

## Generic RAIs – Non-Pilot Topics

No.	Topic-Generic Issue	Actions / Disposition	Ref.	Status/Comment
1	Monitoring Program (ML113210461 - Slide 11) – Closure of FAQ 59 is necessary and clarification on use of maintenance rule	FAQ 59 will address this topic.	11/18/11 Meeting ML113210461 ML113340218 ML120750108	<p>Added additional information added to Section 4.6 in LAR Template (Rev. 1N). Mirrors RAI responses for Callaway and DAEC</p> <p>FAQ 59, Rev. 5 sent to NRC 02/10/12. Technical agreement reached on 2/16/12.</p> <p>Task Force considers this issue closed. NRC agreed this issue closed 6/28/12.</p>
2	Seismic standpipes/Hose Stations (ML113210461 -Slide 12) – The NRC wants additional information on the ability to fight fires following an earthquake.	Additional dialogue with the NRC is needed on this topic.	11/18/11 Meeting ML113210461 ML113340218	<p>The exception to Section 3.6.4 is not endorsed. The NRC is asking licensees without seismic hose stations to discuss how they would fight a fire in the event of a seismic event. This seems to be in conflict with Section III. Comment Resolution on Proposed Rule in the Federal Register.</p> <p>Discussed at 4/26/12 FAQ meeting. This topic will be eliminated as a generic RAI and plant specific RAIs will be “pulled back” based on NRC discussion with legal staff. ML121370055</p> <p>Discussed at the 5/24/12 FAQ meeting. LAR template note will suggest that licensees’ (operating plants and plants with construction permits issued prior to July 1, 1976 with non-seismic standpipes and hose stations previously approved in accordance with Appendix A to BTP APCSB 9.5–1) utilize “complies via previous approval” for this Section of NPFA 805.</p> <p>Task Force considers this issue closed. NRC agreed this issue closed 6/28/12.</p>
3	Total CDF/LERF (ML113210461-Slide 13) –NRC indicated that the last sentence on Slide 13 was incorrect and the CDF and LERF values should be E-06 and E-07, respectively.	Guidance on this topic is already in the LAR template (Rev. 1k), Section W.2	11/18/11 Meeting ML113210461 ML113340218	<p>Added “Note to LAR Developer” in Att. W. No technical change made to LAR Template (Rev. 1L).</p> <p>Task Force considers this issue closed. NRC agreed this issue closed 6/28/12.</p>

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4	FSAR (ML113210461-Slide 14) – Industry expressed concern that the NRC had changed their mind on this topic and is requesting information that previously had been identified as not necessary. NRC acknowledged the change in direction and referred to guidance in RG 1.174 and SRP 19.2 as some of the rationale for desiring information on FSAR content	Make FSAR content an attachment in NEI 04-02, Rev. 3, rather than part of the LAR. NRC desires general information, not an FSAR markup or detailed information.	11/18/11 Meeting ML113210461 ML113340218	<p>This topic is not being handled consistently between the transitioning plants. Is there a need to treat this as a generic topic.</p> <p>Change made to LAR Template (Rev. 1L) Section 5.4 (Section 5.4 Transition Schedule renumbered to Section 5.5). Added “Note to LAR Developer”</p> <p>FAQ 12-0062 received technical agreement at FAQ meeting 5/24/12.</p> <p>Task Force considers this issue closed. NRC agreed this issue closed 6/28/12.</p>
5	Defense-in-Depth/Safety Margin (ML113210461-Slide 15)– The NRC expressed concern that guidance on the process simply referred to NEI 04-02, rather than describing the process in the LAR. They indicated that they do not want detailed information by Fire Area.	LAR Template Section 4.5.2.2 to include additional information from FAQ 54 to address this concern	11/18/11 Meeting ML113210461 ML113340218	<p>Change made to LAR Template (Rev. 1L) Section 4.5.2.2.</p> <p>Additional discussion with the NRC is needed to determine closure method. NRC to review LAR template discussion.</p>
6	Fire PRA Quality (ML113210461-Slide 16) – Inconsistent use of terms was the main concern (focused scope peer review, gap assessment, etc.)	The NFPA 805 TF will work with the Fire PRA TF to clarify terminology and update the LAR template, as necessary (Att. U, V).	11/18/11 Meeting ML113210461 ML113340218	<p>Added “Note to LAR Developer” to Tables U-1 and V-1 that discusses closure of F&amp;Os, treatment of suggestion F&amp;Os, and adequate documentation of F&amp;O resolution.</p> <p>Need to add the NEI guidance that provides guidance for these terms. NEI to look at terms for Fire PRA quality.</p> <p>Fire PRA Task Force has lead on this topic.</p>

