

WOLF CREEK

NUCLEAR OPERATING CORPORATION

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U. S. Nuclear Regulatory Commission
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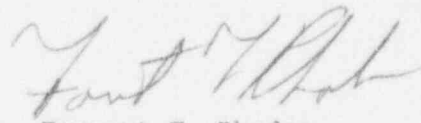
Reference: Letter KMLNRC 85-185 dated July 24, 1985 from
G. L. Koester, KG&E, to NRC
Subject: Docket No. 50-482: Change in Commitment Associated
to Licensee Event Report 85-046-00

Gentlemen:

This letter provides a change in commitment associated to Licensee Event Report (LER) 85-046-00. In response to an Engineered Safety Feature actuation event which was reported in LER 85-046-00, a commitment was made to develop a program to periodically check the Steam Generator Feedwater Check Valve leakage rates. This commitment has been reevaluated and WCNOG has determined that other maintenance and inspection programs will provide assurance that the valves will fulfill their design function. The attachment to this letter provides further discussion and evaluation of this change in commitment.

If you have any questions concerning this matter, please contact me at (316) 364-8831 extension 4002 or Mr. Richard D. Flannigan at extension 4500.

Very truly yours,


Forrest T. Rhodes

FTR/jra

250115

Attachment

cc: L. J. Callan (NRC), w/a
D. D. Chamberlain (NRC), w/a
J. F. Ringwald (NRC), w/a
J. C. Stone (NRC), w/a

TE22

Evaluation of Change to Commitment Associated to the Surveillance
of Steam Generator Feedwater Check Valve Leakage

LER 85-046-00 was generated to report the occurrence of a steam generator drain down to the condenser by way of the feedwater system. The evaluation of this event indicated the root cause of the event to be the feedwater system lineup. During this event the Feedwater Isolation Valves (FWIVs) were maintained open while steam generator pressure was slightly above the feedwater header pressure. This operating condition allowed flow from the steam generator to the condenser by way of the feedwater system (reverse flow through the Steam Generator Feedwater Check Valve). Subsequent to this transient the operating procedures were revised to prevent re-occurrence of this condition by ensuring the FWIVs are closed when steam generator pressure is above the feedwater system pressure. In addition, WCNOC committed to test the Feedwater Check Valves to ensure operability by measuring back-leakage.

This change will delete the commitment made in LER 85-046-00 to test the subject Feedwater Check Valves for back-leakage on a periodic basis. Results of the periodic testing have shown no negative trends in the valves' performance. These check valves are currently part of WCNOC's Check Valve Reliability Improvement program. This program as well as the ASME Inservice Testing program, ensures internal inspections, performance monitoring and non-intrusive testing are performed on Feedwater Check Valves. Internal inspections, open/closure testing and non-intrusive testing of the Feedwater Check Valves provide greater operability and reliability information. These program requirements also provide greater assurance that the Feedwater Check Valves will perform their intended design function than would be detected by reverse flow testing.

An evaluation has been performed to confirm the acceptability of removing the requirement to test Feedwater Check Valves V120, V121, V122, and V123 for back leakage. During the event the leakage rate through the check valve was determined to be well below the values specified in the loss of feedwater accident analysis. However, this evaluation assumes that all four Feedwater Check Valves fail to seat, allowing back leakage and steam generator drain down to the FWIVs. This justification is based on evaluations involving the Updated Safety Analysis Report (USAR) Chapter 15 analyses requiring auxiliary feedwater to provide long-term core cooling (i.e., Feedwater Line Break, Loss of Normal Feedwater, and Loss Of Non-Emergency AC). The evaluation shows that current analyses for these events bound the cases in which excessive steam generator mass depletion due to back leakage through the main feedwater line check valves is considered. The evaluation also confirms that there is no increase in transient specific calculations of fuel rod failure. The evaluation and analyses support the conclusion that all safety analysis acceptance criteria continue to be met.

Since this evaluation has been shown to produce less limiting results than the current USAR analyses, the probability of occurrence and the consequences of an accident evaluated previously in the USAR are not increased and the proposed test change does not affect any of the mechanisms postulated in the USAR to cause LOCA or non-LOCA design basis events. The evaluation confirms that the USAR conclusions remain valid for the proposed change since the current analyses have been shown to remain bounding. On these bases it is concluded that the probability and consequences of the accidents previously evaluated in the USAR are not increased. Therefore, it is also concluded that there is no reduction to the currently analyzed margin of safety.