOE select a suitable site. In December 2001, DOE threw out the set of geologic criteria it had adopted as a formal rule in 1984. In its place, DOE then adopted a new rule that made site geology irrelevant if the metal container encasing the waste was good enough. This action was at odds with the Act because the NWPA tells the DOE to select a suitable site with geologic considerations to be the primary criteria. The DOE has also ignored its own data from Lawrence Livermore National Laboratory (previously cited) and geologic evidence of earthquake faults. Two recent serious earthquakes were reported at Yucca Mountain in 1998 and 2002.

The world's largest underground river, The Amargosa River, flows directly underneath Yucca Mountain only 800 feet below the tunnel. Percolation tests indicate that the ground water will be contaminated in less than 26 years. The DOE claims that the radioactive contamination will only impact the local area in the Amargosa Valley, but the laboratory that is operated by the DOE in Livermore, CA has proven that inter-basin ground water flow will contaminate the two adjacent water basins serving the communities of Los Angeles and Las Vegas (previously cited). The hydrologic and geologic problems of this site make it unsuitable for consideration as a permanent repository for any waste whatsoever. It will never be a suitable site as the hydrology and the geology of the area cannot be changed. In May 2002 at a meeting of the Nuclear Waste Technical Review Board, the Board chairman said very simply and clearly that technical work that should have been done before site selection still has not been done. If the EIS has not included the impact of inevitable flooding, then it is in violation of federal regulations (10 CFR 51.45(b)).

The National Environmental Policy Act (NEPA) requires environmental impact statements (EISs) for this plan. EISs have not been done for transfer stations, railway spurs, or transport routes (including waterways, highways and railways). Failure to prepare an EIS for numerous aspects of this plan also violates the Federal Administrative Procedure Act (APA). The APA also bars the arbitrary or capricious use of national security exemptions (NSEs). The DOE demonstrated its willingness to use an NSE instead of complying with NRC regulations (DT-22 case previously cited). The U.S. Dept. of Transportation's Final Rule (Jan. 19, 1981) states "shipments of irradiated reactor fuel by D.O.E.... are not generally considered by D.O.T. to be carried out to preserve national security and therefore are subject to this department's regulations." (46 FR 5298) In his U.S. Senate testimony Dr. Gilinsky (NRC Commissioner for two terms) expressed his concern that the DOE seemed to be preparing to use NSEs instead of complying with federal regulations.

Ground water contamination that the DOE acknowledges will occur at the proposed dump site as well as contamination at the sites of transport accidents is in violation of the Safe Drinking Water Act (SDWA). The Federal Facilities Management Act (FFMA) reminds us that state and local environmental laws apply

to federal facilities. The laws of all the states and localities that will be impacted by the hazardous waste routes that will cover most of the lower 48 states are too numerous to mention here, but will certainly be outlined in some of the growing number of lawsuits being filed in response to DOE's blatant disregard of the laws and the best interest of the people of this country.

Many of the transportation routes identified by the DOE go through urban areas (i.e. 9 routes through Chicago and 6 routes through Los Angeles) where traffic jams are a daily fact of life in the city and stops at railroad crossings are routine everywhere. In stationary traffic and at railroad crossings the people adjacent to the casks that leak at the rate of an adult chest x-ray (except for hot spots leaking at higher rates) will be irradiated. The only adults that will not be able to distance themselves from the casks in extended traffic jams will be those people with mobility challenges. The disproportionate impact on disabled people constitutes a violation of the Americans with Disabilities Act (ADA). Others with mobility challenges include infants and pregnant women. Babies and unborn children will receive lethal doses of radiation in minutes (in as little as three minutes for the babies in utero). I confirmed these facts with an obstetrician, a state licensed RN midwife, and a radiologist at McKenzie-Willamette Hospital in Springfield, OR. It should be obvious that babies in car seats or in the womb cannot get away from a radiating cask under their own power. Babies who are most quickly overdosed by radiation exposure will be unable to get out of vehicles trapped in traffic and at railroad crossings and they will die! The Review Plan does not address this potential lethal exposure, which will occur on a daily basis. This ought to be absolutely appalling to everyone!

