

## CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES QUALITY ASSURANCE SURVEILLANCE REPORT

PROJECT NO.: 20.06002.01.031	REPORT NO.: 2004-08	PAGE _ 1 _ OF _ 1 _
SURVEILLANCE SCOPE: Mining, Geotechnical & Process Engineering activities including: Repository Design and Thermal - Mechanical Effects July 2003-March 2004		
REFERENCE DOCUMENTS: QAP-001, Scientific Notebook Control, QAP-002, Review of CNWRA Documents, Reports and Papers, QAP-004, Surveillance Control		
STARTING DATE: 05/13/04 ENDING DATE: 06/01/04 QA REPRESENTATIVE: Mark R. Ehnstrom		
PERSONS CONDUCTING TEST/EXAM/ACTIVITY: A. Chowdhury, A. Ghosh, D. Gute, B. Dasgupta, G. Ofoegbu, and G. Adams		
SATISFACTORY FINDINGS: Surveillance started with a review of Quality Requirements Application Matrix (QRAMs) applicable to the Mining, Geotechnical, & Process Engineering group. After this review a discussion was held with A. Ghosh who was substituting for the element Manger A. Chowdhury. (A discussion with A. Chowdhury was performed at a later date.) The discussion with A. Ghosh identified individual areas of responsibility and activities within the group.		
Mining, Geotechnical & Process Engineering Deliverable Reviews - The following documents were reviewed and determined to be compliant with QAP-002 requirements:		
<ul> <li>Diablo Canyon Independent Spent Fuel Storage Installation Safety Evaluation Report, October 2003</li> </ul>		
• Predecisional Technical Evaluation of the Review Process for Fuel Cycle Facility Integrated Safety Analysis, October 2003		
<ul> <li>Assessments of Appropriateness of Level of design Details for Heating, Ventilation, and Air-conditioning system for Dry Transfer facility 1 of the Proposed Repository at Yucca Mountain, November 2003</li> </ul>		
Idaho Spent Fuel facility safety Evaluation Report, January 2004		
Software Status and Activity:		
The surveillance found that multiple codes are being used by group members. Codes currently used include ABAQUS, UDEC, FLAC, LSDYNA, HyperMesh, PCSA Tool, ESP/CSP/ESPCB StreamAnalyzer, and THERMOCALC. These codes are listed on the CNWRA Master Directory of Scientific & Engineering Software. Current acceptance testing and testing for closeout of open Software Change Requests is continuing on PCSA Tool.		
Scientific Notebooks:		
Discussions were also held with the individuals on the importance of closing scientific notebooks which are not currently being actively used.		
Consultants/Subcontractors:		
Norm Eisenburg was used as an outside consultant by the group. The Professional Personnel Qualification files for this individual along with the files for SwRI employees D. Pomerening, S. Green, A. Garabedian, Fern Thomassy, and M Lesher were reviewed. The review found the files to be complete and accurate.		
UNSATISFACTORY FINDINGS: None NONCONFORMANCE REPORT NO.: N/A CORRECTIVE ACTION REQUEST NO.:N/A		
ATTACHMENTS: None		
RECOMMENDATIONS/ACTIONS: None		
APPROVED: LOSul  CENTER DIRECTOR OF QUALITY ASSURANCE  DATE: 6/2/2004	B. Dasgupta, G. Ofoegbu ELEMENT MANAGER: A	TORS:A. Ghosh, D. Gute, ı, G. Adams
7	B. Sagar	