

CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES NONCONFORMANCE REPORT

Project No. 20.06002.01.101.340

NCR No. 2004-04

PART 1: DESCRIPTION OF NONCONFORMANCE

Hyper Mesh, Version 3.1 is identified in the report, *MECHFAIL: A Total-system Performance Assessment Code Module for Evaluating Engineered Barrier Performance Under Mechanical Loading Conditions*, IM 20.06002.01.101.340, April 28, 2003 (Version 1) as being under TOP-018 control. Version 3.1 of Hyper Mesh is not under TOP-018 control. Version 4.0 was placed under TOP-018 control November 26, 2001 and Version 5.0 April 19, 2002.

Initiated by: Randy Folck *Randy Folck*
Action Required by: Doug Gute

Date: March 16, 2004

PART 2: PROPOSED DISPOSITION AND CORRECTIVE ACTION

Response Due Date: March 30, 2004

Disposition: *Accept as-is.*

Response Person: *Doug Gute*

Basis of Disposition: *Nodal coordinates, element node numbering, material properties, and boundary conditions that were either defined by the user or calculated by the HyperMesh program for the drip shield rock block impact models were determined to be correctly translated into an ABAQUS/Explicit input deck. The displacements and Mises stresses calculated by the ABAQUS/Explicit finite element analyses for these models were correctly translated into the HyperMesh format and graphically displayed. Correct graphical representation of the results was checked*
Action to Correct Nonconformance: *by comparing actual hard copy documentation provided by ABAQUS/Explicit for specific nodes and elements with the values displayed by HyperMesh.*

HyperMesh, Version 3.1 was placed under TOP-018 Control.

Target date for completion:

Proposed by: *Doug Gute*

Date: *Mar. 19, 2004*

PART 3: APPROVAL

Element Manager: *[Signature]*

Date: *3-19-04*

Director of QA: *[Signature]*

Date: *3-22-04*

Comments/Instructions:

PART 4: CLOSE OUT

Comments: *Hyper-mesh, v 3.1 Placed under TOP-018 Control March 26, 2004.*

Verified by: *Randy Folck* Date: *3/26/04*

Distribution:
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