June 5, 2008

Honorable Dale Klein, Chairman
Honorable Gregory Jaczko
Honorable Peter Lyons
Honorable Kristine Svinicki
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Dear Chairman Klein and Commissioners:

We write you today to express our deep concern with the Department of Energy’s license application for construction of a nuclear waste repository in Nevada. It would be a grave error for the Commission to docket the Department’s license application for a complete technical review.

As you know, on June 3, 2008 the DOE filed with the Commission the long-awaited license application to build a repository at Yucca Mountain. Over the next 90 days, Commission staff will review the application to determine whether it is complete or not. If the DOE’s application is incomplete, the Commission has the authority to refuse to docket the deficient application and return it to the Department.

We recognize that the Commission and its staff faces what may seem like overwhelming pressure to accept DOE’s license application for review. Highly qualified scientists have dedicated their entire careers to making Yucca Mountain the world’s first repository for spent nuclear fuel. Up until very recently, the nuclear energy industry has erroneously told Americans that the fate of nuclear energy is tied to the construction of Yucca Mountain. It is indisputable that America faces difficult challenges in finding and implementing a scientifically sound solution for safely managing nuclear waste.

In light of this pressure, the Commission cannot allow the important goal of solving the nuclear waste problem to trump your agency’s obligation to protect the health and safety of all Americans, including Nevadans.

The DOE’s license application is undoubtedly incomplete. The Department is asking to build a one-of-a-kind nuclear waste facility that must permanently isolate a tremendous amount of radiation from the environment. Despite the gravity of its endeavor, DOE is only providing the Commission with designs that are 35 percent complete. Additionally, the Environmental Protection Agency has not finalized its radiation protection standard for Yucca Mountain, yet DOE has inexplicably expressed confidence that its incomplete repository design can meet the yet-to-be seen standard. Worst of all, DOE’s designs rely heavily on the installation of titanium
“drip shields” over the nuclear waste casks in Yucca Mountain sometime over the next 300 years. But the Department will not tell the NRC how it plans to achieve this feat, which may be physically impossible and financially infeasible, 300 years from now.

Despite over 20 years of work on the Yucca Mountain project, uncertainty still plagues the science and engineering of the proposed repository. The Transportation Aging and Disposal (TAD) canister component of the project is an important example of how far away the DOE is from presenting the Commission with a licensable proposal. Last week, a respected engineering firm – Holtec International – that was bidding on DOE’s contract to design and license TAD canisters for the project chose to discontinue its efforts to win the TAD contract, stating:

“Our reason for reticence in this matter is the materiality of the project which, as configured, is a mission impossible. Consider DOE’s mandate that the aging module at the Geological Repository Operations Area must be able to remain kinematically stable under the Yucca site’s Design Basis Earthquake. At three times the acceleration due-to-gravity, the Yucca quake will turn an array of freestanding casks into a chaotic mêlée of bouncing and rolling juggernauts. (A computer simulation of a freestanding HI-STORM 170 under a 3g earthquake, available from us upon request, will convince the reader of this publication that pigs will fly before the cask will stay put!)”

As you probably expect, it concerns us greatly that the Commission would consider DOE’s license application complete when there are: (1) no designs available for the TAD canisters – a critical component of the project; and (2) serious questions about whether DOE’s concept will even keep canisters from “bouncing and rolling” while they are at an above ground temporary storage site by the proposed repository.

Finally, we share a deep concern with the timing of the DOE’s license application submission and what it means for the NRC. As an independent commission, we would hope that the NRC would refrain from making any large decisions or announcements within 60 days of the presidential election to avoid any appearance of bias. Other independent agencies, such as the Government Accountability Office, refrain from publishing reports or making policy recommendations prior to elections to protect the integrity of the agency. We hope that the NRC would want to do the same.
We have no doubt that the Department of Energy’s decision to file its license application on June 3rd was a political decision. There are too many components missing from the license application to suggest that the Department is genuinely prepared to make its case for moving forward on the Yucca Mountain project. We strongly urge the Commission to reject the Department’s approach and avoid making a decision that could have the appearance of bias.

Sincerely,

Harry Reid  
U.S. Senator

John Ensign  
U.S. Senator

Shelley Berkley  
U.S. Representative

Jon Porter  
U.S. Representative

Dean Heller  
U.S. Representative