



Program Management Office
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WCAP-17236-NP, Revision 0
 Project Number 694

October 4, 2010

OG-10-342

U.S. Nuclear Regulatory Commission
 Document Control Desk
 Washington, DC 20555-0001

Subject: PWR Owners Group
Submittal of WCAP-17236-NP, Revision 0 "Risk-Informed Extension of the Reactor Vessel Nozzle Inservice Inspection Interval," PA-MS-0440

The Pressurized Water Reactor Owners Group (PWROG) is requesting formal review of WCAP-17236-NP, Revision 0, in accordance with the Nuclear Regulatory Commission (NRC) Topical Report (TR) program for review and acceptance for referencing in regulatory actions.

In support of the Office of Nuclear Reactor Regulation's prioritization efforts, the following prioritization scheme matrix was completed and justification for the points assigned is provided below.

WCAP-17236-NP, Revision 0, "Risk-Informed Extension of the Reactor Vessel Nozzle Inservice Inspection Interval"

TR Prioritization Scheme Matrix			
*Industry input on shaded areas was not requested.			
Factors	Select the Criteria That the TR satisfies	Points Assigned For Each Criteria	Total Points (if points are cumulative, total them for each factor in this column)
TR Classification (Points are cumulative)	Generic Safety Issue	6	1
	Emergent Technical Issue	3	
	Standard TR	1	
Applicability (Points are not cumulative)	Industry-wide Implementation	3	1 (TR is applicable to the 29 units identified in Section 4 of the TR.)

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	Applicable only to partial groups of licensees	1	
Specialized Resource Availability (Points are cumulative)	NRC staff expertise is readily available (The NRC staff will evaluate this criteria)	1.5	0.5 (This TR is needed by plants that have made plant-specific requests to implement the extended RV ISI Interval based on WCAP-16168-NP, Revision 2. To date, 18 plants have been approved to implement this extended interval.)
	Technical data is available/readily accessible (The NRC staff will evaluate this criteria)	1	
	TR approval is needed by a certain date to support a licensing activity. Explain when and why?	0.5	
Total Points (Add the total points from each factor and total here):			2.5

TR Classification:

Section XI of the *American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code* specifies a 10-year interval between reactor vessel (RV) nozzle weld inspections. The industry has expended significant cost and man-rem exposure performing inspections that have found no service-induced flaws in ASME Section XI Category B-F or B-J RV nozzle welds that do not contain Alloy 82/182. Furthermore, many plants have implemented a 20-year inspection interval for the RV shell-to-shell and shell-to-nozzle welds in accordance with WCAP-16168-NP-A, Revision 2. For many of these plants, continuing to inspect the RV nozzle welds on a 10-year interval presents a significant hardship without a corresponding increase in safety from performing the inspections. NRC review and approval of the methodology contained in WCAP-17236-NP, Revision 0, will help minimize the removal of the core barrel, will reduce man-rem exposure, and will reduce inspection costs.

Applicability: This Topical Report is applicable to the 29 PWR units specified in Section 4 of the Topical Report.

Specialized Resource Availability: In 2008, R.E. Ginna made a plant-specific request to the NRC to implement the extended RV ISI interval in accordance with WCAP-16168-NP, Revision 2. An additional relief request was submitted at that time to extend the RV nozzle ISI interval extension, partially based on a change-in-risk assessment. A second request was considered for the Palisades Nuclear Power Plant. During discussions with the NRC Staff pertaining to these requests, it was suggested by the NRC staff that such an effort be pursued through the topical report process. The change-in-risk assessment was removed from the R.E. Ginna relief request and the Palisades relief request was not submitted. WCAP-17236-NP, Revision 0, is the Topical Report that has been developed based on the direction from the NRC Staff. This Topical Report contains the technical basis and methodology for extending the Section XI inspection interval from the current 10 years to 20 years for Category B-F and B-J RV nozzle-to-safe-end and safe-end-to-pipe welds that are not fabricated with Alloy 82/182 materials.

Bounding change-in-failure-frequency values have been calculated for use in plant-specific implementation of the extended inspection interval. Plant-specific pilot studies have been performed and the results show that the change in risk associated with extending the interval from 10 to 20 years after the initial 10-year inservice inspection satisfies the guidelines specified in Regulatory Guide 1.174 for an acceptably low change in risk for core damage frequency (CDF) and large early release frequency (LERF). Further, the pilot-plant results show that the effect of the extended inspection interval on the plant's risk-informed inservice inspection program for piping is acceptable.

This letter transmits four (4) copies of WCAP-17236-NP, Revision 0, entitled "Risk-Informed Extension of the Reactor Vessel Nozzle Inservice Inspection Interval," dated September 2010.

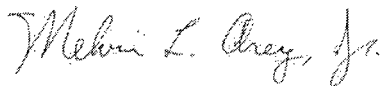
Consistent with the Office of Nuclear Reactor Regulation, Office Instruction LIC-500, Revision 4, "Topical Report Process," the PWROG requests that the NRC provide target dates for any Request(s) for Additional Information and for issuance of the Safety Evaluation for WCAP-17236-NP, Revision 0.

Correspondence related to this transmittal should be addressed to:

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If you have any questions, please do not hesitate to contact me at (704) 382-8619 or Mr. Anthony Nowinowski of the PWR Owners Group Program Management Office at (412) 374-6855.

Sincerely yours,



Melvin L. Arey, Jr., Chairman
PWR Owners Group

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Enclosures:

1. Four (4) non-proprietary copies of WCAP-17236-NP, Revision 0, entitled "Risk-Informed Extension of the Reactor Vessel Nozzle Inservice Inspection Interval,"

cc: PWROG Steering Committee PWROG Management Committee
PWROG Licensing Subcommittee PWROG Materials Subcommittee
PWROG Project Management Office
J. Rowley, USNRC (4 Non-Proprietary Copies) (via Federal Express)
M. Mitchell, USNRC C. Brinkman, Westinghouse
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