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CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES QUALITY ASSURANCE SURVEILLANCE REPORT

PROJECT NO: 20-1402-171	REPORT NO: 2002-01	PAGE <u>1</u> OF <u>1</u>		
SURVEILLANCE SCOPE: Development and control of software				
REFERENCE DOCUMENTS: TOP-018, Development and Control of Scientific and Engineering Software				
STARTING DATE: December 17, 2001 <i>Amey Patel</i>		ENDING DATE: January 18, 2002		
QA REPRESENTATIVE: R. Folck/B. Mabrito				
PERSONS CONDUCTING TEST/EXAM/ACTIVITY: R. Janetzke, B. Mabrito, S. Painter, M. Ehnstrom, B. Dasgupta, A. Lozano, D. Stead, B. Winfrey, D. Farrell, C. Manepally, D. Waiting, M. Necsoiu, D. Turner, D. Gute, P. LaPlante, H. McKague				
SATISFACTORY FINDINGS: <p>Reviewed to varying degree, development and/or testing activities and associated documentation for the following acquired or developed CNWRA codes:</p> <table style="width: 100%;"> <tr> <td style="vertical-align: top;"> <ul style="list-style-type: none"> • Crystal Ball 2000, Version 5.1 • TPA Version 4.1.j • Abaqus, Version 6.1 • Earth Vision 5.1 • NRC-WVDP-GIS, Version 1.0 </td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> • Olympus, Version 1.0 • PCSA Tools, Version 1.0, Beta2 • Pest, Version <i>TBD Gen 11/8/2002</i> • Child.X, Version <i>TBD Gen 1/18/2002</i> </td> </tr> </table> <p>Documentation and activities reviewed were found to comply with TOP-018 requirements.</p>			<ul style="list-style-type: none"> • Crystal Ball 2000, Version 5.1 • TPA Version 4.1.j • Abaqus, Version 6.1 • Earth Vision 5.1 • NRC-WVDP-GIS, Version 1.0 	<ul style="list-style-type: none"> • Olympus, Version 1.0 • PCSA Tools, Version 1.0, Beta2 • Pest, Version <i>TBD Gen 11/8/2002</i> • Child.X, Version <i>TBD Gen 1/18/2002</i>
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UNSATISFACTORY FINDINGS: <p>One discrepancy corrected during the course of the surveillance was that development work on Olympus, Version 1.0 was being performed without a Software Development Plan or waiver. A waiver was issued January 18, 2002.</p>				
NONCONFORMANCE REPORT NO: None				
ATTACHMENTS: None				
RECOMMENDATIONS/ACTIONS: <ul style="list-style-type: none"> • For the PCSA Tool consider updating the Software Development Plan to address Beta2, risk issues, and development of SVTP and SVTR. • Consider performing an audit of the software development organization for acquired software if the organization has a quality assurance program and the cost of the audit is determined to be less expensive than doing software validation in-house. • Maintain interim changes to the Software Development Plan in software development files until a sufficient number of changes are accumulated to warrant a change to the Software Development Plan. 				
APPROVED: <i>[Signature]</i> <div style="text-align: center;">CENTER DIRECTOR OF QUALITY ASSURANCE</div> DATE: <u>1/18/2002</u>	DISTRIBUTION: ORIGINAL - CENTER QA DIRECTOR / QA Records ORIGINATOR - R. Folck PRINCIPAL INVESTIGATORS (above) ELEMENT MANAGERS B. Sagar, H. Garcia, M. Ehnstrom			