

September 5, 2001

Mr. Otto L. Maynard  
President and Chief Executive Officer  
Wolf Creek Nuclear Operating Corporation  
Post Office Box 411  
Burlington, KS 66839

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION RE: RISK-INFORMED INSERVICE  
INSPECTION APPLICATION FOR WOLF CREEK GENERATING STATION  
(TAC NO. MB1206)

Dear Mr. Maynard:

By letter dated February 15, 2001 (ET 01-0009), you submitted a request for relief from Section XI examination requirements of the American Society of Mechanical Engineers (ASME) Code for inservice inspections (ISI) of Class 1 and 2 piping welds. The proposed alternative of a risk-informed ISI program is to provide an acceptable level of quality and safety in accordance with 10 CFR 50.55a(a)(3)(i).

The enclosed information is needed for the staff to complete its review of your application. To expedite the staff's review to meet the agreed upon schedule, the request for additional information was provided to your staff by e-mail on or about August 15, 2001. Any difference between the enclosed questions and the e-mail is editorial. In a call on the questions with your staff, they agreed to submit the responses to the questions by September 28, 2001. If the responses are submitted by that date, the staff expects to issue its evaluation on schedule. If you have any questions, contact me, lead project manager, at 301-415-1307, or at [jnd@nrc.gov](mailto:jnd@nrc.gov) through the internet.

Sincerely,

**/RA/**

Jack Donohew, Senior Project Manager, Section 2  
Project Directorate IV  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-482

Enclosure: Request for Additional Information

cc w/encl: See next page

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**NRR-088**

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Wolf Creek Generating Station

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REQUEST FOR ADDITIONAL INFORMATION  
WOLF CREEK NUCLEAR OPERATING CORPORATION  
WOLF CREEK GENERATING STATION  
RISK-INFORMED INSERVICE INSPECTION  
DOCKET NO. 50-482

The following are questions on the risk-informed inservice inspection (RI-ISI) submittal dated February 15, 2001, for relief from Section XI examination requirements of the American Society of Mechanical Engineers (ASME) Code for Class 1 and 2 piping welds at Wolf Creek Generating Station (WCGS):

1. Will the RI-ISI program be updated every 10 years and submitted to the NRC consistent with the current ASME XI requirements?
2. Under what conditions will the RI-ISI program be resubmitted to the NRC before the end of any 10-year interval?
3. Page 8 of your submittal presents the criteria for engineering evaluation and additional examinations if unacceptable flaws or relevant conditions are found during examinations. The submittal states that the evaluation will include whether other elements in the segment or segments are subject to the same root cause conditions. The submittal further states that additional examinations will be performed on these elements up to a number equivalent to the number of elements required to be inspected on the segment or segments initially. Please address the following:
  - a. Please clarify the term "initially." Specifically, does it refer to inspections planned for the current outage or the current interval?
  - b. Please clarify how will the elements be selected for additional examinations. Specifically, please verify that the elements will be selected based on the root cause or damage mechanism and include high risk significant as well as medium risk significant elements (if needed) to reach the required number of additional elements.
4. Page 4 of your submittal states that a deviation to EPRI RI-ISI methodology has been implemented in the failure potential assessment for thermal stratification, cycling and striping (TASCS). Please state if your revised methodology for assessing TASCS potential is in conformance with the updated criteria described in the EPRI letter to NRC dated March 28, 2001. Also, please confirm that as stated in the subject letter, once the final material reliability program (MRP) guidance has been developed, the RI-ISI program will be updated for the evaluation of susceptibility to TASCS, as appropriate.

5. Page 13 of your submittal states that WCGS is in the second period of the second interval. The submittal further states that 33 percent of the ASME XI examinations have been completed thus far, and therefore 67 percent of the RI-ISI examinations will be performed during the remaining interval so that 100 percent of the selected examinations are performed during the course of the interval. Please specify which 67 percent of the RI-ISI examinations will be performed and what will be the basis of the selection.
6. The NRC safety evaluation (SE) on the WCGS Individual Plant Evaluation (IPE) states that, in their revised IPE human reliability analysis (HRA) submitted to the staff on May 30, 1996, the licensee identified and performed a HRA for a set of five miscalibration actions. However, the staff also noted that the licensee did not provide a basis as to why these were the only five events identified for analysis. What is the basis as to why more miscalibration events were not modeled? Were more miscalibration events modeled in updates to the WCGS probabilistic risk assessment (PRA)?
7. The NRC SE on the Wolf Creek IPE further states that the licensee's revised HRA analysis does not identify and analyze time-critical actions (actions where the difference between the time available and the time required to perform the actions is short and the possibility exists for the operators to fail to accomplish the actions in time is significant). The staff also states that the licensee provides some information concerning the time available for performing actions, but the licensee does not provide information concerning the time required to accomplish the actions. Have more recent updates in the Wolf Creek PRA improved the modeling of time in recovery actions that must be performed within a very short time?
8. The NRC SE on the WCGS IPE also states that the licensee identified five modifications in their IPE that would decrease core damage frequency (CDF), if implemented. Two of these items were credited in the IPE, although they had not yet been implemented. Have all of the five modifications been implemented and does the current PRA reflect the implementation of these modifications?