

December 18, 2006

Mr. Mark H. Williams, Director  
Regulatory Authority Office  
Office of Civilian Radioactive Waste Management  
U.S. Department of Energy  
1551 Hillshire Drive  
North Las Vegas, NV 89134-6321

SUBJECT: RESPONSE TO U.S. DEPARTMENT OF ENERGY SUMMARY OF  
PRECLOSURE SAFETY ANALYSIS RELIABILITY ASSESSMENT  
METHODOLOGY

Reference: Ltr, Mark H. Williams to Lawrence E. Kokajko, dated August 25, 2006,  
"Transmittal of Summary of Preclosure Safety Analysis Reliability Assessment  
Methodology"

Dear Mr. Williams:

This letter provides U.S. Nuclear Regulatory Commission (NRC) staff feedback on U.S. Department of Energy's (DOE) *Summary of Preclosure Safety Analysis (PCSA) Reliability Assessment Methodology*. During the May 16-17, 2006, Technical Exchange (TE) and Management Meeting on PCSA and Supporting Information, DOE committed to providing a summary of its PCSA reliability methodology by August 25, 2006. In the referenced letter, dated August 25, 2006, DOE submitted the *Summary of PCSA Reliability Assessment Methodology*. NRC and DOE also discussed reliability methodology as part of the November 7-9, 2006, NRC/DOE PCSA Topics TE and Management Meeting. Staff comments - are based on the review of DOE's document and the November 7-9, 2006 NRC/DOE TE and Management Meeting. Staff has provided comments on DOE's summary document in the enclosure.

DOE's reliability assessment methodology summary document provides an overview of different reliability assessment methods, with generic examples. DOE's summary is useful because it explains how DOE might approach the reliability assessment to meet the 10 CFR Part 63 PCSA requirements. As NRC stated in the November 7 - 9, 2006, TE and Management Meeting, the implementation of the methodology in the PCSA is key for demonstrating compliance with regulatory requirements. At this time, it is unclear to NRC how DOE will implement the reliability assessment methodology in its PCSA. NRC welcomes any further discussion on the actual implementation of methodologies discussed in the summary document, when DOE is ready to present actual implementation examples.

M. Williams

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If you have any questions regarding this matter, please contact Albert Wong, of my staff, at (301) 415-7843 or by e-mail at [axw2@nrc.gov](mailto:axw2@nrc.gov).

Sincerely,

/RA/

Jack Davis, Deputy Director  
Division of High-Level Waste Repository Safety  
Office of Nuclear Material Safety  
and Safeguards

Enclosure: NRC Staff Feedback on DOE's  
*Summary of Preclosure Safety  
Analysis Reliability Assessment  
Methodology*

cc: See attached list.

Letter to M. Williams from J. Davis dated: December 18, 2006

cc:

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R. Massey, Churchill/Lander County, NV	J. Treichel, Nuclear Waste Task Force
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E. von Tiesenhausen, Clark County, NV	R. Murray, DOE/OCRWM
G. McCorkell, Esmeralda County, NV	G. Runkle, DOE/Washington, D.C.
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L. Marshall, Eureka County, NV	S. Gomberg, DOE/Washington, D.C.
A. Johnson, Eureka County, NV	W. J. Arthur, III , DOE/OCRWM
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T. Story, NV Congressional Delegation	M. Mason, BSC
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S. Kraft, NEI

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P. Johnson, Citizen Alert

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J. Williams, DOE/Washington, DC

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S. Rayborn, Sen. Reid's Office

L. Lehman, T-REG, Inc.

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L. Desell, RW/DOE

R. List, Esmeralda County

D. Curran, Harmon, Curran, Spielberg & Eisenberg, L.L.P.

M. Williams

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If you have any questions regarding this matter, please contact Albert Wong, of my staff, at (301) 415-7843 or by e-mail at [axw2@nrc.gov](mailto:axw2@nrc.gov).

Sincerely,

/RA/

Jack Davis, Deputy Director  
Division of High-Level Waste Repository Safety  
Office of Nuclear Material Safety  
and Safeguards

Enclosure: NRC Staff Feedback on DOE's  
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cc: See attached list.

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