

State-of-the-Art Reactor Consequence Analyses Potential Technical/Policy Issues

Issue	Resolution	References	Staff	Status
1. Sequence Selection Criteria: What is the appropriateness of using a criteria, and what should it be?	1) Focus on important, more likely (more realistic), events 2) Using 10^{-6} for normal scenarios; 10^{-7} for special scenarios of bypass/early containment failure	(1) ML080780154—ACRS request for Level 3 PRA benchmark (2) SOARCA NUREG-1935, Executive Summary	C. Tinkler	Complete
2. Multi-Unit Core Damage Events (Dual Unit Meltdown): What should be done with the identified internal (LOOP) and external (seismic) events that could lead to multi unit core damage?	Project has selected events that may affect multiple units, but only analyzing the accident progression and offsite consequences from one unit. The issue has been submitted into the Generic Issues Program (GIP) for follow up and resolution.	(1) ML082310587 – submission to GIP	M. Stutzke	Complete
3. Thermally-Induced Steam Generator Tube Failure: How should SOARCA handle this scenario?	Although it would screen outside the threshold, included accident scenario in study.	(1) ML09050001 – Memo from C. Tinkler (2) SOARCA NUREG-1935	C. Tinkler	Complete
4. Large Seismic Event: What if a large seismic accident scenario (1+ g's) has a frequency within our selection criteria?	None determined so far. Submitted for future study in the NRC Seismic Research Program.	(1) SOARCA NUREG-1935, Executive Summary (2) RES/DE's resolution of peer review comments	C. Tinkler J. Ake M. Stutzke	Open
5. Seismic Liquefaction How is the potential for soil liquefaction addressed for the SOARCA seismic event?			Jon Ake Jose Pires Marty Stutzke	Open
6. Direct Containment Heating: How should SOARCA handle this issue?	Research shows DCH is highly unlikely and hence not "best estimate"	(1) SOARCA NUREG-1935 (2) Best Practices NUREG/CR-7008	SNL/Tinkler	Complete

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7. Alpha Mode Failure: How should SOARCA handle this issue?	Research shows alpha mode is highly unlikely and hence not "best estimate"	(1) SOARCA NUREG-1935 (2) Best Practices NUREG/CR-7008	SNL/Tinkler	Complete
8. Interfacing Systems LOCA Break Size: What is the appropriate break size in the Surry ISLOCA analysis?	The break-size is limited by an orifice.	(1) SOARCA NUREG-1935 (2) DE input?	Schaperow	Complete
9. B.5.b Mitigative Measures: How should SOARCA handle the use of post-9/11 measures including operator actions (HRA) as defined in the EOPs and SAMGs?	Credit is given for the use of B.5.b. However, only with a qualitative assessment. The scenarios are also analyzed assuming non mitigation (unmitigated).	(1) ML080420098— Mitigative Measures Assessment (Project paper) (2) SOARCA NUREG-1935, Executive Summary	Schaperow	Complete
10. Seismic Qualification of Mitigation Systems: What is the operability of mitigation systems in the analyses of seismic initiated events?	Analysis and technical guidance by RES/DE	(1)ML073020057—Tech guidance request (2)Response - (Herman Graves to give reference)	Schaperow	Complete?
11. Containment Leakage Analysis From Seismic Event: How should SOARCA handle the effect of an earthquake on the containment leakage?	Analysis completed by RES/DE.	ML??	Schaperow J. Pires Syed Ali	Open
12. Distance Truncation: What population area should be included in the analysis?	Commission approved staff's proposal to report offsite consequence using 0-10, 0-50, and 0-100 miles (option #6). Later, SC approved removal of 0-100 miles. Need to inform Commission about change	(1) ML080310014 — SR SECY-08-0029 Reporting Offsite Health Consequences (2) SC minutes (Sept. 2009)	S. Elkins	Open

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13. Time Truncation: What duration of time after the onset of the accident is "best estimate"?	Project uses 48-hour truncation from beginning of accident. Staff will further clarify and support the proposed justification for the assumed release duration.	(1)SC Summary (Dec 18, 2008) (2)SOARCA NUREG-1935	R. Sullivan	Open
14. Emergency Preparedness During Seismic Event: What is the effect of a seismic event on EP?	Included EP Scoping Analysis in NUREG	Sensitivity in the SOARCA NUREG-1935	R. Sullivan	Complete
15. Land Contamination & Economic Consequences: How should SOARCA handle the economic consequences?	Informed Commission that Land Contamination & Economic Consequences not be treated in SOARCA because of the current state of the economic models.	(1) ML070750217 – Memo to Commission	C. Tinkler	Complete
16. Dose Response Model: What dose response model should SOARCA analysis use?	Commission approved staff's proposal to report offsite consequence using LNT and 10mrem truncations (option #6). Staff added 620mrem (US average) & 5rem/10rem lifetime (HPS) Need to inform Commission about change	(1)ML080310014 — SECY-08-0029: Reporting Offsite Health Consequences (2)ML082560020— Commission Response	J. Mitchell	Open
17. Official Use Only Designation: Should this designation on the SOARCA report be removed?	OOU designation removed; Report is "pre-decisional" in current state (10/2009) Need to inform Commission about change	(1)SC minutes (Sept. 2009)	S. Elkins	Open
18. Uncertainty Study What are the plan, schedule and cost?	Develop project plan, schedule and cost for the uncertainty study		S. Elkins	Open

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