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September 10, 2007

Honorable Dale E. Klein  
Chairman  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

**RE: DOE's New Licensing Strategy for its  
Yucca Mountain License Application**

Dear Chairman Klein:

It appears that both of our organizations are about to be victimized by the Department of Energy ("DOE") in the same way. Recent DOE documents reveal that, to meet its self-imposed repository schedule, DOE intends to submit a Yucca Mountain license application ("LA") to NRC based on a version of its Total System Performance Assessment ("TSPA") that it knows to be incomplete, opaque, and technically deficient. To cope with the questions that will inevitably arise about this TSPA, DOE is developing an altogether *different version* that it considers more defensible, but which will not be ready in time for its scheduled June 2008 LA submission.

Succumbing to DOE's new strategy will mean that the resources of NRC, the taxpayers, and all stakeholders devoted to careful review of the TSPA in the initial LA will be wasted. Moreover, the entire licensing review and hearing process will be upended when DOE switches midstream to its "real" assessment. A foreseeable consequence is that the four-year hearing schedule prescribed for NRC's Yucca review will be unachievable. What is particularly stunning about DOE's plan is that DOE already knows now, almost a year before June 2008, that its initial LA submission at that time will be woefully deficient.

DOE's new strategy is explained in various documents recently placed on the Licensing Support Network ("LSN"). Document DN2002355726 is a good example. Here, DOE's lead laboratory contractor explains that there will be a "next generation performance assessment" which will not be confined to the current obsolete TSPA

architecture, but will incorporate state-of-the-art algorithms and computational software and new information as available. This “next generation PA will support license defense activities *after* the 2008 LA submittal” [emphasis added]. (Document attached)

Because this “next generation” performance assessment will use a completely new technical architecture, as well as new algorithms and software, it is not simply a “supplement” to the assessment in the initial LA. Instead, it is a wholly new approach to DOE’s post-closure performance assessment that will require restarting the entire NRC review and hearing process. To facilitate this approach, numerous safety issues that cannot be resolved in time for inclusion in the June 2008 LA are also being deferred by DOE to this new assessment. *See, e.g.*, DN2002380715 and DN2002372312 (Attached).

Obviously, meeting an artificial deadline has become more important to DOE than complying with 10 C.F.R. § 63.10(a), which requires DOE’s *initial* LA to be “complete and accurate in all material respects.” Indeed, communications among Sandia personnel confirm that they will “be out of a job” if they fail to meet DOE’s artificial schedule. Reflecting this, management has published a hierarchy of priorities in which safety and technical accuracy are listed in third place, behind “schedule” (No. 1) and litigation “defensibility” (No. 2). (Attached)

What is perhaps less evident is that the drive to meet DOE’s self-imposed schedule is likely to irredeemably corrupt the Analysis Module Reports (“AMRs”) finalization process - reports that provide the actual scientific support for parameter choices and distributions in the TSPA. This corruption will apply to both the initial and the subsequent versions of the TSPA. Because the AMRs are not yet complete, the TSPA-LA will be run with parameters obtained now through estimates and elicitation. The idea is that the fully developed AMRs, completed only near or after LA submission, will eventually provide the necessary scientific backup to the TSPA’s calculations. The obvious problem with this cart-before-horse approach is that DOE’s contractors will be under enormous pressure to provide results that do not upset the initial submission to NRC. In other words, the data are susceptible to being reverse engineered to fit the long-defended initial program.

Nevada has also recently learned that DOE’s schedule-driven manipulations do not end with the TSPA. According to lead contractor Sandia, DOE’s entire Technical Data Management System (“TDMS”) now used for the LA is materially flawed. After observing that “[s]cientific and engineering data used in the PA must have pedigree; hence, the management of this data and information is critical to the credibility and accountability of the simulations,” Sandia concluded that the current TDMS

“cannot guarantee the ‘correctness’ of the process nor the ‘correctness’ or authenticity of the data, and consequently, accountability for license defensibility may fail in certain cases. Additionally, most of the TDM System’s hardware, operating system software, middleware, database management system software, and programming languages are outdated technologies.” *See* DN2002388002 (Attached)

In short, notwithstanding years of preparation, DOE's TSPA and the TDM system used to support it are acknowledged to be obsolete, technically inaccurate, incomplete, and, most important, insufficient to defend the LA. Rather than fix these serious problems *before* submitting an LA, DOE's senior management has instructed contractors to serve up these flawed instruments as a hollow placeholder, one which DOE knows cannot possibly pass muster before NRC and result in the award of a license, a placeholder which will therefore be radically changed after serving its apparent role of meeting the promised June 2008 LA date. DOE seems to be presuming that NRC and Congress will be more tolerant of its waste program mismanagement if only some kind of LA can finally be submitted and docketed – a symbolic demonstration of “progress.”

What the public documents clearly reveal, however, is that DOE intends to abuse the regulatory process for this ostensible political gain. NRC will be the principal victim of the abuse, followed by all stakeholders, like Nevada, whose primary concern is the safety of the repository and the integrity of the review process. To avoid these abuses, DOE should be told now that if it doesn't have its act together, it should do the right thing and delay submittal of the LA until it does. DOE should also be instructed that if it elects to file an LA using its current TSPA, *that assessment* will be the one DOE must defend in the review process, not some new assessment that is later force-fed into the proceeding.

Should you have any questions or wish to discuss the matter further, please do not hesitate to contact me.

Sincerely,



Robert R. Loux  
Executive Director

RRL/cs

Attachments

cc Commissioner Jaczko  
Commissioner Lyons  
NWTRB  
ACNW  
Nevada Congressional Delegation  
Catherine Cortez Masto, Attorney General