

Appendix D

NUCLEAR WASTE MANAGEMENT PROCEDURE <small>Sandia National Laboratories</small>	<h2 style="margin: 0;">Verification and Validation Plan Criteria</h2>	Form Number: NP 19-1-3 Page 1 of 1
<p>1. Software Name: _____</p> <p>2. Software Version: _____</p> <p>3. Document Version: _____</p> <p>4. ERMS #: _____</p> <p>Prior to sign-off of the VVP, all items shall be appropriately addressed by the code sponsor so that "Yes" or "N/A" may be checked. Include this form as part of the VVP.</p>		
<p>5. Sufficient Test Cases <input type="checkbox"/> Yes Does the VVP identify sufficient test cases and acceptance criteria to ensure the final software and end product satisfies the requirements of the RD? (Check Yes if peer review is identified to fulfill the validation requirements)</p> <p>6. Adequacy of Test Cases <input type="checkbox"/> Yes Do the test cases demonstrate that the code adequately performs all intended functions and produces valid results for problems encompassing the range of permitted usage?</p> <p>7. Operational Control <input type="checkbox"/> Yes <input type="checkbox"/> N/A If the software is used for operational control, do tests demonstrate required performance over the range of operation of the controlled function or process?</p> <p>8. Unintended Functions <input type="checkbox"/> Yes <input type="checkbox"/> N/A Do the test cases show that the code does not perform any unintended function that either by itself or in combination with other functions can degrade the intended outcomes of the software?</p> <p>9. Test Result Validation. (check one or more, where applicable as based on code functionality) The test results will be compared to the following: - hand calculations, <input type="checkbox"/> Yes <input type="checkbox"/> N/A - manual inspection, <input type="checkbox"/> Yes <input type="checkbox"/> N/A - calculations using comparable proven problems, <input type="checkbox"/> Yes <input type="checkbox"/> N/A - empirical data and information from confirmed published data and correlation's and/or technical literature, <input type="checkbox"/> Yes <input type="checkbox"/> N/A - other validated software of similar purpose, <input type="checkbox"/> Yes <input type="checkbox"/> N/A - other independent software of similar purpose. <input type="checkbox"/> Yes <input type="checkbox"/> N/A A documented peer review will be performed. <input type="checkbox"/> Yes <input type="checkbox"/> N/A Do the test cases describe how the code results will be validated? <input type="checkbox"/> Yes</p> <p>10. Does the VVP specify the following, where applicable as based on code functionality?</p> <p>(a) required tests and test sequence <input type="checkbox"/> Yes <input type="checkbox"/> N/A (b) required ranges of input parameters <input type="checkbox"/> Yes <input type="checkbox"/> N/A (c) identification of the stages at which testing is required <input type="checkbox"/> Yes <input type="checkbox"/> N/A (d) criteria for establishing test cases <input type="checkbox"/> Yes <input type="checkbox"/> N/A (e) requirements for testing logic branches <input type="checkbox"/> Yes <input type="checkbox"/> N/A (f) requirements for hardware integration <input type="checkbox"/> Yes <input type="checkbox"/> N/A (g) anticipated output values <input type="checkbox"/> Yes <input type="checkbox"/> N/A (h) acceptance criteria <input type="checkbox"/> Yes <input type="checkbox"/> N/A</p> <p>11. Installation and Regression Testing <input type="checkbox"/> Yes Are test cases which are suitable for installation testing and regression testing identified in the set of verification and validation test cases?</p>		
12.	_____	_____
	Code Team/Sponsor's Name (print)	Signature Date
13.	_____	_____
	Technical Reviewer's Name (print)	Signature Date
14.	_____	_____
	QA Reviewer's Name (print)	Signature Date
15.	_____	_____
	Responsible Manager's Name (print)	Signature Date
16.	_____	_____
	SCM Coordinator's Name (print)	Signature Date