



Wendell P. Johnson
Vice President

December 6, 1984

Public Service of New Hampshire
NEW HAMPSHIRE YANKEE DIVISION

SBN- 738
T.F. B4.2.5

United States Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, PA 19406

Attention: Dr. Thomas E. Murley
Regional Administrator

References: (a) Construction Permits CPPR-135 and CPPR-136,
Docket Nos. 50-443 and 50-444

(b) IE Bulletin No. 84-03 "Refueling Cavity
Water Seal", dated August 24, 1984

Subject: Response to IE Bulletin No. 84-03; Refueling
Cavity Water Seal

Dear Sir:

We have evaluated the applicability of the subject Bulletin to the Seabrook refueling cavity water seal design.

The refueling cavity water seal design described in the subject Bulletin utilizes an active inflatable seal, while the Seabrook design utilizes a passive compressed gasket seal. Accordingly, this Bulletin does not apply to Seabrook as we further elaborate below:

The Seabrook refueling cavity water seal design (UE&C Dwg. 805556: attached) consists of a 3'-6" wide by 2-3/8" thick flat metal annular disk bolted to a surface in the refueling canal on the OD (36 bolts) and to a flat metal ledge on the reactor vessel on the ID (36 bolts). Each seating surface is sealed by two captured-ring gaskets which are compressed by bolt torquing to specified values. Between each set of ring gaskets, a test connection is provided to allow the gaskets to be pressure tested for leakage prior to the filling of the refueling canal. During refueling, the static head increases the compression loading on the gasket, thus increasing the sealing capability.

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In summary, we conclude that a gross failure of the Seabrook refueling cavity water seal is not a credible event. This conclusion is based on the following design features:

1. The loading on the seal ring disc under all postulated events is conservatively low relative to the design loading.
2. The seal gaskets are captured ring type and are both passive and redundant.
3. After seal ring installation and before flooding the refueling cavity, the integrity of the redundant seal gaskets is assured through an air test.
4. The static load on the seal ring after flooding provides a compressive force on the seal gaskets, further assuring a tight seal.

We believe this response to be complete; however, if you have any questions, do not hesitate to contact us.

Very truly yours,

W.P. Johnson
 W. P. Johnson
 Vice President

Original:
 U.S. Nuclear Regulatory Commission
 Document Control Desk
 Washington, DC 20555

cc: Atomic Safety and Licensing Board Service List

COMMONWEALTH OF MASSACHUSETTS)
)
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Then personally appeared before me, W.P. Johnson, who, being duly sworn, did state that he is a Vice President of Public Service Company of New Hampshire, that he is duly authorized to execute and file the foregoing request in the name and on the behalf of Public Service Company of New Hampshire and that the statements therein are true to the best of his knowledge and belief.



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 A. C. Legendre Notary Public
 My Commission Expires August 5, 1988

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