

April 18, 1997

Mr. Roger A. Newton, Chairman
LCM/LR Working Group
Westinghouse Owners Group
Wisconsin Electric Power Company
231 West Michigan
Milwaukee, WI 53201

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION REGARDING THE WESTINGHOUSE
OWNERS GROUP TOPICAL REPORT WCAP-14575 (TAC NO. M96439 and M92414)

Dear Mr. Newton:

By letter dated August 28, 1996, the Westinghouse Owners Group (WOG) submitted Generic Technical Report (GTR) WCAP-14575, "License Renewal Evaluation: Aging Management Evaluation for Class 1 Piping and Associated Pressure Boundary Components," Revision 0, August 1996, to the Nuclear Regulatory Commission for review and approval. The staff has completed its initial review of WCAP-14575 and concluded that additional information is needed to complete the staff's review.

Enclosed is the staff's request for additional information (RAI). It should be noted that as the staff's review progresses, additional RAIs may be issued. Please review the request and provide responses in a timely manner. If you have any questions please call Robert Prato of my staff at (301) 415-1147.

This requirement affects less than ten (10) respondents, and therefore is not subject to Office of Management and Budget review under Public Law 96-511.

Sincerely,

Original signed by:
P. T. Kuo, Section Chief
License Renewal Project Directorate
Division of Reactor Program Management
Office of Nuclear Reactor Regulation

Project No. 686

Enclosure: As stated

cc w/enclosure: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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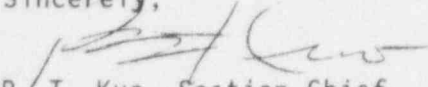
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WESTINGHOUSE OWNERS GROUP (WOG)

Project No. 686

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231 West Michigan
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1. In Section 3 of the report, aging effects that require management during the extended period of operation are identified.
 - a. Section 3.3.1 of the report indicates that Class 1 thermowells are the only pressure components that are subjected to a dynamic load associated with flow-induced vibration and potentially susceptible to high-cycle fatigue damage. Describe how the aging management program for fatigue addresses this issue.
 - b. Section 3.3.2 contains a description of a fatigue assessment of B31.1 piping design. The final sentence concludes, "Based on the successful operating history of fossil plants (using the B31.1 approach) and the high cost of evaluating these stresses with a detailed fatigue analysis, this was considered to be an acceptable approach for nuclear plants." Explain what is intended by this sentence. Also, explain how this conclusion was used to develop the aging management program for fatigue.
2. In Section 4.2.1 of the report, the aging management program for fatigue is described.
 - a. Step 2 of the program appears to allow the use of ASME Code, Section XI, inspection techniques to demonstrate the acceptability of a component as an alternative to meeting the licensing basis criteria in Step 1. The staff has not endorsed this position. Discuss how the use of this alternative provides assurance that the licensing basis criteria has been met at a facility.
 - b. Step 3 of the program appears to allow the use of flaw tolerance or leak-before-break analysis to demonstrate the acceptability of a component as an alternative to meeting the licensing basis criteria in Step 1. The staff has not endorsed these positions. Discuss how the use of these alternatives will demonstrate that the licensing basis criteria has been met at a facility.
 - c. The discussion following Step 3 of the program describes issues regarding environmental effects on fatigue. The location of this discussion is confusing because Step 3 appears to be an alternative to Step 1. SECY 95-245 provided the staff recommendation regarding the use of environmental fatigue data for license renewal evaluations. Clarify the method in which the staff recommendation in SECY 95-245 is addressed by the program.
 - d. Table 4-8 lists parameters developed by the PVRC to identify components where the environmental effect on fatigue life are not considered significant. Describe the test data used to establish the criteria for water flow velocity.
3. Are there aging management programs (other than the ASME Code examinations that you cite) that you want the staff to generically credit to participating WOG plants? If so, identify each program and provide more detail about actions taken, results, and validity for the

ATTACHMENT

period of extended operation. For example, the report does not describe programs related to generic communications and technical specifications other than to list the documents in a table. Existing augmented examinations should also be described and justified to demonstrate that the effects of aging will be adequately managed so that the intended function will be maintained for the period of extended operation.

4. Are there any relevant components in areas inaccessible for maintenance and inspection? If so, how will their aging be managed?
5. Describe how the owners group reviewed applicable generic communications and associated licensee commitments. The staff found generic communications of the aging effects of the RCS not discussed in the report, for example Bulletin 82-02 on bolting, and Generic Letter 85-20 on thermal sleeves.
6. Your report states that current activities are sufficient to manage boric acid corrosion. Are current activities, as referenced in your report, consistent with the programs developed and implemented in response to Generic Letter 88-05? If not consistent with GL 88-05, describe current activities and provide a basis for how your current programs provide reasonable assurance that the aging effect will be managed during the period of extended operation.
7. Discuss why the program with the set of attributes identified would be an effective aging management program (i.e., provide reasonable assurance that a program with the attributes described would be able to detect and correct the effects of aging before the component would reach a condition in which it could not perform its intended function under all CLB design conditions.) Explain why all six attributes identified in your report may not be necessary for a program.
8. Will continuing commitments be addressed in plant specific applications for license renewal (rather than generically)?
9. NUREG-1557 (pages B-66 and B-67) lists stress corrosion cracking as an aging effect, for a number of components in the reactor coolant system requiring aging management. For some of the identified components the issue was unresolved. Provide an aging management program for these components.
10. The industry has experienced cracking of thermal sleeves. Provided an assessment for the cracking of thermal sleeves.