UNITED STATES
NUCLEAR REGULATORY COMMISSION
ATOMIC SAFETY AND LICENSING BOARD PANEL
WASHINGTON, DC 20555 - 0001

December 17, 2009

MEMORANDUM TO: Administrative Judge Thomas S. Moore
Chair, Construction Authorization Board 4

Administrative Judge Paul S. Ryerson
Member, Construction Authorization Board 4

Administrative Judge Richard E. Wardwall
Member, Construction Authorization Board 4

FROM: Daniel J. Graser ***/RA/***
Licensing Support Network Administrator

SUBJECT: ISSUES REGARDING FUNDING FOR CONTINUED OPERATION OF THE LICENSING SUPPORT NETWORK

In accord with 10 C.F.R. § 2.1011(c) (1), I wish to advise Construction Authorization Board (CAB) 4 of a potential matter for its consideration.

Recent press reports have indicated that the Department of Energy (DOE) is seriously considering attempting to withdraw the Yucca Mountain high-level waste (HLW) repository construction authorization application or otherwise suspend its participation in the HLW repository licensing proceeding. Presumably, this would also involve some action that would suspend or terminate its involvement in the Licensing Support Network (LSN). As a search and retrieval interface using internet technology, the LSN has been implemented in such a way that each party operates and pays for the maintenance of its own document collection, with no single organization being the custodian of the entire corpus. As a consequence, for any scenario that involves long-term suspension or termination of the licensing proceeding, a number of technical issues arises relative to the LSN, including:

1. If DOE takes its existing document collection off-line and/or archives that collection, all of the DOE collection pointers in the LSN portal will generate an internet error message that the file is not available. Because DOE's material represents 98.9 percent of the entire LSN collection content, this would be a significant blow to the continued viability of the LSN.

2. Based on my understanding of the computer infrastructure of the DOE system, it is questionable whether that system could operate in a "lights-out" mode (i.e., left "on" under the care of a contractor but with no active maintenance or oversight by DOE employees) for any extended period of time without some hardware or software failure being experienced that would render the DOE collection inaccessible.

3. It is also questionable whether the LSN system – including the current LSN portal website as it is operated by the LSN Administrator -- could be restored once it has been decommissioned for any extended period of time. To resurrect the LSN portal site alone likely would require five years and multiple millions of dollars.

4. Technologically, the DOE collection will be extremely difficult to salvage if it is ever decommissioned. The DOE collection was built using custom code that essentially recreates documents "on-the-fly" when they are requested via the LSN portal. It is highly unlikely that the original application software developed years ago by DOE's Management & Operations (M&O) contractors, in conjunction with the approximately 83,630,000 unstructured, individual page-level data files comprising the images, text, HTML and bibliographic components of the DOE documents, can be restored to operate successfully years in the future by individuals with no previous experience with DOE's current operating environment on a new system employing new hardware and a new or updated operating system. To preserve this valuable scientific, engineering, and historical information would require aggregating the current page-level data back into document-level entities and converting the document-level data to text-searchable Portable Document Format (PDF). That information in PDF format then would require long-term custodianship.

5. From inquiries to LSN staff by a number of the Affected Units of Local Government (AULGs), parties currently are confronted with deciding what commitment to make for webhosting agreements to sustain their document collections, which is a difficult business decision in light of recent press coverage indicating the DOE license application may be withdrawn.

The current climate of uncertainty about whether the DOE license application is going to be withdrawn is anathema to the good management and planning essential for maintaining a sophisticated computer infrastructure like the LSN -- whether a party's document collection is large or small. Accordingly, in addition to alerting the Board to the looming major technology and investment issues specified above, I would suggest that further inquiry be made of the parties to obtain information that is needed to fully understand and attempt to address these issues. It thus is my recommendation that DOE and the other parties to the proceeding, as specified below, be queried as to:

A. The exact DOE budget and FTE allocations for the operation of its LSN collection that can be expected for the remainder of FY 2010 and for FY 2011.
B. DOE's precise plans, and contingency plans, for maintaining its LSN document collection under its FY 2010 and FY 2011 budget allocations.
C. Under a scenario in which parties would no longer be required to maintain an active LSN document collection, each party's intended disposition plans for all data and documents that are currently regulated pursuant to 10 C.F.R. Part 2, Subpart J.

As long as the Nuclear Waste Policy Act is operative and the agency's regulations for the conduct of hearings related to the licensing of a geologic repository are in effect, I recommend that all appropriate steps be taken by the Board to ensure that no party takes any action relative to its LSN collection that would be prejudicial to the current, or any future, geologic repository licensing effort