

ATTACHMENT

MILLSTONE NUCLEAR POWER STATION, UNIT NO. 1  
PROPOSED REVISIONS TO TECHNICAL SPECIFICATIONS  
REQUIRED FOR RELOAD 7 REFUELING OUTAGE

SEPTEMBER, 1980

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## DESCRIPTION OF CHANGES AND SAFETY EVALUATION SUMMARY

The proposed Technical Specification changes the limits on torus water volume from a range of 92,000 feet<sup>3</sup> to 94,000 feet<sup>3</sup>, to a new range of 98,000 feet<sup>3</sup> to 100,400 feet<sup>3</sup> and the downcomer lengths would be changed to result in a range of submergence from 3.0 feet to 3.33 feet with a 1.0 psid between the drywell and wetwell air space. The previous range was 4.7 to 4.9 feet.

Although the dead (water) load of the torus increases, the controlling load combinations, involving LOCA and/or SRV steam condensation, on the torus and torus internals is reduced by the change.

The increased water volume in the torus provides a greater heat sink but results in a reduced volume for storage of non-condensable gases. The effect on drywell and wetwell air space pressure during a LOCA is reported in the GE Topical Report, NEDO-24575 and is a peak of approximately 42 psig and 32 psig, respectively; well below the original design pressure of 62 psig. The increased water volume and potential for increased wetwell air space pressure tends to slightly increase the NPSH on the pumps that draw from the torus. This is a very small but beneficial change.

NUREG-0661 (Section 3.12.6) addresses downcomer submergence and potential pool stratification and concludes ". . . that a minimum initial downcomer submergence of 3 feet is acceptable and there is sufficient conservatism in the containment response analysis techniques to accommodate the effects of thermal stratification".

Sections 3.12.1 and 3.12.6 of NUREG-0661 address the potential downcomer uncovering resulting from seismic slosh and conclude that such waves would not result in uncovering of the downcomers with a 3-foot submergence.

The increased water volume provides an increased heat sink for SRV steam condensation, both bulk assuming mixing of the torus water and local to any one quencher.

The decreased downcomer submergence reduces the pool swell loads that could be imposed on the torus in the initial stages of a LOCA. This load reduction is discussed in Section 3.12.6 of NUREG-0661.

The change in torus water volume and downcomer submergence length does not pose any unreviewed safety question in that it does not increase the probability or consequence of any accident, and it does not reduce the margin to safety as defined in Technical Specifications.

The offsite Nuclear Review Board has reviewed and approved this change and concurs with the above information.