



Model Error Resolution Document

QA: QA
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Complete only applicable items.

INITIATION

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| 1. Originator: Gerald Gordon | 2. Date: 2/25/2008 | 3. ERD No. ANL-EBS-MD-000005 ERD01 | |
| 4. Document Identifier: ANL-EBS-MD-000005 REV 04 | 5. Document Title: Stress Corrosion Cracking of Waste Package Outer Barrier and Drip Shield Materials | | |
| 6. Description of and Justification for Change (Identify applicable CRs and TBVs): | | | |
| <u>Description of Changes:</u> | | | |
| In regard to CR 9979: | | | |
| <ol style="list-style-type: none"> 1. In Sections 6.8.7.2 (pg 6-188) change reference from "Andresen 2005 [DIRS 173867], Figures 6-3 to 6-6 and 6-13)" to "DTN: MO0707SCCIGMER.000 ([DIRS 182202]), Figures 6-3 to 6-6 and 6-13)" 2. In Section 6.8.7.3 (pg 6-191), delete reference to "Andresen (2005 [DIRS 173867]), and." 3. In Section 9.1, remove reference to DIRS 173867 (Andresen, P.L. 2005. Stress Corrosion Crack Initiation & Growth Measurements in Environments Relevant to High Level Nuclear Waste Packages. Schenectady, New York: General Electric Global Research Center. ACC: MOL.20050608.0317). | | | |
| In regard to CR 11677: | | | |
| <ol style="list-style-type: none"> 1. The text in Section 6.5.6.2, p. 6-102, "Therefore, the uncertainty in the stress profiles should be represented by a truncated (at $\pm 3\sigma$) normal distribution with the mean equal to the at-temperature yield strength and the σ equal to 5% of the at-temperature yield strength." is replaced with "Therefore, uncertainty in the stress profiles is represented by a scaling factor sampled from a truncated (at $\pm 3\sigma$) normal distribution with a mean of zero and a standard deviation of 5% of the yield strength (see the next section)." | | | |
| <u>Identification/Justification:</u> | | | |
| In regard to CR 9979: | | | |
| <p>CR 9979 identified an opportunity to improve the management and traceability of data. The issue in CR 9979 was that some qualified vendor data was in RISweb and was not in TDMS. Thus there is a risk of losing traceability as future changes to the data set occur from the vendor. In ANL-EBS-MD-000005 Rev 004, the Q-reference from RISweb, Andresen 2005 [DIRS 173867] was cited for titanium alloy creep data. However, in response to CR 9979, the reference for this data was changed to DTN: MO0707SCCIGMER.000 ([DIRS 182202]), Figures 6-3 to 6-6 and 6-13).</p> <p>ANL-EBS-MD-000005 Rev 004 incorrectly cited Figures 6-3 to 6-6 and 6-13 in the GE report, "Stress Corrosion Crack Initiation & Growth Measurements in Environments Relevant to High Level Nuclear Waste Packages (Quarterly Report)" (ACC: MOL.20050608.0317, DIRS: 173867). The referenced figure numbers (Figures 6-3 to 6-6 and 6-13) are not included in GE's Quarterly Report, but are in the replacement reference, MO0707SCCIGMER.000 [DIRS 182202].</p> | | | |
| CONCURRENCE | | | |
| | Printed Name | Signature | Date |
| 7. Checker | GOPAL DE | | 03/06/2008 |
| 8. QCS/QA Reviewer | Brian Mitchell | | 3/6/08 |
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| 9. Originator | Gerald M. Gordon | | 3/6/08 |
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| 1. Originator: Gerald Gordon | 2. Date: 2/25/2008 | 3. ERD No. ANL-EBS-MD-000005 ERD01 |
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6. Description of and Justification for Change (Identify applicable CRs and TBVs): CONTINUED

This change in reference has no impact on the conclusions of or the outputs from ANL-EBS-MD-000005 REV 04. Therefore, there is no impact on the following documents that cite ANL-EBS-MD-000005 REV 04: ANL-DS0-NU-000001 Rev. 00, SCREENING ANALYSIS OF CRITICALITY FEATURES, EVENTS, AND PROCESSES FOR LICENSE APPLICATION; ANL-EBS-MD-000076 Rev. 00, ACN 01, ANALYSIS OF MECHANISMS FOR EARLY WASTE PACKAGE / DRIP SHIELD FAILURE; ANL-WIS-MD-000024 Rev. 01, POSTCLOSURE NUCLEAR SAFETY DESIGN BASES; ANL-WIS-PA-000001 Rev. 03, EBS RADIONUCLIDE TRANSPORT ABSTRACTION; CAL-DN0-NU-000002 Rev. 00C, WASTE PACKAGE FLOODING PROBABILITY EVALUATION; MDL-WIS-PA-000003 Rev. 03; MDL-WIS-PA-000005 Rev. 00, Miscld 01, TOTAL SYSTEM PERFORMANCE ASSESSMENT MODEL/ANALYSIS FOR THE LICENSE APPLICATION - Volume I; MDL-WIS-PA-000005 Rev. 00, Miscld 02, TOTAL SYSTEM PERFORMANCE ASSESSMENT MODEL/ANALYSIS FOR THE LICENSE APPLICATION - Volume II; MDL-WIS-PA-000005 Rev. 00, Miscld 03, TOTAL SYSTEM PERFORMANCE ASSESSMENT MODEL/ANALYSIS FOR THE LICENSE APPLICATION - Volume III; TDR-MGR-MD-000056 Rev. 00, PERFORMANCE CONFIRMATION ANNUAL REPORT FISCAL YEAR 2007; TDR-PCS-SE-000001 Rev. 05, Addendum 01, PERFORMANCE CONFIRMATION PLAN; TDR-WIS-PA-000014 Rev. 00, TSPA INFORMATION PACKAGE FOR THE DRAFT SEIS' ANL-WIS-MD-000027 Rev. 00, FEATURES, EVENTS, AND PROCESSES FOR THE TOTAL SYSTEM PERFORMANCE ASSESSMENT: ANALYSES; LASAR-2.03.06, LA SAFETY ANALYSIS REPORT SECTION 2.3.6; MDL-WIS-PA-000005 Rev. 00, Addendum 01, TOTAL SYSTEM PERFORMANCE ASSESSMENT MODEL/ANALYSIS FOR THE LICENSE APPLICATION.

Further, the change in reference as a result of this ERD has no impact on the Safety Analysis Report as the correct reference is cited therein. This change in reference has no impact on the TSPA-LA analyses since the results cited are not used in TSPA. Further, the results cited are correctly referenced in the ANL-EBS-MD-000005 REV 04 output DTN: MO0705CREEPSCC.000. Therefore, this change in cited reference is not relevant to safety or waste isolation and does not impact the results of the Safety Analysis Report or the Total System Performance Assessment.

In regard to CR 11677:

This clarification has no impact on the conclusions of or the outputs from ANL-EBS-MD-000005 REV 04 or on the above listed documents that cite ANL-EBS-MD-000005 REV 04. Further, as discussed in the text of CR 11677, this clarification has no impact on the Safety Analysis Report as the clarification makes the report text more consistent with the SAR text. This clarification has no impact on the TSPA-LA analyses as clarified text is included in the output of SNL 2007 [DIRS 181953] (e.g., Section 8.4 and DTN: MO0702PASTRESS.002 [DIRS 180514], file: Model Output DTN.doc, Table 8-15). Therefore, this text clarification is not relevant to safety or waste isolation and does not impact the results of the Safety Analysis Report or the Total System Performance Assessment.