

Preliminary questions for discussion at Salem flooding walkdown audit 6/25-6/27/2013

#	Background/issue description	Questions
1	<p>Appendix D of NEI 12-07 states that the walkdown report should include the following: "Description of all deficiencies as determined by the CAP. Observations that are entered into the CAP and not dispositioned as deficiencies do not need to be reported." In addition, NEI 12-07 states: "All flooding walkdown observations identified as deficiencies by the Corrective Action Program (CAP) and other items identified during the walkdowns, but awaiting final disposition by the CAP, must be reported to the NRC in the walkdown report."</p> <p>NEI 12-07 defines a deficiency as follows: "a deficiency exists when a flood protection feature is unable to perform its intended flood protection function when subject to a design basis flooding hazard. This condition may also lead to compromising the overall ability to provide protection or mitigation."</p> <p>Page 36 of the walkdown report for Salem indicates that a review of potential deficiencies was (or will be) performed as part of the CAP process to determine whether potential deficiencies should be classified as deficiencies. Potential deficiencies are described in attachments A and D to the Salem walkdown report. The walkdown report does not list identified deficiencies.</p>	<ul style="list-style-type: none"> - Did the CAP identify any deficiencies from the list of potential deficiencies included in the Salem walkdown report? - Why did the walkdown report only report potential deficiencies rather than identified deficiencies? - Were any deficiencies identified at the time the walkdown report was submitted?
2	<p>Footnote 4 on pg. 35 of the Salem walkdown report indicates that the total number of "potential/actual deficiencies" identified at the site (512) includes features with "apparent negative margin." The licensee indicates that a notification exists to investigate actual margin for these features.</p>	<ul style="list-style-type: none"> - What features were identified as having negative margin? - How were these issues dispositioned (and using what criteria) as part of the CAP? - Do these features represent deficiencies (per definition in NEI 12-07) or instances of "small margin and significant consequences" (per question 27 of the walkdown record form in NEI 12-07)? - How was available physical margin (APM) measured for these features?
3	<p>Attachment A, p. 10 and Attachment D, p. 4 states the following: "There are several</p>	<ul style="list-style-type: none"> - Does the site have seals that are unable to

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	<p>penetration seals throughout the plant [that] do not have a hydrostatic rating that is sufficient for the licensing basis flood level. These seals require further investigation to determine if there is an error in the documentation or if the seals are credited external flood boundaries. This issue is common for both Salem units.”</p> <p>The attachments also state the following: “There are several penetration seals throughout the plant that do not have sufficient documentation to determine their hydrostatic rating. Further investigation is required to ensure the hydrostatic rating is sufficient to provide protection from an external flood. This issue is common for both Salem units.”</p>	<p>withstand the required hydrostatic loads?</p> <ul style="list-style-type: none"> - How were these issues dispositioned (and using what criteria) as part of the CAP? - Do these features represent deficiencies (per definition in NEI 12-07) or instances of “small margin and significant consequences” (per question 27 of the walkdown record form in NEI 12-07)?
4	<p>NEI 12-07, Attachment A provides examples of inspection considerations. For penetration seals, the following consideration is included for wall, ceiling, and floor seals (e.g., penetration seals): Penetration sleeves, link seals, piping, and conduit should have an absence of corrosion on the exposed steel surface. Conduit seal material should have an absence of water stains below the penetrations.</p> <p>Attachments A and D to the Salem walkdown report describe a large number of conditions in which heavy corrosion, missing foam, leakage (or signs of historical leakage), rust streaks, standing water, calcification, or seal degradation was observed. The report does not identify features types, but rather indicates a feature ID.</p>	<ul style="list-style-type: none"> - What features (e.g., seals) were associated with these observations? - How were these issues dispositioned (and using what criteria) as part of the CAP? - Do these features represent deficiencies (per definition in NEI 12-07) or instances of “small margin and significant consequences” (per question 27 of the walkdown record form in NEI 12-07)? - Was in-leakage (i.e., amount of water leaking through barriers) measured?
5	<p>The Salem walkdown report references two procedures related to flood preparation:</p> <ul style="list-style-type: none"> ▪ OP-AA-108-111-1001, "Severe Weather and Natural Disaster Guidelines" [Ref. 17], which provides guidelines for actions to be taken in preparation for potential flooding events ▪ SC.OP-AB.ZZ-0001(Q), "Adverse Environmental Conditions [Ref. 18] <p>The walkdown report states the following: “A reasonable simulation was performed at SGS which confirmed that the actions described within the implementing procedure SC.OP-AB.ZZ-0001(Q), "Adverse Environmental</p>	<ul style="list-style-type: none"> - Were reasonable simulations performed for any procedures besides SC.OP-AB.ZZ-0001(Q), "Adverse Environmental Conditions"? If not, what is the justification that reasonable simulation is not required for any other procedures? - What methodology (physical simulations or tabletop exercises) was used for reasonable simulation?

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	<p>Conditions" [Ref. 18] can be performed within the required period of time, and sufficient resources are allocated and staged to perform those actions."</p> <p>NEI 12-07 states that reasonable simulation should consider issues such as adverse weather conditions. In addition, reasonable simulation should consider the time required for detection, recognition, and communication (e.g., mechanisms for receiving warnings of a flood event).</p>	<ul style="list-style-type: none"> - What adverse weather conditions were considered as part of reasonable simulations (e.g., did the licensee determine it was appropriate to consider high winds? If so, how were high winds "factored in?")? - How was warning time factored into reasonable simulations to determine the time available to perform required activities? - What procedure enhancements were identified (as indicates on p. 32 of the Salem walkdown report)?
<p>6</p>	<p>The Salem walkdown report references the shoreline protection and dike system.</p> <p>Appendix A of NEI 12-07 provides examples of inspection considerations for the flooding walkdowns. For earthen features (e.g., flood protection berms), Appendix A of NEI 12-07 includes the following considerations:</p> <ul style="list-style-type: none"> ▪ Verify that earthen features are in place as designed to the correct height (with no allowance for dimensional tolerances that reduce its protection function) and width. Verify that rip-rap or other erosion protection features are installed and in place if included. ▪ No signs of leakage 	<ul style="list-style-type: none"> - What criteria (inspection considerations) were used in the walkdown of the shoreline protection dike? - Were any potential deficiencies (or deficiencies) observed for the shoreline protection dike? How were these issues dispositioned (and using what criteria) as part of the CAP?