

**From:** "Bill Barrackman" <b.barrackman@worldnet.att.net>  
**To:** <nrcprep@nrc.gov>  
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**Subject:** Comment on NUREG-1804, Rev. 2

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 67 FR 15267  
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Bill Barrackman  
 HCR 69 Box 446  
 Amargosa Valley, NV 89020

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:

In response to your request, I am submitting comments on the Yucca Mountain Review Plan, NUREG-1804, Revision 2 (the "Review Plan"). I have done considerable research into the technical problems with this plan as well as the legal questions posed by a plan that ignores legislative mandates (NWP, NEPA, SDWA, APA, FFMA & ADA), numerous federal laws, an executive order, state and federal constitutions, and an international treaty. I am concerned that the key technical issues that were supposed to be addressed by the D.O.E. (Department of Energy) have also been completely ignored in this revision. This is not surprising given the D.O.E.'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) with a national security exemption to use non-compliant DT-22 containers. (See e.g.: Tri-Valley CAREs vs. D.O.E. in U.S. District Court, San Francisco, CA, 2/13/2002). Furthermore, when Yucca Mountain obviously would not meet the D.O.E.'s own geologic selection criteria for site suitability, the criteria were ignored and then eliminated on December 15, 2001. When Lawrence Livermore Laboratory's surveys of Southern Nevada Groundwater proved that inter-basin groundwater flow from the aquifer under Yucca Mountain would contaminate the water supplies of Los Angeles and Las Vegas, the D.O.E. ignored the evidence from their own lab and remained ambiguous about this key technical issue (Water Resources Research, Vol.35, No.1, Jan. 1999). Even the premature recommendation of this site to President Bush was pushed by Secretary Abraham in spite of the objections of D.O.E. scientists who needed at least six more years to finish the science to make a responsible rejection or a recommendation.

This plan has been driven by industry politics rather than responsible science. The NWP (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 NWP clearly instructs the D.O.E. 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

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(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. Gilinsky, testimony on May 22, 2002 to the Senate). If the D.O.E. is evaluated on the dismal performance of its duties (as outlined by NWPA) or its history of non-compliance with safety regulations (10 CFR 71), then the rejection of the license application is the only reasonable course of action for the NRC. The remainder of my comments focus on transportation issues (completely ignored by the D.O.E.'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.

## LEGISLATIVE MANDATES AND FEDERAL LAWS

The Nuclear Waste Policy Act requires 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 D.O.E. site selection did not comply with the NWPA. The NWPA requires that the D.O.E. select a suitable site. In December 2001, D.O.E. threw out the set of geologic criteria it had adopted as a formal rule in 1984. In its place, D.O.E. 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 D.O.E. to select a suitable site with geologic considerations to be the primary criteria. The D.O.E. 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 D.O.E. claims that the radioactive contamination will only impact the local area in the Amargosa Valley, but the laboratory that is operated by the D.O.E. 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. The hydrologic and geologic problems inherent in the proposed 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 D.O.E. 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 D.O.E. seemed to be preparing to use NSEs instead of complying with federal regulations.

Ground water contamination that the D.O.E. 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 D.O.E.'s blatant disregard of the laws and the best interest of the people of this country.

Many of the transportation routes identified by the D.O.E. 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). My daughter has confirmed these facts with her obstetrician and a radiologist at McKenzie-Willamette Hospital in Springfield, OR. The pregnant women I have known have had a difficult time getting out of a car if the door would not open completely and they move slowly in the last months of pregnancy. It stands to reason that 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 even begin to anticipate this scenario, which will occur daily and ought to be morally inconceivable to every human being!

Property values will dip along all transport routes. According to U.S. Census figures, more than fifty million citizens will suffer an economic loss due to this decrease. Also, 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 provision for equipping emergency workers that will be called to the scene of D.O.E.'s estimated 3 highway accidents per year.

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 D.O.E.'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's relationship to the railroad. Does the Review Plan mention updating the trains or maintaining the decrepit tracks to prevent numerous derailments, such as those that have already been under-reported? Rail shipments have increased in weight recently. Also, new larger cars are being phased in. Combine this with new, much longer pieces of rail being put in place, and the effect of extreme heat from weather that causes derailments in these longer sections of rail, and Yucca Mountain emerges as the most dangerous idea ever put forth by the D.O.E.

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).

## ENVIRONMENTAL JUSTICE

I would also like to stress to the NRC 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, pursuant 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 investment (land 10 miles from Yucca Mountain). Thus, the D.O.E.'s actions are grossly unconstitutional, under both the Nevada and U.S. Constitutions.

## SOLUTION/CONCLUSION

If the D.O.E. really believes that the geologic flaws in the site are of no consequence, given 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 horrors of leaking casks creating deadly public exposure, drip shields and "miracle metal" containers could immediately be installed 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 will eliminate inevitable irreparable surprise failures in the D.O.E. systems. The Review Plan overlooks that fact that the geochemical environment of the site is oxidizing, and will corrode the metal containers.

In conclusion, I want to implore the NRC to make existing waste sites safer now (most will still be in operation long after a permanent site is developed). The Review Plan must examine the option of not moving the waste at all. We cannot transport it safely, ever. Do not let the D.O.E. use research and development as a magic wand to avoid discussing safety issues. Thank you in advance for your prompt reply to these comments.

Sincerely,

[signature]

Bill Barrackman