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7	Post-Transition Change Process (ML113210461-Slide 17) – The NRC wants to know more on site specific implementation. The industry expressed concern about being able to provide a lot of specifics with the LAR submittal. The NRC indicated that some level of detail on which site specific processes and procedures would be modified would need to be provided in the LAR	Guidance about this is provided in the LAR template (Rev. 1k) Section 4.7.2. FAQ 61 (under development) will help address this topic.	11/18/11 Meeting ML113210461 ML113340218	Added “Note to LAR Developer” in Section 4.7.2 of LAR Template (Rev. 1L) and referred to an example (Oconee RAI 7-05 Response Dated 9/27/10 ML102720409) and HNP RAI 7-01 dated 8/13/2009 (ML092320120)  Task Force considers this issue closed. NRC to review LAR template discussion.  FAQ 12-0061, Rev. 0 sent to NRC for review 7/6/12 (ML121910211).
8	Non-Power Operations (ML113210461-Slide 18) – The NRC wants more detailed information in the LAR on pre-fire actions to prevent spurious operation (e.g., removal of power to component) and recovery actions.	The TF will update the LAR template (Section 4.3.2, Att. D) to address this topic, rather than trying to revise FAQ 40.	11/18/11 Meeting ML113210461 ML113340218	Added “Note to LAR Developer” in Attachment D of LAR Template (Rev. 1L).  Task Force considers this issue closed. NRC agreed this issue closed 6/28/12.
9	B-2 Table (ML113210461-Slide 19) – The concern was that B-2 table statements should reference how the post-transition program meets the guidance, and not reference Appendix R or superseded documents.	The TF will review and see if additional guidance is needed in LAR template (Section 4.2.1, Att. B).	11/18/11 Meeting ML113210461 ML113340218	LAR Template Rev. 1O (Aug. 2012) - Added NOTE TO LAR DEVELOPER to LAR Template Section 4.2.1.1 to address concerns about this topic.
10	NEI 00-01 Rev. 2 (ML113210461-Slide 20) – Although FAQ 39 endorsed Rev. 1 of NEI 00-01 Chapter 3 in the B-2 table, the NRC referenced Rev. 2 of NEI 00-01 in RG 1.205 Rev. 1. The NRC would like a gap analysis of Rev. 2 vs. Rev. 1 of NEI 00-01 and a discussion of the gap analysis and results in the LAR submittal.	The NRC would like a gap analysis of Rev. 2 vs. Rev. 1 of NEI 00-01 and a discussion of the gap analysis and results in the LAR submittal (Section 4.2.1, Att. B)..	11/18/11 Meeting ML113210461 ML113340218	Added additional discussion and “Note to LAR Developer” to LAR Template (Rev. 1L) Section 4.2.1.1.  Task Force developed a list of the ‘substantive change topics’  Task Force considers this issue closed. NRC agreed this issue closed 6/28/12.

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11	Safe and Stable (ML113210461-Slide 21) – The NRC would like a justification (qualitative risk analysis) if a defined time period is specified.	Guidance on this topic is already available in FAQ 54 and in the LAR template. (Section 4.2.1.2)	11/18/11 Meeting ML113210461 ML113340218	Additional reviews indicate that the NRC may desire a qualitative risk analysis even if a defined time period is not specified.  LAR Template Rev. 1O (Aug. 2012) changed the NOTE TO LAR DEVELOPER in Section 4.2.1.2 of the LAR Template to address the NRC expectation that the information (qualitative risk assessment, additional actions) be provided regardless of whether a defined time period is defined in the LAR:
12	Complies with Clarification (ML113210461-Slide 22) – This concern was referencing an incorrect compliance statement.	It was believed that sufficient guidance exists on this topic.	11/18/11 Meeting ML113210461 ML113340218	Task Force to monitor to see if additional guidance is warranted.  LAR Template Rev. 1O (Aug. 2012) - Added NOTE TO LAR DEVELOPER to LAR Template Section 4.1.1 to address concerns about this topic.
13	Redaction of Security Related Information (ML113210461-Slide 27)	NEI-NRC to work on approach	11/18/11 Meeting ML113210461 ML113340218	Discussed 6/27 – 6/28/12. NEI to revise template to remove redactions of entire statement and reference guidance from NRC (with decision on specifics ultimately left to individual plant processes).  LAR Template Rev. 1O (Aug. 2012) removed redaction heading from Attachments C, D, G, S, and W and added discussion in new “NOTE TO LAR DEVELOPER” at beginning of LAR template.
14	Treatment of FPRA Unreviewed Analysis Methods (UAMs) (ML113210461-Slide 61).	Industry needs clear understanding of how UAMs are treated and closed out.	11/18/11 Meeting ML113210461 ML113340218	NRC expectations on this topic were discussed at the 7/24/12 management meeting and are documented in the meeting summary (ML122200690).  Fire PRA Task Force has lead on this topic.