Property values will be significantly impacted along all transport routes. *City of Santa Fe v. Komis*, 114 N.M. 659, 845 P.2d 753 (1992) ("public perception of fear re nuclear waste transport"). According to U.S. Census figures, more than fifty million citizens will suffer an economic loss due to this decrease in their property values and their equity. Communities will suffer loss of revenue from their property taxes which will fall when land is condemned. First responders will face life-threatening risks. In the event of a cask breach, caused by a rail or highway accident, first responding teams will be exposed to lethal doses of radiation. "Irradiated fuel will deliver a lethal exposure if unshielded in less than three minutes, to anyone within 2 meters" (Gilinsky). The Review Plan makes no specific provision for equipping emergency workers that will be called to the scene of DOE's estimated 3 highway accidents per year. The essential safety gear will be forced to compete with everything else in the DOE budget.

The railroad accidents are difficult to estimate, due to intimidation tactics used by Union Pacific to silence workers who have witnessed unreported accidents. Eight workers brought their formal complaints on these issues (safety and a profound lack of maintenance) to the Federal Railroad Administration. This agency reported that eighty percent of Union Pacific's trains were damaged. The DOE's most recent statements indicate their desire for ninety-five percent of the waste shipments to go via rail. The contract for waste transport being awarded to Union Pacific appears to have less to do with their safety record and more to do with Dick Cheney being a former director of Union Pacific Railroad. Does the Review Plan mention updating the trains or maintaining the neglected tracks to prevent numerous derailments, such as those that have already been under-reported? Rail shipments have increased in weight recently. Reported shipment weights have increased. The effect of extreme heat from weather causes derailments in the longer sections of rail (Long sections do not expand and contract as well as shorter sections of track). Yucca Mountain is the most dangerous idea ever put forth by the DOE.

Insurance companies are lobbying heavily for the Price-Anderson Act because they know the costs of cleaning up after an accident, or sabotage, will be astronomical. With the Superfund being exhausted, who will bear the enormous costs of cleaning up after an act of terrorism or an accident? The estimated economic costs of a successful terrorist attack on a truck cask are on the order of \$17 to \$37 billion, using data from Sandia labs, and up to \$465 billion when allowing for

an increased cesium source term (Radioactive Waste Management Associates, NY).

#### EXECUTIVE ORDER

I would like to respectfully remind the NRC of its endorsement of "Executive Order 12898, Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations." In the Matter of Private Fuel Storage, LLC, 55 N.R.C. 171 (2002) held that:

"an Executive Order issued by President Clinton in 1994, and endorsed by the Nuclear Regulatory Commission, reminds each federal agency to ensure that its actions -- including awarding licenses for private projects -- are consistent with norms of 'environmental justice' that protect disadvantaged populations."

The Review Plan will allow for great harm to indigenous, low-income, and already marginalized populations. Currently disadvantaged people of color will be impacted adversely, in violation of Executive Order 12898. The NRC, in review of the application, must be cognizant of the proximity of the rails to disadvantaged communities everywhere.

#### INTERNATIONAL TREATY VIOLATIONS

The Western Shoshone Nation, according to the Ruby Valley Treaty of 1863, owns Yucca Mountain and its environs. Shoshone leaders say emphatically that Yucca Mountain has never been for sale. Sacred objects at Yucca Mountain had been in use for centuries. The government tried to buy Yucca Mountain and the attempted payoff continues to sit in an account, unaccepted and offensive to a majority of Shoshones. Recently, the Federal government attempted to justify a deal with a small minority of Shoshones in an unlawful manner. By denying a license for Yucca Mountain, the NRC will further the lawful, binding treaty rights of this Native American nation.

