NRC Audit of South Texas Project Units 3 & 4

No.	Session Date	Session Time	Action Item Description	Requestor	Responsible Organization	Responsible Person	Due Date	Response Status	Further Action Required
1	1/17	1:00	RAI 09.01.02-19 Impact of a fallen bundle on the top of the spent fuel rack	Morante	West.	Quinn/Breed	1/20/12	Closed	Revised RAI response will be submitted. Revise WCAP 17375-P.
2	1/17	1:00	Was the fuel integrity evaluation done using the response spectra in the core or for elevation of the vessel?	Morante	West.	Quinn	1/18/12	Closed	NA
3	1/17	3:30	Provide Crystal River Analyses - purpose is to provide comparative analyses that would help provide justification of our products.	Morante	West.	Coble	1/18/12	Closed	NA
4	1/17	3:30	RAI 09.01.02-30 Look at time history results for different racks to see if they show the progressive effect of friction on sliding displacements.	Morante	West.	Coble	1/19/12	Closed	Revise RAI response to provide additional information (coeifficent of friction study) presented during the audit and including the WCAP first six tables on sliding detail.
5	1/17	3:30	RAI 09.01.02-30 Evaluate potential time history analyses at reduced input to evaluate sliding magnitude.	Morante	West.	Coble	1/20/12	Closed	The information related to sliding displacements will be taken to the Peer review to confirm results and explore options. Based on their judgements, if necessary we will perform additional evaluations. We will provide this summary in a revised RAI.
6	1/18	8:00	RAI.01.02-20 Address in response that when permanent equipment is added to the spent fuel pool that this activity would triggers 10 CFR 50:59 process.	Morante	West.	Fisicaro/ Daley	NA	Closed	Add a sentence to the RAI response that says something like " The 10 CFR 50:59 process is governed by procedues and contains triggers to include: permanent (addition of permanent equipment to the spent fuel pool) and temporary modificication, etc.

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7	1/18	8:00	RAI.01.02-22 Address in response why hydrodynamic mass coupling between the rack and wall is still valid when you have the sliding displacements that we have at STP.	Morante	West.	Coble	1/19/12	Closed	Provide additional detail in RAI response. This infomration will be provided to the Peer review.
8	1/18	8:00	RAI.01.02-31 Address in response that there may be small rotational forces on the weld that are not addressed. Possibly do a static analyses.	Morante	West.	Coble	1/19/12	Closed	Provide additional detail in RAI response.
9	1/18	8:00	RAI.01.02-31 - Perform a static run to evaluate the effect of moment coupling and weld excentricity on weld stresses (cell to cell corner spacer).	Morante	West.	Coble	1/20/12	Closed	The information related to this issue will be taken to the Peer Group for review to confirm results and explore options. Based on their judgements, if necessary we will perform additional evaluations. We will provide this summary in a revised RAI.
10	1/18	4:00	Define the bases of the gap at the top of the fuel assembly.	Chakrabarti	West.	Albert/Coble	1/20/12	Closed	We will do some additional investigation on this issue and will provide a response in the updated RAI …or a letter related to the audit.
11	1/19	9:00	RAI 09.01.02-19 Consider drag on the wrapper plate and boral and reactivitity consequences.	Chakrabarti	West.	Albert	1/20/12	Closed	Consult Peer review team in an effort to provide our perspective on this issue. We will provide this summary in a revised RAI.
12	1/19	9:00	RAI 09.01.02-19 Consider (hand calculation) the potential for fuel assembly buckling and resultant impact on the cell wall.	Morante	West.	Albert	1/20/12	Closed	Consult Peer review team in an effort to provide our perspective on this issue. An additonal hand calculation may be performed, if necessary. We will provide this summary in a revised RAI.
13	1/19	1:00	RAI 09.01.02-24 Further discussion on impact stiffness to justify that additional values don't need to be evaluated.	Morante	West.	Coble	1/20/12	Closed	NA

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14	1/19	1:00	RAI 09.01.02-18 Need to have further discussions on item 2 (more discussion needed). There is disagreement on the moment arm on the screw.	Morante	West.	NRC	1/20/12		Consult Peer review team in an effort to provide our perspective on this issue. We will provide this summary in a revised RAI.
15	1/19	1:00	RAI 09.01.02-32 and RAI 09.01.02-18 item 4 - Look at fuel assembly deformation and sensitivity of impact load based on fuel node location.	Morante	West.	Coble	1/20/12	Closed	Process additonal information from the current results to provide additional detail on fuel to rack interactions, specifically deformed shape of the fuel assembly.
16	1/19	1:00	Peer review - Westinghouse plans to go back and discuss status of 16 peer group identifed items and other items identified in the audit to the peer group for review in an effort to ensure a high quality level for products.	NA	NA	NA	NA	Closed	Westhinghouse will reconvene the peer group and will provide this action in a revised RAI. Any significant further action provided by the peer group will be provided to the NRC.
17	1/19	4:00	RAI 09.01.02-25 1. What is the acceptability for verticle fuel impact loads? 2. What is the effect of the fuel impact load calculated in the time history analyses on the fuel assembly? 3. Evaluate closing the gaps at the center of the fuel assembly for the kinetic energy evaluation. Addressing the fuel integrity	Chakrabarti	West.	Coble	1/20/12	Closed	These questions will be addressed in an updated RAI response.
18	1/20	9:00	RAI 09.01.02-32 The bases provided for the element span for the horizontal impact needs additional clarification. Specifically the vertical distribution needs additional clarification.	Morante	West.	Coble	1/20/12	Closed	Provide the additional information/clarification in the RAI responses based on static analyses of the vertical load distribution between the fuel and the cell wall due to the maximum impact load.

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19	1/20	9:00	Regarding Calculation #CN-MRCDA-11-23 1. Buckling capacity of the spent fuel racks - NRC plans to isssue an RAI to better understand the details related to compressive loads, what equations used, etc. 2. NRC needs to confirm that the models used are appropriate and meet regulations. 3. Comment on page 87 - why not use a dynamic output? 4. Page 80 - not clear. Looking for the bases for adjustment ratio. NRC meeting concluded that the white paper should include: 1. Idenifty areas of high compressive load. 2. Select areas for detailed buckling analyses and justify that these are the worst case. 3. Define compressive stress field and describe how the stress field was developed and provide base for the development. 4. Identify the classical buckling models used and why they are applicable or provide bounding solutions.	Morante	West.	Coble	1/20/12	Closed	As part of the audit a detailed discussion will take place to identify the NRC conerns in this area. During this discussion the objectives will be to frame the NRC concerns and action necessary to resolve the concerns. NINA will submit on the docket a white paper that lays out the detail necessary to meet regulatory requirements for this area. This action will be accomplished as part of the completion of the audit.