December, 11, 2006

Dr. Jane Summer son
EIS Document Manager
Regulatory Authority Office
Office of Civilian Radioactive Waste Management
U.S. Department of Energy
1551 Hillshire Drive, M/S 010
Las Vegas, NV 89134


Dear Dr. Summerson:

The purpose of this letter is to provide the comments of the State of Nevada Agency for Nuclear Projects on the scope of the Supplemental Yucca Mountain Environmental Impact Statement (EIS). Enclosed is an October 31, 2006 Statement of the Agency regarding both the subject Notice of Intent and the Amended Notice of Intent to prepare a Supplemental Yucca Mountain Rail Corridor and Rail Alignment EIS (DOE/EIS-0250F-S2 and DOE/EIS-0369). It is our intent that the portions of this Statement that are relevant to the subject Notice of Intent be incorporated in these comments. It is also our intent that our enclosed August 8, 2006 comments on the Draft Environmental Assessment for the Proposed Infrastructure Improvements for the Yucca Mountain Project (DOE/EA-1566, June 2006) be incorporated into these comments to the extent they are relevant pursuant to Footnote 7, P. 60492, of the subject Notice of Intent.
The Proposed Action

Based on the fact that the subject Notice of Intent provides no reference to the availability of supporting documentation for the Department’s current planning (e.g., the Department’s Critical Decision 1 document), and the Proposed Action in the Notice of Intent is, at best, a minimal description of the current planning, we find no basis for the Notice of Intent statement that “the Department does not believe that any of the developments to the repository design or operational plans would have a significant impact on the environmental effects considered in the Yucca Mountain Final EIS.” P. 60491. Therefore, the Supplemental EIS must include a comprehensive description of the current repository design and operational plans and a rigorous evaluation of the impacts on the environment of every aspect of the proposed design and operational plans.

Aircraft Hazard

The limited information on design and operational plans indicates major changes from the Yucca Mountain EIS in the repository surface facility layout and function. All of the proposed surface structures are vulnerable, to a varying extent, to aircraft hazards, primarily from military aircraft that may or may not be carrying live ordinance. The October 2006 Bechtel/SAIC report “Frequency Analysis of Aircraft Hazards for License Application” (Accession Number: ENG.20061025.0001) relies on a 5.6 statute mile diameter restricted airspace up to 14,000 feet mean sea level over the Yucca Mountain area to limit the probability of an accidental impact that results in radiological consequences. For purposes of the Supplemental EIS, this constrained analysis is not sufficient. The analysis should include all credible aircraft hazards to the entire facility with both radiological and non-radiological consequences to the public and workers. Also, the analysis must not include any assumed airspace restrictions beyond those that are currently in effect. There is no basis for certainty that any new airspace restrictions will become effective over Yucca Mountain at any time in the near or more distant future; therefore, the only acceptable assumption for this analysis is that only current airspace restrictions apply.

The No Action Alternative

The Notice of Intent indicates that the Department intends to incorporate by reference the No Action Alternative in the Final Yucca Mountain EIS because “[s]ince completion of the Yucca Mountain Final EIS, DOE has not identified any relevant changes in circumstances or information bearing on environmental concerns regarding the No Action Alternative.” P. 60493. This intent is improper on two counts. First, the two scenarios analyzed as No Action Alternatives in the Final Yucca Mountain EIS were, and still are, unreasonable and inappropriate for a NEPA analysis. Nevada’s comments to this effect, in its February 28, 2000 comments on the Yucca Mountain Final EIS, are hereby incorporated by reference in these comments. And second, there has been a significant relevant change in circumstances since the Final EIS was issued. Both No Action Alternative scenarios of the Final Yucca Mountain EIS rely on the 10,000-year compliance period for the Yucca Mountain Environmental Protection Agency (EPA)
Standard, 40 CFR Part 197, but that compliance period was struck down by the U.S. Circuit Court of Appeals for the District of Columbia. EPA has since proposed a compliance period of one million years that, if finally promulgated, would invalidate the Department’s No Action Alternative analyses and further illustrate how unreasonable they initially were. The scenarios involve environmental effects of leaving the spent fuel at the reactor sites with either some institutional control or no control for 10,000 years - both actions the Department itself admits in the Final EIS are unrealistic. A similar one million year analysis would also be absurd. The Supplemental EIS must analyze a reasonable No Action Alternative that is appropriate to a credible and lawful NEPA analysis.