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15	NRC now asking for 10 CFR 50.48(c)(2)(vii) submittal for use of EPRI process for surveillance optimization uses. (Fort Calhoun, Callaway)		Fort Calhoun, Callaway	<p>New item discussed at 3/22/12 TF meeting.</p> <p>Need additional discussion with staff to determine path for closure. Industry working on generic response to this topic.</p> <p>Callaway submitted 10 CFR 50.48(c)(2)(vii) (LAR Att. L) submittal with 7/12/12 RAI response.</p>
16	<p>FPRA - Sensitivity study on CPT factor 2.</p> <p>It was recently stated at the industry fire forum that the Phenomena Identification and Ranking Table Panel being conducted for the circuit failure tests from the DESIREEFIRE and CAROL-FIRE tests may be eliminating the credit for Control Power Transformers (CPTs) (about a factor 2 reduction) currently allowed by Tables 10-1 and 10-3 of NUREG/CR-6850, Vol. 2, as being invalid when estimating circuit failure probabilities. Provide a sensitivity analysis that removes this CPT credit from the PRA and provide new results that show the impact of this potential change on CDF, LERF, □CDF, and □LERF. If the sensitivity analysis indicates that the change in risk acceptance guidelines would be exceeded after eliminating CPT credit, please justify not meeting the guidelines.</p>		<p>DAEC, Cook, Callaway RAIs,</p> <p>Waterford "generic" RAIs (#9)</p>	<p>New item discussed at 3/22/12 TF meeting.</p> <p>6/28/12 – Additional discussion needed on how to treat this Fire PRA topic (not necessarily as a LAR template item). NEI to work on how to treat Fire PRA topics likely to get extensive reviews/RAIs.</p> <p>NRC expectations on sensitivity studies were discussed at the 7/24/12 management meeting and are documented in the meeting summary (ML122200690).</p> <p>Fire PRA Task Force has lead on this topic.</p>
17	Please describe how your evaluation includes the possible increase in heart (sic) release rate caused by the spread of a fire from the ignition source to other combustibles. Please summarize how suppression is included in your evaluation.		Waterford "generic" RAIs (#1)	<p>This is addressed by SRs within the PRA Standard.</p> <p>6/28/12 – Additional discussion needed on how to treat this Fire PRA topic (not necessarily as a LAR template item). NEI to work on how to treat Fire PRA topics likely to get extensive reviews/RAIs.</p> <p>Fire PRA Task Force has lead on this topic.</p>

