

February 2, 2010

DOCKETED  
USNRC

U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001  
Attn: Rulemakings and Adjudications Staff

February 25, 2010 (3:21pm)

OFFICE OF SECRETARY  
RULEMAKINGS AND  
ADJUDICATIONS STAFF

Subject: Petition for Rulemaking  
RE: Update and proposed revision of Waste Confidence Decision (73 FR 59551-59570, October 9, 2008) and 10 CFR 51.23

Dear Sir/Madam:

**BACKGROUND**

The U.S. Department of Energy (DOE) submitted an application to construct a mined geologic repository at Yucca Mountain on June 3, 2008, in accordance with the Nuclear Waste Policy Act of 1982, as amended, and the Yucca Mountain Development Act of 2002. After conducting its customary acceptance review, the U.S. Nuclear Regulatory Commission (NRC or Commission) informed the DOE by letter, dated September 8, 2008, that its license application was suitable for docketing (73 FR 53284, September 15, 2008). Following this action, the NRC staff began its technical review of the application. During its review, the NRC staff asked the DOE some 600 questions on the application in the form of Requests for Additional Information (RAIs) and clarifications. The DOE responded to all questions with the requested information.

Despite the fact that the NRC made no indication that the application or its supporting science was deficient, on February 1, 2010, and contrary to existing laws, the administration proposed a \$0 budget for Yucca for FY 2011. As widely reported on March 4, 2009 by the Washington Post and others, the president wants to kill the Yucca Mountain project for political reasons.

Defunding of the Yucca Mountain project and the administration's announced plan to re-evaluate high-level radioactive waste management and disposal is a giant leap backward from the confidence expressed in the NRC's Waste Confidence Decision and its proposed October 9, 2008 revision, and undermines more than five decades of work by the DOE and the National Laboratories, other federal agencies, and the private sector in bringing to convergence what appears to be a safe, technically and economically feasible, and responsible method for closing the fuel cycle.

**The following petition for rulemaking is submitted in accordance with 10 CFR 2.802(c) and addresses the NRC's Waste Confidence Decision and its Update, Specifically Current Finding 2 (1990) [73 FR 59556, October 9, 2008] and Proposed Finding 2 [73 FR 59561, October 9, 2008], respectively.**

Current Finding 2 (1990) reads: "The Commission Finds Reasonable Assurance That at Least One Mined Geologic Repository Will Be Available Within the First Quarter of the

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Twenty-First Century, and That Sufficient Repository Capacity Will Be Available Within 30 Years Beyond the Licensed Life for Operation (Which May Include the Term of a Revised or Renewed License) of Any Reactor To Dispose of the Commercial High-Level Radioactive Waste and Spent Fuel Originating in Such Reactor and Generated Up to That Time.”

On July 15, 2008, the DOE’s Director of the Office of Civilian Radioactive Waste Management informed the Congress that, assuming adequate funding was made available, the mined geologic repository at Yucca Mountain could be ready to begin accepting spent fuel from commercial electric utilities in the year 2020, which would be in compliance with the NRC’s current Finding 2 (73 FR 79557). Noting the Director’s concern about adequate funding, however, the Commission proposed to revise Finding 2 to read: “The Commission finds reasonable assurance that sufficient mined geologic repository capacity can reasonably be expected to be available within 50-60 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of any reactor to dispose of the commercial HLW and spent fuel originating in such reactor and generated up to that time.” As made clear in the *Federal Register* at 73 FR 59557, this proposed revised finding was based on the notion that the initial operation of the mined geologic repository at Yucca Mountain could be delayed by a few years. Both current Finding 2 and proposed Finding 2 are tied to a specific solution: a mined geologic repository. As noted at 73 FR 59561, “In 2005, in response to PRM-51-8, the Commission had declined to consider such an approach to define ‘availability’ based on a presumption that some acceptable disposal site would become available at some undefined time in the future.” Thus, it is clear that the Commission’s proposed Finding 2 was grounded in the belief that the Yucca Mountain repository would become available within the first quarter of the twenty-first century or perhaps a few years later.

The Commission’s own words at 73 FR 59557 read: “Of course, now the only repository that could become available by 2025 is the proposed repository at YM and it will only become available if the Commission issues a construction authorization and subsequent authorization to receive and possess HLW.”

In *Natural Resources Defense Council v. NRC* (D.C. Cir., 1976), Judge Tamm wrote:

“NEPA requires the Commission fully to assure itself that safe and adequate storage methods are technologically and economically feasible. It forbids reckless decisions to mortgage the future for the present, glibly assuring critics that technological advancement can be counted upon to save us from the consequences of our decisions.”