Moreover, there have been numerous important developments in industry and government that affect the credibility and impact analysis associated with DOE's evaluation of the No Action Alternative. First, the industry's Private Fuels Storage facility on the Goshute Indian Reservation in Utah received a license this year for the long-term interim storage of very substantial quantities of commercial spent nuclear fuel. The No Action Alternative did not evaluate regional consolidation of interim storage, which affects costs, transportation, and institutional impacts. Second, there is pending legislation in the U.S. Congress to spur development of on-site and/or regional interim spent fuel storage that is likely to reappear in the next Congressional session. Third, since the original FEIS was published, utilities have developed a number of additional on-site spent fuel storage facilities. And finally, utilities have settled several lawsuits with DOE concerning damages and costs associated with interim storage due to DOE's failure to adhere to the Nuclear Waste Policy Act's 1998 deadline. The dollar-figures associated with these settlements strongly suggest that DOE has greatly overestimated the costs of interim dry storage at utility sites in its FEIS. In sum, DOE's No Action Alternative needs massive re-working.

Cumulative Impacts

The National Nuclear Security Administration (NNSA) has issued a Notice of Intent to prepare a Supplement to the Stockpile Stewardship and Management Programmatic Environmental Impact Statement - Complex 2030 (DOE/EIS-0236-S4). 71FR202, October 19, 2006, 61731-61736. According to the Notice, “[t]he SEIS will analyze the environmental impacts from the continued transformation of the United States’ nuclear weapons complex by implementing NNSA’s vision of the complex as it would exist in 2030, which the Department refers to as Complex 2030, as well as alternatives.” The Nevada Test Site is integral to the existing complex. The Notice of Intent lists its current activities as follows:

“Maintains capability to conduct underground nuclear testing; conducts experiments involving nuclear materials and high explosives; provides capability to disposition a damaged nuclear weapon or improvised nuclear device; conducts non-nuclear experiments; and conducts research and training on nuclear safeguards, criticality safety and emergency response.
Maintains Category I/II quantities of SNM associated with the nuclear weapons program.”

As a result of the Complex 2030 SEIS, the activities at the Nevada Test Site could be expanded with the Department’s intended consolidation of its complex. The Draft SEIS is expected to be issued for public review and comment during the summer of 2007. The subject Supplemental EIS must consider cumulative impacts arising from past and current activities at the Nevada Test Site, as well as any new activities proposed for the Nevada Test Site in the Complex 2030 SEIS. Proposed Complex 2030 activities could vastly increase the scope of relevant impacts that would be initiated during the operational period of a Yucca Mountain repository.

The “Aging (Staging)” Pads

The subject Notice of Intent speaks in general terms of the use of “aging (staging)” pads, and makes the following distinction between the two:

“The terminology refers to retaining commercial spent nuclear fuel on the surface at the repository to meet waste package thermal limits (aging), or to provide a surge capacity to maintain flexibility in waste handling operations (staging).” Footnote 4, P. 60491.

The concept of a staging area to facilitate repository operations is reasonable and has precedent in the operational restrictions applied to the DOE’s Waste Isolation Pilot Plant in New Mexico. However, an aging facility at a Yucca Mountain repository is not within the meaning of a “repository” as defined in the Nuclear Waste Policy Act, and thus is not authorized. The Act defines “repository” as follows:

“The term “repository” means any system licensed by the Commission that is intended to be used for, or may be used for, the permanent deep geologic disposal of high-level radioactive waste and spent nuclear fuel, whether or not such system is designed to permit the recovery, for a limited period during initial operation, of any materials placed in such system. Such term includes both surface and subsurface areas at which high-level radioactive waste and spent nuclear fuel handling activities are conducted.” Definitions, Section 18.

The aging facility, as its function is described in the Notice of Intent, is instead a Monitored Retrievable Storage (MRS) facility for which the MRS Commission determined, in 1989, there was no need in the national nuclear waste management system in order to meet the purposes of the Nuclear Waste Policy Act. Furthermore, the Act prohibits the siting of an MRS in any state with a site selected for site characterization or development of a repository. Section 141(g).

