

### Treatment of PRA Uncertainties

To support risk-informed regulatory activities, how uncertainties associated with PRA should be factored into the risk-informed decisionmaking process needs to be addressed. This guidance is provided in NUREG-1855 (“Guidance on the Treatment of Uncertainties Associated with PRAs in Risk-Informed Decisionmaking”). This NUREG also provides guidance on how to meet the ASME/ANS PRA standard requirements for addressing uncertainties in the PRA model itself.

In initiating this effort, NRC recognized that the Electric Power Research Institute (EPRI) also was performing work in this area with similar objectives. Both NRC and EPRI believed a collaborative effort to have technical agreement and to minimize duplication of effort would be more effective and efficient. NRC and EPRI have worked together under a Memorandum of Understanding and, as such, the two efforts complement each other.

The status of these two efforts is provided below.

NRC Effort -- NUREG 1855			EPRI Effort		
Document	Scope	Date Published	Document	Scope	Date Published
NUREG 1855, (“Guidance on the Treatment of Uncertainties Associated with PRAs in Risk-Informed Decisionmaking”).	For operating reactors <ul style="list-style-type: none"> <li>• At-power</li> <li>• Internal events</li> <li>• Internal flood</li> <li>• CDF and LERF</li> </ul>	March 2009	Electric Power Research Institute, EPRI TR 1016737 (“Treatment of Parameter and Model Uncertainty for Probabilistic Risk Assessments”)	For operating reactors <ul style="list-style-type: none"> <li>• At-power</li> <li>• Internal events</li> <li>• Internal flood</li> <li>• CDF and LERF</li> </ul>	December 2008
NUREG 1855, Revision 1	For operating and new reactors	Draft for comment, beginning of 3rd <sup>t</sup>	EPRI TR 1016737,	For operating reactors	2011

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	<ul style="list-style-type: none"> <li>• At-power</li> <li>• Internal events</li> <li>• Internal flood</li> <li>• CDF and LERF</li> <li>• Internal fires</li> <li>• Seismic</li> <li>• LPSD</li> <li>• Level 2</li> </ul>	<p>quarter of fiscal year 2013</p> <p>Final (Revision 1) planned to be published end of calendar year 2014</p>	EPRI 2012.1026511	<ul style="list-style-type: none"> <li>• At-power</li> <li>• Internal events</li> <li>• Internal flood</li> <li>• CDF and LERF</li> <li>• Internal fires</li> <li>• Seismic</li> <li>• LPSD</li> </ul>	2013