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August 18, 2006

Mr. Dale Klein,  
Chairman  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

RE: SPENT FUEL "AGING FACILITY" AT YUCCA MOUNTAIN

Dear Chairman Klein:

In a letter dated August 10, 2006 from NRC's Lawrence E. Kokajko, Deputy Director, Division of High-Level Waste Repository Safety, Office of Nuclear Material Safety and Safeguards, to Mark H. Williams, Director, Regulatory Office, Office of Civilian Radioactive Waste Management ("OCRWM"), U.S. Department of Energy, NRC Staff provided comments to OCRWM on regulatory criteria and other possible areas of consideration for the development of Transport, Aging and Disposal (TAD) canister designs and performance specifications in connection with the proposed Yucca Mountain repository.

In an attachment to the letter, at footnote 2, Staff made the conclusory remark that "Aging [of spent fuel] at [the] proposed Yucca Mountain Repository will be governed by 10 CFR Part 63." This statement is both premature and incorrect. Such a facility has not been determined by NRC to be merely incidental to operation of the repository and is *not* governed by and cannot be licensed under Part 63.

We would remind the Commission that the law clearly prohibits a spent fuel storage facility in Nevada, whether euphemistically called an "aging" facility or not. A repository would of course need a modest amount of above-ground storage incidental to its operation to buffer the movement of spent fuel from reactor sites. But that is a far cry from the gargantuan "aging facility" described by DOE, which implies a very different function – one that could just as easily be performed (and *is* being performed) at numerous reactor sites.

As DOE has described it, its proposed “aging facility” would be both an “Independent Spent fuel Storage Installation” (“ISFSI”) as defined by NRC in 10 C.F.R. §72.3, and, because it is to be built and operated by DOE, a “Monitored Retrievable Storage” installation (“MRS”) as also defined in 10 C.F.R. §72.3 and in the Nuclear Waste Policy Act (“NWPA”) Subtitle C. NWPA Section 145(g) expressly provides that “[n]o [MRS] authorized pursuant to Section 142(b) may be constructed in the State of Nevada.” In designating a proposed site for the “aging facility,” DOE also unlawfully failed to follow the site selection criteria for a proposed MRS in NWPA Sections 145 through 149.

Assuming *arguendo* that the facility was not an MRS, it would nevertheless be an ISFSI, which would require a separate NRC license under 10 C.F.R. Part 72. Part 72 also requires completion of a stand-alone Environmental Impact Statement for ISFSI construction. DOE’s failure to provide this mandatory evaluation to date, while making specific proposals to NRC in connection with Part 63, is a material departure from the requirements of both the NWPA and the National Environmental Policy Act (“NEPA”). 42 U.S.C. § 4332(c); 40 C.F.R. §1508.27. It is interesting to note that, in the Yucca administrative record before DOE, the agency has historically always understood that an “interim storage facility” could be constructed at Yucca only “if the NWPA were changed.” NR-1.01412-4; NR-1.02409-2. Nevada agrees. There is nothing in Part 63 or the factual record to date that would permit the licensing of DOE’s “aging facility” as simply an incidental fragment of the overall repository.

The approach suggested by NRC Staff’s footnote 2 is also seemingly inconsistent with previous statements on this subject made by NRC staff. In a February 3-4, 2004 Technical Exchange between NRC staff and OCRWM staff, the question was raised from the floor whether DOE’s proposed “aging facility” would be reviewed for licensing under 10 C.F.R. Part 63 as simply a fragment of the repository, or under 10 C.F.R. Part 72 as an independent storage facility. William Reamer, NRC’s Director of High-Level Waste Repository Safety, responded that the staff review would include *making a determination* whether the facility’s function was merely integral to the operation of the repository, implying that if it were simply integral to operations it would be seen as part of the repository and only then could it be reviewed under 10 C.F.R. Part 63. In an April 19, 2004 follow-up letter to the questioner, Ms. Judy Treichel, Mr. Reamer stated: “If the LA [License Application] includes a surface aging facility, NRC will review that facility to determine whether it complies with 10 CFR Part 63. In that event, the NRC’s review of the repository would include design, construction and operation of the aging facility and its integration with other facilities of the repository.” Notably, he did not venture the premature policy judgment that the review “*would be governed*” by Part 63. Even if that were theoretically possible, no such determination has been made by NRC.

The essential technical point is that fuel cooling is *not* integral to the operation of a repository licensed for permanent disposal of spent nuclear fuel. Fuel cooling begins with the removal of irradiated fuel from an operating reactor, and continues throughout the decay period of the radionuclides contained in the fuel. Thermal limits for a particular repository geologic setting and design may require control of the thermal impact of the

irradiated fuel within the repository, but this does not require “aging” the fuel *at the repository site*. The “aging facility” as conceived for a Yucca Mountain repository is unquestionably *interim storage* of commercial spent nuclear fuel – interim between removal from the reactor site and emplacement in the repository. This naturally falls under the scope of 10 C.F.R. Part 72, and is an activity prohibited in the State of Nevada. If the purpose of the facility were really to optimize repository loading operations, its capacity would be roughly comparable to its yearly intake instead of constituting a large fraction of the total legal spent fuel capacity of the repository, so the nation’s spent fuel can conveniently be stored at Yucca Mountain rather than at reactor sites

DOE gives away the facility’s real purpose by its title – “Aging Facility” – which is distinctly separate from the purpose of operating the repository. The NRC staff should note this distinction and retract its prejudicial announcement that “aging at the proposed Yucca Mountain Repository will be governed by 10 CFR Part 63.” That determination is, at best, premature.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert R. Loux". The signature is fluid and cursive, with a large, sweeping flourish at the end.

Robert R. Loux  
Executive Director