



Department of Energy
Office of Civilian Radioactive Waste Management
Yucca Mountain Site Characterization Office
P.O. Box 364629
North Las Vegas, NV 89036-8629

QA: N/A

SEP 27 2002

OVERNIGHT MAIL

Janet R. Schlueter, Chief
High-Level Waste Branch
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards
U.S. Nuclear Regulatory Commission
Two White Flint North
Rockville, MD 20852

**TRANSMITTAL OF REPORT ADDRESSING KEY TECHNICAL ISSUE (KTI)
AGREEMENT CONTAINER LIFE AND SOURCE TERM (CLST) 5.05**

Reference: Ltr, Schlueter to Brocoum, dtd 2/14/02

This letter transmits a report entitled *KTI Letter Report Agreement CLST 5.05, Revision 02*, which provides information to satisfy the subject KTI agreement. This KTI agreement states:

CLST 5.05: "Provide information on how the increase in the radiation fields due to the criticality event affects the consequence evaluation because of increased radiolysis inside the waste package and at the surfaces of nearby waste packages or demonstrate that the current corrosion and dissolution models encompass the range of chemical conditions and corrosion potentials that would result from this increase in radiolysis. DOE stated that the preliminary assessment (calculation) of radiolysis effects from a criticality event will be available to the NRC during February 2001. The final assessment of these conditions will be available to NRC prior to LA."

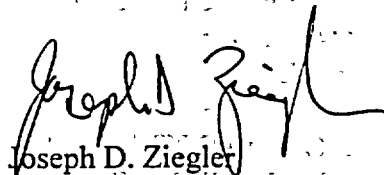
In the enclosure the U.S. Department of Energy (DOE) presents information pertaining to a CLST KTI agreement on criticality. CLST 5.05 was made before promulgation of the U.S. Nuclear Regulatory Commission's (NRC) final regulation that allows screening of low probability events including criticality [10 CFR 63.114 (d)], and that specifies a standard of reasonable expectation (10 CFR 63.304). The enclosure references preliminary scoping evaluations that indicate that criticality events (for all waste forms) will be screened from the performance assessments on the basis of low probability (i.e., less than one chance in 10,000 of occurring over 10,000 years). For the License Application, DOE plans to demonstrate compliance with 10 CFR 63.114 (d), and therefore, based on the preliminary scoping

NM 5507
WMI

SEP 27 2002

evaluations, criticality would be screened from further evaluation and no consequence evaluations would be required. If screening of criticality cannot be demonstrated in accordance with 10 CFR 63.114 (d), then criticality consequence evaluations including radiolytic effects would be performed. Therefore, DOE considers CLST 5.05 and the additional questions of the reference letter to be fully addressed by the enclosed information and pending review and acceptance by the NRC, the agreement and additional questions should be closed.

There are no new regulatory commitments in the body or the enclosure to this letter. Please direct any questions concerning this letter and its enclosure to Timothy C. Gunter at (702) 794-1343 or Paige R.Z. Russell at (702) 794-1315.



Joseph D. Ziegler
Acting Assistant Manager, Office of
Licensing and Regulatory Compliance

OL&RC:TCG-1839

Enclosure:

*KTI Letter Report Agreement CLST 5.05,
Revision 02*

cc w/encl:

T. E. Bloomer, NRC, Rockville, MD
D. D. Chamberlain, NRC, Arlington, TX
R. M. Latta, NRC, Las Vegas, NV
D. S. Rom, NRC, Rockville, MD
H. J. Larson, ACNW, Rockville, MD
Budhi Sagar, CNWRA, San Antonio, TX
W. C. Patrick, CNWRA, San Antonio, TX
J. R. Egan, Egan & Associates, McLean, VA
J. H. Kessler, EPRI, Palo Alto, CA
Steve Kraft, NEI, Washington, DC
W. D. Barnard, N.WTRB, Arlington, VA
R. R. Loux, State of Nevada, Carson City, NV
Marjorie Paslov Thomas, State of Nevada, Carson City, NV
Alan Kalt, Churchill County, Fallon, NV
Irene Navis, Clark County, Las Vegas, NV
George McCorkell, Esmeralda County, Goldfield, NV
Leonard Fiorenzi, Eureka County, Eureka, NV
Andrew Remus, Inyo County, Independence, CA
Michael King, Inyo County, Edmonds, WA

SEP 27 2002

cc w/encl: (continued)

Mickey Yarbrow, Lander County, Battle Mountain, NV
Lola Stark, Lincoln County, Caliente, NV
Arlo Funk, Mineral County, Hawthorne, NV
L. W. Bradshaw, Nye County, Pahrump, NV
David Chavez, Nye County, Tonopah, NV
Josie Larson, White Pine County, Ely, NV
R. I. Holden, National Congress of American Indians, Washington, DC
Allen Ambler, Nevada Indian Environmental Coalition, Fallon, NV
CMS Coordinator, BSC, Las Vegas, NV
OL&RC Library
Records Processing Center = "21"

cc w/o encl:

C. W. Reamer, NRC, Rockville, MD
L. L. Campbell, NRC, Rockville, MD
N. K. Stablein, NRC, Rockville, MD
S. L. Wastler, NRC, Rockville, MD
Margaret Chu, DOE/HQ (RW-1), FORS
R. A. Milner, DOE/HQ (RW-2), FORS
A. B. Brownstein, DOE/HQ (RW-52), FORS
N. H. Slater-Thompson, DOE/HQ (RW-52), FORS
R. B. Murthy, DOE/OQA (RW-3), Las Vegas, NV
Richard Goffi, BAH, Washington, DC
Donald Beckman, BSC, Las Vegas, NV
S. J. Cereghino, BSC, Las Vegas, NV
N. H. Williams, BSC, Las Vegas, NV
R. B. Bradbury, MTS, Las Vegas, NV
R. P. Gamble, MTS, Las Vegas, NV
R. C. Murray, MTS, Las Vegas, NV
R. D. Rogers, MTS, Las Vegas, NV
E. P. Opelski, NQS, Las Vegas, NV
J. R. Dyer, DOE/YMSCO, Las Vegas, NV
D. G. Horton, DOE/YMSCO, Las Vegas, NV
W. J. Boyle, DOE/YMSCO, Las Vegas, NV
T. C. Gunter, DOE/YMSCO, Las Vegas, NV
C. L. Hanlon, DOE/YMSCO, Las Vegas, NV
D. C. Haught, DOE/YMSCO, Las Vegas, NV
G. W. Hellstrom, DOE/YMSCO, Las Vegas, NV
S. P. Mellington, DOE/YMSCO, Las Vegas, NV
C. M. Newbury, DOE/YMSCO, Las Vegas, NV
P. R.Z. Russell, DOE/YMSCO, Las Vegas, NV

cc w/o encl: (continued)

- G. L. Smith, DOE/YMSCO, Las Vegas, NV
- R. E. Spence, DOE/YMSCO, Las Vegas, NV
- J. D. Ziegler, DOE/YMSCO, Las Vegas, NV
- C. A. Kouts, DOE/YMSCO (RW-2), FORS
- R. N. Wells, DOE/YMSCO (RW-60), Las Vegas, NV