



**Department of Energy**  
Office of Civilian Radioactive Waste Management  
Office of Repository Development  
1551 Hillshire Drive  
Las Vegas, NV 89134-6321

QA: N/A  
Project No. WM-00011

**JUN 24 2004**

OVERNIGHT MAIL

**ATTN: Document Control Desk**  
Director, Division of High-Level Waste  
Repository Safety  
U.S. Nuclear Regulatory Commission  
11555 Rockville Pike  
Rockville, MD 20852-2738

TRANSMITTAL OF APPENDICES O, P, U AND V, *TECHNICAL BASIS DOCUMENT NO. 6: WASTE PACKAGE AND DRIP SHIELD CORROSION*, REVISION 01, ADDRESSING KEY TECHNICAL ISSUE (KTI) AGREEMENTS RELATED TO CONTAINER LIFE AND SOURCE TERM (CLST) 1.03, 1.10, 1.11, AND 6.01, AND PRECLOSURE SAFETY (PRE) 7.05

Reference: Ltr, Ziegler to Chief, High-Level Waste Branch (NRC), dtd 12/9/03  
(Transmittal of Report TBDoc No. 6: Waste Package and Drip Shield Corrosion Addressing KTI Agreements Related to CLST and RDTME)

This letter transmits Appendices O, P, U and V (enclosures 1, 2, 3 and 4) of the *Technical Basis Document No. 6: Waste Package And Drip Shield Corrosion*, Revision 01, that was previously provided in the referenced letter. Also, a compact disk (CD) of the appendices is provided in Enclosure 5.

The CD files are in pdf format and publicly available. The Appendix O file is 1,393 KB, and dated 06/18/04. The Appendix P file is 424 KB, and dated 06/18/04. The Appendix U file is 773 KB, and dated 06/18/04. The Appendix V file is 1,054 KB, and dated 06/18/04.

The Technical Basis Document contains a summary of the current conceptual understanding of the degradation modes of the waste package and drip shield materials and provides the context within which individual KTI agreements are related to the long-term material behavior. Appendices A – H were submitted as part of the referenced letter. Additional appendices will be transmitted under separate cover letters.

Umsso7

JUN 24 2004

Appendix O, Critical and Corrosion Potentials for Alloy 22, provides a direct response to CLST 1.10 and 1.11. Appendix P, Waste Package: Corrosion of Titanium Grade 7, provides a direct response to CLST 6.01. Appendix U, Waste Package: Mechanical Properties of Alloy 22 Welds, provides a direct response to PRE 7.05. Appendix V, Waste Package - Corrosion Rate Measurements on Alloy 22, provides a direct response to CLST 1.03.

The U.S. Department of Energy considers the KTI agreements CLST 1.03, CLST 1.10, CLST 1.11, CLST 6.01, and PRE 7.05 to be addressed, and pending review and acceptance by the U.S. Nuclear Regulatory Commission, they should be closed.

There are no new regulatory commitments in the body or the enclosures to this letter. Please direct any questions concerning this letter and its enclosures to either David C. Haught at (702) 794-5474 or e-mail at david\_haught@ymp.gov, or Paige R.Z. Russell at (702) 794-1315 or e-mail at paige\_russell@ymp.gov.

  
Joseph D. Ziegler, Director  
Office of License Application & Strategy

OLA&S:DCH-1496

Enclosures:

1. Appendix O, Critical and Corrosion Potentials for Alloy 22  
(Response to CLST 1.10 and 1.11)
2. Appendix P, Waste Package: Corrosion of Titanium Grade 7  
(Response to CLST 6.01)
3. Appendix U, Waste Package: Mechanical Properties of Alloy 22 Welds  
(Response to PRE 7.05)
4. Appendix V, Waste Package - Corrosion Rate Measurements on Alloy 22  
(Response to CLST 1.03)
5. CD - Appendices O, P, U and V of Technical Basis Document No. 6: Waste Package and Drip Shield Corrosion

JUN 24 2004

cc w/encls 1, 2, 3, 4 and 5:

B. J. Garrick, ACNW, Rockville, MD  
W. C. Patrick, CNWRA, San Antonio, TX  
W. D. Barnard, NWTRB, Arlington, VA

cc w/encl 5:

D. D. Chamberlain, NRC, Arlington, TX  
G. P. Hatchett, NRC, Rockville, MD  
R. M. Latta, NRC, Las Vegas, NV  
J. D. Parrott, NRC, Las Vegas, NV  
D. B. Spitzberg, NRC, Arlington, TX  
H. J. Larson, ACNW, Rockville, MD  
Budhi Sagar, CNWRA, San Antonio, TX  
J. R. Egan, Egan & Associates, McLean, VA  
J. H. Kessler, EPRI, Charlotte, NC  
M. J. Apted, Monitor Scientific, LLC, Denver, CO  
Rod McCullum, NEI, Washington, DC  
R. R. Loux, State of Nevada, Carson City, NV  
Pat Guinan, 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  
Michael King, Inyo County, Edmonds, WA  
Andrew Remus, Inyo County, Independence, CA  
Mickey Yarbrow, Lander County, Battle Mountain, NV  
Spencer Hafen, Lincoln County, Pioche, NV  
Linda Mathias, Mineral County, Hawthorne, NV  
L. W. Bradshaw, Nye County, Pahrump, NV  
Mike Simon, White Pine County, Ely, NV  
R. I. Holden, National Congress of American Indians, Washington, DC

cc w/o encls:

A. C. Campbell, NRC, Rockville, MD  
L. L. Campbell, NRC, Rockville, MD  
N. K. Stablein, NRC, Rockville, MD