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18	<p>Transient fires should at a minimum be placed in locations within the plant PAUs where CCDPs are highest for that PAU, i.e., at "pinch points." Pinch points include locations of redundant trains or the vicinity of other potentially risk-relevant equipment, including the cabling associated with each. Transient fires should be placed at all appropriate locations in a PAU where they can threaten pinch points. Hot work should be assumed to occur in locations where hot work is a possibility, even if improbable (but not impossible), keeping in mind the same philosophy.</p>		Waterford "generic" RAIs (#2)	<p>This is addressed by SRs within the PRA Standard.</p> <p>6/28/12 – Additional discussion needed on how to treat this Fire PRA topic (not necessarily as a LAR template item). NEI to work on how to treat Fire PRA topics likely to get extensive reviews/RAIs.</p> <p>Fire PRA Task Force has lead on this topic.</p>
19	<p>Discuss the calculation of the frequencies of transient and hot work fires. Characterize your use of the influence factors for maintenance, occupancy, and storage, noting if the rating "3" is the most common, as it is intended to be representative of the "typical" weight for each influence factor.</p>		Waterford "generic" RAIs (#3, 4)	<p>This is addressed by SRs within the PRA Standard.</p> <p>6/28/12 – Additional discussion needed on how to treat this Fire PRA topic (not necessarily as a LAR template item). NEI to work on how to treat Fire PRA topics likely to get extensive reviews/RAIs.</p> <p>FAQ 12-0064 addresses this topic.</p> <p>Fire PRA Task Force has lead on this topic.</p>
20	<p>Section 10 of NUREG/CR-6850 Supplement 1 states that a sensitivity analysis should be performed when using the fire ignition frequencies in the Supplement instead of the fire ignition frequencies provided in Table 6-1 of NUREG/CR-6850. Provide the sensitivity analysis of the impact on using the Supplement 1 frequencies instead of the Table 6-1 frequencies on CDF, LERF, □CDF, and □LERF for all of those bins that are characterized by an alpha that is less than or equal to one. If the sensitivity analysis indicates that the change in risk acceptance guidelines would be exceeded using the values in Table 6-1, please justify not meeting the guidelines.</p>		Waterford "generic" RAIs (#7)	<p>NRC expectations on this topic were discussed at the 7/24/12 management meeting and are documented in the meeting summary (ML122200690).</p> <p>Fire PRA Task Force has lead on this topic.</p>

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21	Please describe how CDF and LERF are estimated in main control room (MCR) abandonment scenarios. Do any fires outside of the MCR cause MCR abandonment because of loss of control and/or loss of control room habitability? Are "screening" values for post MCR abandonment used (e.g., conditional core damage probability of failure to successfully switch control to the Primary Control Station and achieve safe 3 shutdown of 0.1) or have detailed human error analyses been completed for this activity. Please justify any screening value used.		Waterford "generic" RAIs (#8)	This is addressed by SRs within the PRA Standard.  6/28/12 – Additional discussion needed on how to treat this Fire PRA topic (not necessarily as a LAR template item). NEI to work on how to treat Fire PRA topics likely to get extensive reviews/RAIs.  Fire PRA Task Force has lead on this topic.
22	Attachment W of the LAR provides the ..CDF and ..LERF for the variances from the deterministic requirements (VFDRs) for each of the fire areas, but the LAR does not describe either generically or specifically how ..CDF and ..LERF were calculated. Describe the method(s) used to determine the changes in risk reported in the Tables in Appendix W. The description should include:  a) A summary of PRA model additions or modifications needed to determine the reported changes in risk. If any of these model additions used data or methods not included in the fire PRA Peer Review please describe the additions.  b) Identification of new operator actions (not including post MCR abandonment which are addressed elsewhere) that have been credited in the change in risk estimates. If such actions are credited, how is instrument failure addressed in the HRA.		Waterford "generic" RAIs (#10)	This is a candidate for revision to LAR template.  Added section to Attachment W.  LAR Template Rev. 10 (Aug. 2012) changed the NOTE TO LAR DEVELOPER Section W.2.1 to cross reference Generic RAIs 22 and 24 related to methods used to calculated change in risk.  Fire PRA Task Force has lead on this topic.
23	Did the peer reviews for both the internal events and fire PRAs consider the clarifications and qualifications from Regulatory Guide (RG) 1.200, Revision 2, "An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities," March 2009 (ADAMS Accession No. ML09041 0014) to the ASME/AMS PRA Standard? If not, provide a self-assessment of the PRA model for the RG 1.200 clarifications and qualifications and indicate how any identified gaps were dispositioned.		Waterford "generic" RAIs (#11)	Added the following note to LAR Developer in Attachment U:  LAR Template Rev. 10 (Aug. 2012) includes in NOTE TO LAR DEVELOPER Attachment U to provide a general discussion of the standards against which the Internal Events PRA has been reviewed. Ensure that RG 1.200 Revision 2 has been considered.  6/28/12 – NRC questioned RG 1.200 Rev. 2 for fire and asked to ensure guidance in LAR template addressed fire.  Fire PRA Task Force has lead on this topic.