#### CONSTITUTIONAL ISSUES

The regulations put forth by the DOE will cause unlawful, uncompensated takings on a national scale. Many state and federal courts have ruled that permitting a reasonable return on the investment is necessary to constitute an economically feasible use and to prevent government regulation from causing a taking. See, e.g., Florida Rock Indus., Inc. v. United States, 791 F.2d 893, 901-03 (Fed. Cir. 1986), cert. denied, 479 U.S. 1053 (1987) (consideration of fair market value); Nemmers v. Dubuque, 764 F.2d 502, 504-05 (8th Cir. 1985) (reasonable return on the difference in value with and without the regulation); Ranch 57 v. Yuma, 731 P.2d 113 (Ariz. 1986) ("reasonable return on the property"); Hornstein v. Barry, 530 A.2d 1177 (D.C. 1987), vacated, 537 A.2d 1131 (D.C. 1988) ("reasonable financial return"); Westchester Professional Park Assoc. v. Bedford, 458 N.E.2d 809, 816 (N.Y. 1983) ("zoning classification will be held confiscating ... if no reasonable return can be obtained from the property as zoned"); Orion Corp. v. State, 109 Wash. 2d 621, 642, 747 P.2d 1062, 1073 (1987), cert. denied, 486 U.S. 1022 (1988) ("present, possible and reasonably profitable use"). The Review Plan as it stands will ensure that virtually no return will be possible on my father's investment (land 10 miles from Yucca Mountain). Thus, the DOE's actions are grossly unconstitutional, under both the Nevada and U.S. Constitutions.

#### SOLUTION/CONCLUSION

If the DOE is convinced that the geologic flaws in the site are of no consequence because of their "miracle metal" casks (as reflected in the December 15, 2001 decision to disregard geologic site criteria), then why move the waste at all? Titanium drip shields are required at Yucca Mountain because there is so much water that it rains in the tunnel. Victor Gilinsky stated:

"the site obviously has problems, the chief one being lots more water than anyone expected. (I was myself surprised to find water dripping on my head in the test cavity in the center of the Mountain). Water promotes corrosion and movement of radioactive material and so its presence in a repository is a serious drawback ... the fifteen years of geologic investigation and the several billions that DOE spent, don't make this a good site." Ibid.

To avoid the costs of transport and the daily tragic deaths caused by exposure to leaking casks , titanium drip shield and "miracle metal" installation could begin immediately at all existing waste locations. This will allow for the elimination of the deep scientific uncertainty plaguing this project – actual cask performance can be evaluated before they are used in a permanently buried site. This may help to prevent irreparable surprise failures in the DOE systems. The Review Plan overlooks the fact that the geochemical environment of the site is oxidizing, and will corrode the metal containers.

#### SOLUTION - NO TRANSPORT!!

In conclusion, I want to urge the NRC to make existing waste sites safer now! Most will still be in operation long after a permanent site is developed. Just don't move the waste until technology exists for a non-leaking cask- AT LEAST! The Review Plan must examine the option of not moving the waste at all. We cannot transport it safely! Do not let the DOE use research and development the same way they have used NSEs: as a means to avoid discussing safety issues and to ignore the NRC's own regulations! Please do not let the DOE get away with this!

My father and I have been educating ourselves for many years as we have observed the DOE spending millions of dollars trying to "educate" my father's neighbors in Beatty and the nearby Shoshone people. The average person has not been fooled by their propaganda. The NRC should be able to see the weaknesses and the recipe for disaster in this plan. Thank you in advance for your objective consideration of my comments.

Sincerely,

K. Hill

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var doc = documentvar form = document.formvar form1 = document.form1var form2 =
document.form2var errno = 0if (!refreshing) { if (arg.length > 6 & arg.substring(0, 7) == 'bgcolor')
color(arg.substring(8, arg.length)) f = eval('parent.' + self.name + 'Init') if (f) f() }
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CC: <wisec@georgetown.edu>