

July 19, 2011

Memorandum To: Catherine Haney, Director  
Office of Nuclear Material Safety  
and Safeguards

From: Aby Mohseni, Acting Director */RA/*  
Division of High-Level Waste Repository Safety

Subject: TECHNICAL EVALUATION REPORT ON THE CONTENT OF  
THE U.S. DEPARTMENT OF ENERGY'S YUCCA MOUNTAIN  
REPOSITORY LICENSE APPLICATION; POSTCLOSURE  
VOLUME: REPOSITORY SAFETY AFTER PERMANENT  
CLOSURE

The attached Technical Evaluation Report (TER) on the Content of the U.S. Department of Energy's (DOE's) Yucca Mountain Repository License Application, represents the Nuclear Regulatory Commission (NRC) staff's assessment of information DOE provided about repository performance after a repository is permanently closed. The purpose of this memo is to inform you that I am authorizing publication of the TER by July 21, 2011. Note that the enclosed TER is based on the TER version placed in ADAMS on March 31, 2011 (ML110910348). On June 21, 2011 you provided comments on the March 31 version, which you later modified on June 22. The enclosed TER includes the changes to the March 31 version that you requested.

In October 2010, the NRC staff commenced orderly closure of its Yucca Mountain activities. As part of that orderly closure, the NRC staff prepared this TER, a knowledge management document, to document NRC staff's technical assessment of information presented in DOE's Safety Analysis Report (SAR), dated June 3, 2008 as amended, and supporting information. The TER describes the NRC staff's technical evaluation of the DOE SAR and, in particular, this TER Postclosure Volume provides technical insights on the application of performance assessment in the context of geologic disposal. The TER was developed using the publicly-available Yucca Mountain Review Plan (NUREG-1804, Revision 2) as a guide. While the TER does make reference to NRC's regulations at 10 CFR Part 63, it does not include conclusions as to whether or not DOE satisfies those regulations.

Prior to October 1, 2010, the NRC staff was preparing a Safety Evaluation Report that represented NRC's licensing assessment of DOE's SAR. Since October, reviews of individual chapters of the SER Volume 3 have been ongoing for the purposes of developing a TER. This was the most effective and efficient method of capturing the staff's technical review of DOE's SAR for knowledge management purposes and precluded the need to start entirely over.

CONTACT: Jack Sulima, NMSS/DHLWRS  
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