



General Electric Company  
115 Cortland Avenue, San Jose, CA 95128

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U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Attention: Robert C. Pierson, Director  
Standardization and Non-Power Reactor Project Directorate

Subject: **GE Response to Agenda Item 11 Discussed During the GE/NRC  
Reactor Systems Branch Meeting on November 20-21, 1991**

Enclosed are thirty-four (34) copies of the GE response to the subject discussion item pertaining to credit for non-safety grade equipment.

Sincerely,

R. C. Stirn, Acting Manager  
Regulatory and Analysis Services  
M/C 444, (408) 925-6948

cc: F. A. Ross (DOE)  
N. D. Fletcher (DOE)  
C. Poslusny, Jr. (NRC)  
G. Thomas (NRC)  
R. C. Berglund (GE)  
J. F. Quirk (GE)

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**NON-SAFETY RELATED TRANSIENT MITIGATION FUNCTIONS  
EQUIPMENT ATTRIBUTES TO ENSURE OPERABILITY**

KEY EQUIPMENT ATTRIBUTES	RECIRCULATION PUMP TRIP FUNCTION	STEAM BYPASS FUNCTION	LEVEL 8 TRIP FUNCTION
Seismic	<ul style="list-style-type: none"> <li>Seismic Qualification is not required. This is consistent with requirements for other non-safety related equipment which perform mitigation functions (refer to Table A-1 of NEDE-31096-P-A, "Anticipated Transients without Scram, Response to NRC ATWS Rule, 10CFR50.62").</li> <li>Equipment enclosures and anchoring shall be designed to maintain integrity during an OBE to preclude damage to safety-related equipment.</li> <li>Power supply equipment and control components have been shown through operating experience to remain operable following an OBE.</li> </ul>	<ul style="list-style-type: none"> <li>Seismic Qualification is not required</li> <li>Equipment enclosures and anchoring shall be designed to maintain integrity during an OBE to preclude damage to safety-related equipment.</li> <li>Steam bypass equipment and control components have been shown through operating experience to remain operable following an OBE.</li> </ul>	<ul style="list-style-type: none"> <li>Seismic Qualification is not required</li> <li>Equipment enclosures and anchoring shall be designed to maintain integrity during an OBE to preclude damage to safety-related equipment.</li> <li>Turbine stop valves, power supply equipment, and Level 8 trip instrumentation have been shown through operating experience to remain operable following an OBE.</li> </ul>
Periodic Testing	<ul style="list-style-type: none"> <li>Surveillance testing on RPT instrumentation required by Tech Specs</li> </ul>	<ul style="list-style-type: none"> <li>Surveillance testing on bypass valve opening response time required by Tech Specs</li> </ul>	<ul style="list-style-type: none"> <li>Surveillance testing on Level 8 trip instrumentation required by Tech Specs</li> </ul>
Quality Assurance	<ul style="list-style-type: none"> <li>QA program shall comply with the guidance provided in Generic NRC Letter 85-06, "Quality Assurance Guidance for ATWS Equipment that is not Safety-Related"</li> </ul>	<ul style="list-style-type: none"> <li>QA program shall comply with the guidance provided in Generic NRC Letter 85-06</li> </ul>	<ul style="list-style-type: none"> <li>QA program shall comply with the guidance provided in Generic NRC Letter 85-06</li> </ul>

**NON-SAFETY RELATED TRANSIENT MITIGATION FUNCTIONS  
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KEY EQUIPMENT ATTRIBUTES	RECIRCULATION PUMP TRIP FUNCTION	STEAM BYPASS FUNCTION	LEVEL 8 TRIP FUNCTION
<b>Redundancy</b>	<ul style="list-style-type: none"> <li>• Triplicated controller and communications</li> <li>• Four output demand signal voters (one for each RIP tripped)</li> <li>• Four RIP adjustable speed drives (one for each RIP tripped)</li> </ul>	<ul style="list-style-type: none"> <li>• Triplicated controller and communications</li> <li>• Three steam bypass valves</li> <li>• Three fast-open solenoid valves (one for each bypass valve)</li> </ul>	<ul style="list-style-type: none"> <li>• Triplicated level controller and communications for generating trip command</li> <li>• Triplicated turbine Electrohydraulic Control (EHC) and four turbine stop valves for main turbine trip function</li> <li>• Three reactor feedpumps adjustable speed drives for feedwater trip function</li> </ul>
<b>Isolation</b>	<ul style="list-style-type: none"> <li>• Communication between redundant controller channels through fiber optic links</li> </ul>	<ul style="list-style-type: none"> <li>• Communication between redundant controller channels through fiber optic links</li> </ul>	<ul style="list-style-type: none"> <li>• Communication between redundant controller channels through fiber optic links</li> </ul>
<b>Environmental</b>	<ul style="list-style-type: none"> <li>• Equipment shall meet the environmental conditions associated with Plant Normal Operating Conditions (i.e., not Design Basis Accident conditions) as specified in Appendix 3I of the ABWR SSAR</li> </ul>	<ul style="list-style-type: none"> <li>• Equipment shall meet the environmental conditions associated with Plant Normal Operating Conditions, as specified in Appendix 3I</li> </ul>	<ul style="list-style-type: none"> <li>• Equipment shall meet the environmental conditions associated with Plant Normal Operating Conditions, as specified in Appendix 3I</li> </ul>