OYSTER CREEK NUCLEAR GENERATING STATION

PROVISIONAL OPERATING
LICENSE NO. DPR-16

TECHNICAL SPECIFICATION
CHANGE REQUEST NO. 172
DOCKET NO. 50-219

Applicant submits by this Technical Specification Change Request No. 172 to the Oyster Creek Nuclear Generating Station Technical Specifications, modified pages 4.5-4 and 4.5-13.

By: E E Fitzpatrick
E. E. Fitzpatrick
Vice President and Director
Oyster Creek

Sworn to and Subscribed before me this 21st day of June 1988.

Diana M. DeBlasio
A Notary Public of New Jersey

DIANA M. DeBLASIO
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires 6-3-91

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No Significant Hazards Determination

1.0 Introduction

In accordance with 10CFR50.91, GPUN has evaluated, using the standards of 10CFR50.72, the proposed changes to the Technical Specifications to determine whether a significant hazards consideration exists.

2.0 Proposed Changes

The proposed changes delete the requirement for a daily exercise of the Main Steam Isolation Valves (MSIVs). The Basis has also been changed to reflect the deletion of this requirement. Specifically, these changes are as follows:

2.1 Section 4.5.I.3.a has been deleted and section 4.5.I.3.b has been incorporated in section 4.5.I.3.

2.2 The basis for MSIV Testing has been revised to reflect the requirements of the ASME Boiler and Pressure Vessel Code, Section XI, 1974 edition with winter 1973 addendum.

3.0 Basis for No Significant Hazards Determination

The changes described above have been evaluated in accordance with the standards provided in 10CFR50.92. The results of this evaluation are as follows:

3.1 Section 4.5.I.3.a

(1) The proposed change will not involve a significant increase in the probability or consequence of an accident previously evaluated. This change results in deletion of the daily exercise of the MSIVs. Quarterly valve operability testing will be maintained as presently required. Such testing is in accordance with the ASME Boiler and Pressure Vessel Code, Section XI, 1974 edition with winter 1973 addendum which is approved under 10CFR50.55a and provides sufficient indication of valve reliability. Daily cycling of the MSIVs results in accelerated wear of the upper rib and poppet pad which may result in degradation of the valve seat tightness which is counter productive in assuring valve reliability.

The daily test is accomplished by slow closure which is not representative of the valve response when performing its design function; therefore, the daily test is not indicative of valve response during an actual event. Elimination of this testing will not result in an increase of the probability of valve failure during accidents previously evaluated since the quarterly test verifies the capability of the valve to accomplish its design function.

(2) The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed change only eliminates the daily exercise and does not result in any change to the system configuration or function. Therefore, there is no change to the design function or actuating logic. Valve reliability will be demonstrated during the required quarterly testing which remains unchanged.

(3) The proposed change does not involve a significant reduction in the margin of safety. MSIV operability is assured by performance of the quarterly functional testing and is not enhanced by the daily exercise to the 95% open position. Such daily testing is accomplished by slow closure which does not represent the fast closure capability of the valves. Daily cycling in this manner is excessive and results in unnecessary wear on the MSIV internals. Since the quarterly functional testing assures valve operability, as in the past, the margin of safety is not reduced and unnecessary wear on valve internals is eliminated.

3.2 Sections 4.5.I.3.b and 4.5.I.3

Section 4.5.I.3.b has been incorporated into section 4.5.I.3. The technical requirement remains unchanged. Therefore, this change is purely administrative and does not involve any increase in the probability or consequences of an accident previously evaluated, does not create the possibility of a new or different kind of accident, nor does it result in a decrease in the margin of safety.

4.0 Conclusion

In accordance with 10CFR50.91 the proposed change does not result in a significant hazard based on the standards of 10CFR50.92. Furthermore, the approved Standard Technical Specification (STS) for BWRs do not require daily exercising of the MSIVs in recognition that quarterly testing provides sufficient demonstration of valve reliability. This position is further supported by the ASME Boiler and Pressure Vessel Code which does not require daily exercising of such valves.

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Applicant hereby requests the Commission to change Appendix A of the above-captioned license as follows:

1. Section to be Changed:

   4.5

2. Extent of Change

   Eliminate section 4.5.3.I.(a) and revise the basis for the technical specification on page 4.5-13.

3. Changes Requested

   The requested changes are shown on the attached Technical Specification pages 4.5-4 and 4.5-13.

4. Discussion

   Presently, Technical Specification 4.5.3.I(a) requires that the MSIVs be exercised to the 95% open position on a daily basis. This technical specification is overly restrictive and should be eliminated for the following reasons:

   1. The ASME Boiler and Pressure Vessel Code, Section XI, 1974 edition, with winter 1973 addendum prescribes that category A and B valves shall be "exercised" at least once every 3 months. Based on the code there is no need it perform the 95% open surveillance since the quarterly functional surveillance (Technical Specification 4.5.e.I(b)) meets the intent of the code.

   2. In light of item 1 above, the current daily frequency may prove to be counter-productive as it may accelerate upper rib and poppet pad wear which may possibly lead to degradation of seat tightness.

   3. A computerized search of Oyster Creek LER's (submitted from 1978 through 1987) found no incidents where the valves failed the daily test. However, on April 21, 1988, MSIV NZ03A did not reach the 95% open position and thus failed the daily test. Plant power was reduced to below 40% and the valve was successfully tested using the quarterly full closure test method. This further demonstrates that the daily test is not a true indication of valve operability. Therefore, the daily test has not identified any valve deficiencies or corrective actions to improve valve reliability.

In addition, the daily test is performed by slow closure which is different from the design of the valves (fast closure - to completely close in 3 to 10 seconds). In actuality the quarterly functional test (technical specification 4.5.e.I(b)) provides a better indication of the reliability of the valves to perform their design function.

4. In light of items 1, 2, and 3 the present daily test represents an unnecessary challenge on the operators. During the surveillance the operator must divert his attention to the test. In addition, the surveillance unnecessarily reduces the margin to an RPS initiation. If the MSIV travels past 95% open to 90% open, a half scram occurs. Plant technical specification log sheet records indicate that this occurred 24 times in the period between February 1, 1987 and October 1, 1987. This is clearly not an effective unnecessary scram frequency reduction practice.

5. Presently, other BWR plants similar to Oyster Creek are not required to conduct such testing, and the Standard Technical Specifications for BWRs do not require any additional testing other than specified by the ASME code.