The Supplemental EIS should describe the need for and analyze the environmental impacts associated with construction and use of a staging facility. If an
The Transportation, Aging, and Disposal Canister (TAD) System

The proposed implementation of the TAD system raises a wide range of logistical, legal, regulatory, repository performance, criticality, transportation, design, thermal management, and waste handling issues for which no documentary analyses have been made available by the Department. The Nuclear Regulatory Commission has written to the Department about some of the regulatory issues (enclosed letter: Kokajko to Williams, August 10, 2006). We incorporate by reference that letter in these comments. And, the Nuclear Waste Technical Review Board has written to the Department regarding a number of other TAD-related issues (enclosed letter: Garrick to Golan, June 14, 2006) and the Department has responded (enclosed letter: Sproat to Garrick, August 21, 2006). We also incorporate by reference both this letter and the response in these comments. The Supplemental EIS must include analysis and provide resolution to the matters raised in these letters.

The Supplemental EIS must give particular attention to the transportation impacts of deploying the TAD system and compare these impacts with the transportation impacts evaluated in Chapters 3 and 6 and Appendix J of the Yucca Mountain FEIS. The Supplemental EIS must assess the potential for use of the TAD system at each of the 72 commercial reactor sites and 5 DOE sites. DOE must identify the most likely routes for direct rail and/or intermodal shipment from each of these sites and the most likely cross-country routes for rail shipment of TAD canisters and dual-purpose casks to Nevada, for both the Caliente and Mina rail line options. DOE must also identify the most likely highway routes for legal-weight truck shipments from sites that ship uncanistered fuel directly to the repository. These routes must be clearly shown on national and state maps, and the maps must identify potentially affected Indian Tribes and major population centers. The Supplemental EIS must consider a credible range of modal mix scenarios, the resulting shipment numbers, and radiological and non-radiological risks and impacts. The Supplemental EIS must consider a credible range of radiological characteristics for the commercial spent fuel shipped to the repository under the repository high thermal loading scenario and evaluate the implications for routine transportation exposures, severe transportation accidents resulting in release of radioactive materials, and successful acts of sabotage against repository shipments.

Waste Isolation

The subject Notice of Intent lists Potential Environmental Issues and Resources to be examined. The topic Waste Isolation includes “Potential radiological and non-radiological impacts (e.g., chemically toxic materials) associated with the long-term performance of the repository.” The Supplemental EIS should include in these analyses evaluation of the risks of exposure to complex mixtures of radionuclides and hazardous metals that will result from degradation of the waste packages and dissolution of the waste forms. All degradation and dissolution products transportable from the repository
by groundwater also should be evaluated for compliance with the Resource Conservation and Recovery Act (RCRA) and the Safe Drinking Water Act throughout the compliance period of the EPA Yucca Mountain standard (40 CFR Part 197).

We appreciate the opportunity to comment on this Notice of Intent to Supplement the Yucca Mountain Environmental Impact Statement.

Sincerely,

Robert R. Loux
Executive Director

RRL/cs
Enclosures
cc Governor Guinn
   Attorney General George Chanos
   Nevada Commission on Nuclear Projects
   Nevada Congressional Delegation
   Affected Local Governments and Tribes
Enclosures

The following enclosures are incorporated by reference and made part of these comments:

http://www.state.nv.us/nucwaste/news2006/pdf/nv061031doe_noi.pdf

http://www.state.nv.us/nucwaste/news2006/pdf/nv060808doe.pdf

Letter and Enclosure: Kokajko (NRC) to Williams (DOE), August 10, 2006.
http://adamswebsearch2.nrc.gov/idmws/doccontent.dll?ID=062280073:&LogonId=5e815086ab83a78a9a12adf8c292bb76; and enclosure:
http://adamswebsearch2.nrc.gov/idmws/doccontent.dll?ID=062330126:&LogonId=1c14f3d7f76737421cca8f613660fd89

Letter: Garrick (NWTRB) to Golan (DOE), June 14, 2006.

Letter and Enclosure: Sproat (DOE) to Garrick (NWTRB), August 21, 2006.