

From: Balwant Singal
To: amy.hazelhoff@nmcco.com
Date: 2/8/2007 1:18:32 PM
Subject: Palisades 4th 10 Year ISI, Relief Request RR4-10 (TAC MD2413) - RAIs

Amy:

Draft RAIs for Relief Requests (RR4-1 through RR4-12) were forwarded to you via e-mail on 11/17/06 by Mark Padovan. He also indicated in his e-mail that there will be additional RAIs for RR4-10 with PRA aspects to be forwarded later.

The purpose of this e-mail is to forward you the additional RAIs for RR4-10. Please let us know if a conference call is needed to discuss these RAIs.

This e-mail is being sent on behalf of Mac Chawla, Project Manager for Palisades.

Additional RAIs for RR4-10:

1. In your original submittal of March 1, 2002, you stated that "The RI-ISI program is a living program requiring feedback of new relevant information to ensure the appropriate identification of high safety significant piping locations. As a minimum, risk ranking of piping segments will be reviewed and adjusted on an ASME period basis." (Such an endeavor would also have to include the processes of element selection and inspection requirements for those piping segments that are re-ranked from LSS to HSS.)

The staff found no information in Relief Request RR4-10 pertaining to such a review. Please provide a description of what you did to implement the above living RI-ISI program commitment in preparation for your request to extend this program into the fourth ISI interval. Your description should specify those portions of the RI-ISI program process steps that were re-performed (e.g. - scope definition, segment definition, consequence evaluation, failure probability estimation, element selection, etc), and/or explain and justify what was done in lieu of re-performing those steps needed to "review and adjust" the risk ranking of piping segments.

2. Relief Request RR4-10 states that your originally submitted RI-ISI program was approved by the NRC on May 19, 2003, "Palisades Plant: Risk-Informed Inservice Inspection Program" for the remainder of the third inspection interval, and that this approval included four deviations from the WCAP Methodology, one of which "involved the method of calculating the failure frequency of containing piping with multiple sizes." RR4-10 also states that "With the NRC approval of WCAP-14572, Supplement 2, 'Westinghouse Owners Group Application of Risk-Informed Methods to Piping Inservice Inspection Topical Report Clarifications' the deviation for calculating the failure frequency of piping containing multiple sizes is no longer required as Palisades original treatment of piping with multiple sizes is in conformance with Supplement 2 of the WCAP."

Yet, the supplement to your original submittal of February 28, 2003 stated the following relative to the treatment of HSS segments of multiple pipe sizes: "To facilitate NRC review and approval of the proposed RI-ISI Program, NMC enhanced the structural element selection process to identify the HSS segments that contain multiple pipe sizes and included additional inspections to ensure each pipe size in the HSS segments in the proposed RI-ISI Program have at least one inspection."

As a result of the above observations, along with another statement in Relief Request RR4-10, "The previously approved RI-ISI Program will be substituted for Class 1 and 2 piping (Examination Categories B-F, B-J, C-F-1 and C-F-2)...", it is not clear to the staff whether the Palisades RI-ISI program for the fourth ISI interval continues to be based on the February 28, 2003 supplement to the original submittal (requiring at least one inspection for each pipe size in HSS multiple pipe size segments, which is slightly more conservative than the requirements from WCAP-14572, Supplement 2), or whether it has been reconfigured to conform to

WCAP-14572, Supplement 2 (a recent addition to the NRC-approved methodology which does not require at least one inspection for each pipe size in HSS multiple pipe size segments). To the extent that you have not already discussed this in your response to RAI #1:

a. Please clarify the methodology for segment definition and element selection for the fourth ISI interval. If your program now conforms to WCAP-14572, Supplement 2, it is sufficient to simply state this.

b. If piping segments were re-ranked as part of this submittal, please indicate any segments re-ranked from HSS to LSS, and the reason for it. If any of these were done using the provisions of WCAP-14572, Supplement 2, 'Westinghouse Owners Group Application of Risk-Informed Methods to Piping Inservice Inspection Topical Report Clarifications', by which the Expert Panel may make judgments to effect such re-ranking, please summarize the rationale documented by the Expert Panel for affected segments.

c. Please provide the NRC staff two tables similar to Table 5-1 from your original submittal of March 1, 2002. The first of these should present the Palisades RI-ISI program as approved in the NRC safety evaluation (SE) of May 19, 2003. (Apparently this table was not provided in the supplement to your original submittal of February 28, 2003. Hence the staff does not currently have access to this table.) The second should present the Palisades RI-ISI program as proposed for the fourth 10-year ISI interval.

Note: If the two tables are identical, one table, with a statement that they are identical, will suffice. However, please make it clear if they are identical because you are simply resubmitting the third ISI interval program for the fourth interval, or if, despite the review, adjustments, and/or any changes to your RI-ISI process, the third and fourth ISI interval programs remain identical.

d. Please indicate if there are any intended changes to the actual location of proposed examinations (regardless of whether or not the "Number of Exam Locations" between the above two tables have changed). If so, please indicate in which systems/segments will have different locations for the upcoming 10-year ISI interval, and the reasons for making these changes.

3. Please provide a summary of the results of your change in risk evaluation for the fourth ISI interval. A table similar to table 3.10-1 of the original submittal would be appropriate.

4. During the submittal and review process for your original RI-ISI program the staff inquired about limitations in your Individual Plant Examination. Your responses indicated that you had employed current methodologies and/or made appropriate changes to the PRA model used in the original RI-ISI application to address the issues raised. In addition, you described the results of a Combustion Engineering Owners Group (CEOG) peer review of your PRA model, and what was done to address the key findings from that review. As a result, the NRC staff, in its safety evaluation (SE) of May 19, 2003, found "that the quality of the Palisades P[S]AR1A PRA is sufficient to support this submittal."

However, six years have elapsed between the development of PRA model PSAR1A and the submittal of your request to extend your RI-ISI program into the fourth 10-year interval. To provide assurance that changes made to the PRA during this period are consistent with the previous conclusion that "that the quality of the Palisades P[S]AR1A PRA is sufficient to support this submittal", please provide the following:

a. The revision name or number, date, and base CDF and LERF of the Palisades PRA model used to perform the risk ranking of pipe segments and change in risk evaluation in preparation for the fourth 10-year ISI interval.

b. A summary description of the significant changes to the PRA model since the first submittal, a significant change being one that affects the risk-ranking of pipe segments in a substantial manner.

c. A summary of how the significant changes to the Palisades PRA provided in response to RAI #4b were developed and reviewed (in particular, the aspects of analysis methods and data).

5. The newer versions of the ASME Code have reduced the exempted portions of Auxiliary Feedwater piping from NPS 4 to NPS 1½. This reduction in exempted piping has caused other licensees to add ASME Class 2 and/or Class 3 Auxiliary Feedwater piping to the scope of their RI-ISI programs, and to implement their chosen RI-ISI methodology to classify, risk-rank, and to select, as necessary, additional locations for the next ISI interval.

Please describe how you treated this issue in your RI-ISI program for the fourth ISI interval when you updated your code of record from the 1989 edition to the 2001 edition with 2003 addenda.

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nrc.gov OWGWPO03.HQGWDO01 MLC CC (Mahesh Chawla)	Delivered	2/8/2007 1:18:38 PM
nrc.gov TWGWPO01.HQGWDO01 MAM6 CC (Mark Melnicoff) PDM CC (Patrick Milano)	Delivered	2/8/2007 1:18:39 PM

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