The NRC’s waste confidence decision must, in its final analysis, demonstrate compliance with the requirements of the National Environmental Policy Act of 1969, as amended (NEPA). Judge Tamm’s words are fine in so far as they go. He addressed technological and economic considerations. However, his words did not anticipate the current political reality. The spirit of NEPA compliance cannot be satisfied by assuming some unknown, future solution to an existing challenge. Judge Tamm’s concerns must now be extended

past technical and economic considerations to political considerations, since the president defunded Yucca Mountain for clearly stated political reasons. The question for any confidence in a future waste decision now becomes: Can the Commission adequately anticipate and address future political considerations with regard to waste disposal? If the governor of a state with a planned mined geologic repository is willing to accept the facility, will his successor or a future president oppose it and halt the project? Indeed, if a repository designation for an isolated site already on federal land, and one that has been studied for decades, in close proximity to where hundreds of above and below ground tests of atomic weapons have been conducted cannot stand, then it is doubtful that any site in the future can be designated as a mined geologic repository, as would be required by proposed Finding 2.

**REQUESTED ACTION: Cease licensing of new nuclear power plants and begin an orderly phase out of existing operating nuclear power plants until the Commission can be assured not only of the technical and economic certainties of a waste disposition decision, but also of the political certainties associated with that disposition.**

§ 2.802(c) (1), the regulation(s) to be revoked, 10 CFR 51.23:

Nuclear power plants have been licensed and are allowed to discharge spent fuel and reload with fresh fuel based on the Commission's confidence that the many ideas for high-level radioactive waste disposal and the many methods and sites studied over a period of decades were converging. That convergence was manifested in June 2008 by the submittal of a license application to the NRC by the DOE for the construction of a mined geologic repository at Yucca Mountain. The president's unilateral decision to kill the proposed repository at Yucca Mountain signals that the convergence has ended and, as the administration and Secretary have said, "Yucca Mountain is no longer an option." This announcement translates the availability of an acceptable disposal site to some yet unidentified location at some undefined time in the future. This is the same basis turned down by the Commission in PRM-51-8, as noted above.

§ 2.802(c) (2), petitioner's grounds for and interest in the requested action:

I spent the first part of my professional career designing safety systems for commercial nuclear power plants and licensing same. I was proud of the work I did and that I was helping to lessen our dependence on imported oil. I never had a moment's doubt about our nation's ability to develop a safe and economical means for spent fuel disposal. During the latter part of my professional career, I was engaged in developing a safe, economical, and permanent means of spent fuel and high-level radioactive waste disposal. It seemed appropriate that after working on the front end of the fuel cycle I should contribute also to closing the back end. My responsibilities included preparing a number of sections of the license application for a mined geologic repository at Yucca Mountain. The application addressed the many technical and financial considerations contained in the NRC's regulations, but not any political considerations since the Commission's current regulations do not contain any such requirements. Historically,

unilateral political considerations have not been a factor in the Commission's licensing decisions. This changed with the president's decision to defund and kill the Yucca Mountain project. While many advocate continued and expanded use of commercial nuclear power to reduce our carbon footprint and help reduce our oil imports, it would be irresponsible to continue with the operation and refueling of existing plants and licensing of new ones without having confidence not only in the technical and financial aspects of final waste disposition, but also the political.

§ 2.802(c) (3), statement in support of the petition:

The NRC has been reviewing the DOE's license application and preparing its safety evaluation report (SER) for the proposed geologic repository at Yucca Mountain. The DOE has been responding to the NRC's technical questions on the application. The Commission has given no indication, either at the time of its acceptance review or during its technical review, that the proposed site or the application was in any way deficient. Nevertheless, it is clear that President Obama intends to kill the Yucca Mountain project, contrary to the direction provided by previous congresses. If the current Congress is complicit in allowing the Obama administration to thwart the will of previous congresses, as expressed in the Nuclear Waste Policy Act of 1982, its amendments, and the subsequent 2002 Yucca Mountain Development Act, then it is clear that the Commission's regulations at 10 CFR 51.23 are deficient and the Commission cannot rely on existing regulations to make a determination on issuance of a construction authorization or license for a mined geologic repository at some yet-to-be-identified location and at an undesignated time in the future. It is evident that the Commission needs to strengthen its current regulations by adding additional requirements addressing the political considerations of siting a mined geologic repository.

Thank you for your kind attention to this matter.



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cc:

Members, Senate Appropriations Committee on Energy and Water Development Subcommittee

Members, Senate Energy and Natural Resources Committee on Energy Subcommittee

Members, Senate Committee on Environment and Public Works

Members, House Appropriations Committee on Energy and Water Development Subcommittee

Members, House Energy and Commerce Committee on Energy and Environment Subcommittee