APPLICATION FOR AMENDMENT

TO

FACILITY OPERATING LICENSE NO. NPF-3

FOR

DAVIS-BESSE NUCLEAR POWER STATION

UNIT NO. 1

Enclosed are forty-three (43) copies of the requested changes to the Davis-Besse Nuclear Power Station Unit No. 1 Facility Operating License No. NPF-3, together with the Safety Evaluation for the requested change.

The proposed changes include Section 3.6.1.2, 4.6.1.2 and Bases.

By /s/ R. P. Crouse
Vice President, Nuclear

Sworn and subscribed before me this 20th day of November, 1984.

/s/ Laurie A. Hinkle, nee (Brudzinski)
Notary Public State of Ohio
My Commission Expires May 16, 1986

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Docket No. 50-346
License No. NPF-3
Serial No. 1103
November 20, 1984

Attachment

I. Changes to Davis-Besse Nuclear Power Station Unit 1, Appendix A Technical Specifications 3.6.1.2, 4.6.1.2 and Bases.

A. Time required to Implement. This change is to be effective upon NRC approval.

B. Reason for Change (Facility Change Request 83-097 Rev. B). In response to NRC request dates December 3, 1982 (Log No. 1143) requesting special testing to detect excessive resilient seal deterioration.

C. Safety Evaluation
(See Attached)

D. Significant Hazard Consideration
(See Attached)

SAFETY EVALUATION

This amendment request is written to amend the Technical Specification to include a special leakage test requirement for the containment purge and exhaust isolation valve penetrations.

The safety function of the containment purge and exhaust isolation valves is to isolate the containment upon a design basis LOCA, and the safety function of the Surveillance Requirement of the special leak rate test for these valves is to insure operability by verifying that gross seal failure has not occurred on the valves.

The current Technical Specification requires that the containment isolation valves be leak tested once for each operating cycle during refueling. The NRC requested in their letter that these valves be tested more frequently to determine if excessive degradation of their seats has occurred. The concern indicated in the NRC referenced letter is that the gross seal failures could happen in the 48" butterfly type isolation valves everytime when they are opened which could result in the allowable leakage rate limits being exceeded for these valves. Further communications with the NRC staff indicated that the required special tests would be in addition to the type B or C tests in existing Technical Specification requirements. Since it is only intended to detect gross seal failures the special tests to be performed at a higher frequency can be a less stringent test.

It is proposed that a special test be performed every time when the valves are opened. TED has commitment to the NRC that the purge valves will not be used (opened) during modes 1, 2, 3 and 4. Therefore the proposed test is most likely to be performed in mode 5. This Amendment Request does not alter this existing commitment to the NRC. In addition, the NRC requested that the special test should be performed at six month intervals even if they have not been used. This requirement could potentially result in high personnel radiation exposures in DB-1 because the test would require access to the annulus area which has a radiation level in excess of 1 R/hr during power operation. The NRC has since agreed that we may do the test when the plant is not in modes 1 and/or 2 for more than 72 hours provided that the special test or the type B or C tests have not been performed in the previous six months.

This test as proposed will be sufficient to ensure the integrity of seals on the valves seats. The test is to be conducted by pressurizing the section of piping including one valve inside and one valve outside the containment to 20 psig or greater. The acceptance criteria for the leakage rate per penetration shall be less than 0.15 La (150,000 standard cubic centimeters per minute), which is considerably lower than the amount allowed for the combined tests. The leakage rate can be measured by either constant pressure method or by the pressure decay method.

Since this special test is an addition to the existing Technical Specification requirements, this change does not degrade the safety function. Based on the above, it is concluded that this change does not present any unreviewed safety questions.

Significant Hazard Consideration

This amendment request is to include a special leakage test requirement for the containment purge and exhaust isolation valve penetration does not represent a Significant Hazard.

The current Technical Specification requires that the containment isolation valves be leak tested once for each operating cycle during refueling. The NRC requested that these valves be tested more frequently to determine if excessive degradation of their seats has occurred. The concern that the gross seal failures could occur in the 48" butterfly type isolation valves everytime when they are opened which could result in the allowable leakage rate limits being exceeded for these valves. Further communications with the NRC staff indicated that the required special tests would be in addition to the type B or C tests in existing T.S. requirements. Since it is only intended to detect gross seal failures the special tests to be performed at a higher frequency can be a less stringent test.

It is proposed that a special test be performed every time when the valves are opened. TED has already commitment that the purge valves will not be used (opened) during modes 1, 2, 3 and 4. Therefore the proposed test is most likely to be performed in mode 5. This amendment request does not alter this existing commitment to the NRC. In addition, the NRC requested that the special test should be performed at six month intervals even if they have not been used. This requirement could potentially result in high personnel radiation exposures in DB-1 because the test would require access to the annulus area which has a radiation level in excess of 1 R/hr during power operation. The NRC has since agreed that we may do the test when the plant is not in modes 1 and/or 2 for more than 72 hours provided that the special test or the type B or C tests have not been performed in the previous six months.

This test as proposed will be sufficient to ensure the integrity of seals on the valve seats. The test is to be conducted by pressurizing the section of piping including one valve inside and one valve outside the containment to 20 psig or greater. The acceptance criteria for the leakage rate per penetration shall be less than 0.15 La (150,000 standard cubic centimeters per minute), which is considerably lower than the amount allowed for the combined tests. The leakage rate can be measured by either constant pressure method or by the pressure decay method.

The Commission has provided guidance concerning the application of the standards in 10CFR50.92 by providing certain examples (48 FR 14870). One of the examples of actions involving no significant hazards considerations related to a change that constitutes an additional limitation, restriction, or control not presently included in the technical specifications: for example, a more stringent surveillance requirement. (example ii)

The testing for gross seal failure as proposed by this amendment request is in addition to the Appendix J requirement contained in present Technical Specifications.

Based on the above information, this amendment request would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

Therefore, based on the above and the Safety Evaluation, the requested license amendment does not present a Significant Hazard.

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