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24	Identify if any variance from deterministic requirement (VFDRs) in the LAR involved performance-based evaluations of wrapped or embedded cables. If applicable, describe how wrapped or embedded cables were modeled in the Fire PRA including assumptions and insights on how the PRA modeling of these cables contributes to the VFDR delta risk evaluations.		Waterford "generic" RAIs (#12)	See item 22.  LAR Template Rev. 1O (Aug. 2012) changed the NOTE TO LAR DEVELOPER Section W.2.1 to cross reference Generic RAIs 22 and 24 related to methods used to calculated change in risk.  Fire PRA Task Force has lead on this topic.
25	Identify any plant modification (implementation item) in Attachment S of the LAR that have not been completed but which have been credited directly or indirectly in the change-in-risk estimates provided in Attachment W. When the effects of a plant modification has been included in the PRA before the modification has been completed, the models and values used in the PRA are necessarily estimates based on current plans. The as-built facility after the modification is completed may be different than the plans. Please add an implementation item that, upon completion of all PRA credited implementation items, verifies the validity of the reported change-in-risk. This item should include your plan of action should the as-built change-in-risk exceed the estimates reported in the LAR.		Waterford "generic" RAIs (#13)	Added a note to LAR developer in Attachment S.  The task force considers this issue closed. Task Force considers this issue closed. NRC to review LAR template discussion.
26	Please identify any changes made to the internal events or fire PRA since the last full scope peer review of each of these PRA models that are consistent with the definition of a "PRA upgrade" in ASME/ANS-RA-Sa-2009, as endorsed by Regulatory Guide 1.200. Also, please address the following: i) If any changes are characterized as a PRA upgrade, please identify if a focused scope peer review was performed for these changes consistent with the guidance in ASME/ANS-RA-Sa-2009, as endorsed by Regulatory Guide 1.200, and describe any findings from that focused-scope peer review and the resolution of these findings for this application. ii) If a focused-scope peer review has not been performed for changes characterized as a PRA upgrade, please describe what actions will be implemented to address this review deficiency.		Waterford "generic" RAIs (#14)	This is a candidate for revision to LAR template.  LAR Template Rev. 1O (Aug. 2012) includes in NOTE TO LAR DEVELOPER Attachment U to a discussion of this topic.  Fire PRA Task Force has lead on this topic.

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27	During the 5/24/12 public meeting the NRC asked that the licensee identify deviations from NUREG/CR 6850 methods including those that involve justifications.	The staff has noticed that this has been treated inconsistently in the submittals.		NRC expectations on this topic were discussed at the 7/24/12 management meeting and are documented in the meeting summary (ML122200690).  Fire PRA Task Force has lead on this topic.
28	Issues related to IEEE-383 cable qualifications <ul style="list-style-type: none"> <li>• From a Chapter 3 standpoint, IEEE-383 qualification only deals with FLAME SPREAD</li> <li>• Assumptions related to damage threshold in either the Fire PRA or Fire Modeling Performance-Based Approach must be based on the material characteristics</li> </ul>		6/27/12 Public Meeting (Slide 8)	This is not necessarily a LAR template item, but a topic that should be understood by licensees in preparation of the LAR.
29	NFPA 805 Quality Section 2.7.3 – Unlike the pilots, some licensees are not committing to compliance to NFPA 805 Section 2.7.3 for future engineering analyses <ul style="list-style-type: none"> <li>• Review</li> <li>• Verification and Validation</li> <li>• Limitations of Use</li> <li>• Qualification of Users</li> <li>• Uncertainty Analyses</li> </ul>		6/27/12 Public Meeting (Slide 9)	Candidate for LAR template revision.  LAR Template Rev. 1O (Aug. 2012) - Added NOTE TO LAR DEVELOPER to LAR Template Section 4.7.3 to address concerns about this topic.
30	Clarification needed on risk and delta risk criteria related to credit for modifications, additional risk of recovery actions		6/27/12 Public Meeting PRA Slides (Slide 5)	Need additional discussion with NRC on this topic. Candidate for LAR template revision after clarification obtained and agreed upon.  Fire PRA Task Force has lead on this topic.

### Legend

	Generic Topic Closed – Discussed with NRC in public meeting and mutual understanding that the topic does not warrant additional discussion as a “Generic Topic” or “Generic RAI”.
	Topic is related to Fire PRA. NEI’s Fire PRA Task Force will have the lead role in addressing this topic.