Scientific Analysis/Calculation Error Resolution Document

Complete only applicable items.

QA: QA
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INITIATION

1. Originator:	2. Date: 19 03PM 03/19/07 March 17, 2008	3. ERD No.
Kevin G. Mon		ANL-DSD-MD-000001 ERD01

4. Document Identifier:	5. Document Title:
ANL-DSD-MD-000001 REV 01	Aqueous Corrosion Rates for Waste Package Materials

6. Description of and Justification for Change (Identify applicable CRs and TBVs):

Description of Change:

1. During evaluation of CR 10388, it was found that ANL-DSD-MD-000001 REV 01 indicates that Titanium Grade 24 "is used as the structural material in the design of the drip shield" instead of Titanium Grade 29. The change consists of adding a note to the reader that

   "Although this document indicates that Titanium Grade 24 is used as the structural material in the design of the drip shield, Titanium Grade 29 is the drip shield structural material. Corrosion degradation of Titanium Grade 29 is discussed in *General Corrosion and Localized Corrosion of the Drip Shield* (SNL 2007 [DIRS 180778]). Titanium Grade 29 is welded to the Titanium Grade 7 drip shield plate material with Titanium Grade 28 filler metal. In *Hydrogen-Induced Cracking of the Drip Shield,* it is assumed that the general and localized corrosion resistance of Titanium Grade 28 is the same as, if not higher than, that of Titanium Grade 29 (SNL 2007 [DIRS 181339], Assumption 5.1[a])."

180778 SNL (Sandia National Laboratories) 2007. *General Corrosion and Localized Corrosion of the Drip Shield.* ANL-EBS-MD-000004 REV 02 ADD 01. Las Vegas, Nevada: Sandia National Laboratories. ACC: DOC.20060427.0002; DOC.20070807.0004; DOC.20071003.0019.

181339 SNL (Sandia National Laboratories) 2007. *Hydrogen-Induced Cracking of the Drip Shield.* ANL-EBS-MD-000006 REV 02 ADD 01. Las Vegas, Nevada: Sandia National Laboratories. ACC: DOC.20060306.0007; DOC.20070807.0005.

Identification/Justification:

During evaluation of CR 10388, it was found that ANL-DSD-MD-000001 REV 01 indicates that Titanium Grade 24 "is used as the structural material in the design of the drip shield" instead of Titanium Grade 29. Clarification should be provided as to which materials are used in drip shield fabrication.

This change in reference has no impact on the conclusions of or the outputs from ANL-DSD-MD-000001 REV 01. The following controlled documents which use ANL-DSD-MD-000001 REV 00 ACN 01 as direct input have been evaluated:

ANL-DS0-NU-000001 Rev. 00 uses corrosion rates of zircaloy from Section 6.2.5 of ANL-DSD-MD-000001. ANL-DS0-NU-000001 Rev. 00 is not impacted by this ERD because this ERD does not impact the output corrosion rates of Zircaloy in ANL-DSD-MD-000001.

000-00C-TED0-00300-000-00A ECN 2 has had an ERD issued, as part of the resolution of CR 10388, in which the input from ANL-DSD-MD-000001, general corrosion rates of Titanium Grade 24, are classified as indirect inputs.

This ERD is not relevant to safety or waste isolation and does not impact the results of the Safety Analysis Report or any other document cited above.

CONCURRENCE

	Printed Name	Signature	Date
7. Checker	Gerald M. Gordon	Gerald M Gordon	3/19/08
8. QCS/QA Reviewer	Brian Mitcheltree	Brian Mitcheltree	3/19/08

APPROVAL

9. Originator	Kevin G. Mon	Kevin Mon	3/19/08
10. Responsible Manager	Paul R. Dixon	Paul R. Dixon	3-20-08