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SUBJECT: Informs staff that licensee has completed review of NRC SER for B&WOG util resolution guidance document addressing ECCS suction strainer blockage.

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ENERGY NORTHWEST

P.O. Box 968 □ Richland, Washington 99352-0968

August 19, 1999
GO2-99-160

Docket No. 50-397

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

Gentlemen:

Subject: **WNP-2, OPERATING LICENSE NPF-21
REVIEW OF NRC SAFETY EVALUATION REPORT FOR ECCS
SUCTION STRAINER UTILITY RESOLUTION GUIDANCE**

- References: 1) Letter dated August 20, 1998, NRC to R Sgarro, (Pennsylvania Power and Light), "Safety Evaluation for NEDO-32686, Rev. 0, Utility Resolution Guidance Document for ECCS Suction Strainer Blockage"
- 2) Letter dated March 26, 1999, J Cushing (NRC) to JV Parrish (SS), "Response to NRC Bulletin 95-02, Unexpected Clogging of a Residual Heat Removal (RHR) Pump Strainer While Operating in Suppression Pool Cooling Mode, Washington Public Power Supply System - Nuclear Project No. 2 (WNP-2) (TAC No. M93891)"

One purpose of this letter is to inform the staff that we have completed our review of the NRC's safety evaluation report (SER) for the BWR Owners' Group Utility Resolution Guidance (URG) document addressing emergency core cooling system (ECCS) suction strainer blockage (Reference 1). A second purpose is to inform the staff of a change in plans for performing suppression pool cleaning and suppression pool and ECCS suction strainer cleanliness inspections.

The URG document was used by Energy Northwest as the basis for much of the design of replacement ECCS strainers that were installed during our 1998 refueling outage. Energy Northwest chose to deviate from the URG in some areas, electing to use more conservative approaches in response to early comments from the staff (i.e., debris transport factors, selection of break locations, and strainer head loss methodology). Adopting a more conservative approach allowed Energy Northwest to avoid some of the SER's main criticisms of the URG document. Other criticisms of the URG document address materials and analysis techniques not used by Energy Northwest. Energy Northwest's final strainer design is consistent with the NRC's SER.

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REVIEW OF NRC SAFETY EVALUATION REPORT FOR ECCS SUCTION STRAINER UTILITY RESOLUTION GUIDANCE

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The staff also recently issued a safety evaluation (Reference 2) related to Energy Northwest's response to NRC Bulletin 95-02. The staff agreed with our conclusions that ECCS pumps were operable based on the cleanliness of the suppression pool and ECCS suction strainers, observed ECCS pump performance, and suction strainer inspections. The staff also concluded that our evaluation of our foreign material control program and the establishment of a suppression pool cleaning program provide assurances to prevent long term debris accumulation in the suppression pool. The staff noted in Reference 2 that vacuuming of the suppression pool was scheduled for the 1999 refueling outage. We have since concluded that it will not be necessary to vacuum the suppression pool until the Spring 2001 refueling outage. As previously mentioned in a June 25, 1998, letter to the staff¹, periodic vacuuming of sediment in the suppression pool is on a four-year interval. In addition, the staff acknowledged in Reference 2 that suppression pool cleaning (vacuuming) will be conducted every four years.

Vacuuming of the suppression pool was performed in 1994 and in Spring 1997. The results of the vacuuming were used to establish a suppression pool dry sediment generation rate of approximately 46 pounds/year. Energy Northwest used an assumed sediment generation rate of 150 pounds/year in the strainer sizing calculation to support installation of the new ECCS suction strainers in 1998. Based upon the assumed sediment generation rate, the calculation states that suppression pool vacuuming is to be performed on a four-year interval, unless justified otherwise by additional sediment generation rate data gathered during future desludging (vacuuming) activities.

The strainer sizing calculation indicates that strainer performance is acceptable with up to 650 pounds of dry sediment deposited in the suppression pool. Deferral of vacuuming until 2001 is justified based on our present sediment generation rate. In the future, the four-year vacuuming interval will be adjusted based on sediment generation rate data obtained through vacuuming.

Visual inspections of the suppression pool and ECCS suction strainers for proper cleanliness will continue to be performed. However, contrary to previous information provided by Energy Northwest and documented in Reference 2, these inspections will need to occur on a refueling schedule basis, rather than an annual basis, in order to accommodate future 18 and 24 month refueling cycles. We had informed the staff in previous correspondence² of our intention to extend strainer cleanliness inspections to a once per refueling cycle basis. We consider this an acceptable schedule based on past observed cleanliness of the suppression pool and ECCS suction strainers, and based on the installation of new ECCS suction strainers in 1998. In addition, as noted in previous correspondence with the staff³, cleanliness inspections

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- 1 Letter dated June, 25, 1998, JV Parrish to NRC, "Response to NRC Bulletin 96-03, Potential Plugging of Emergency Core Cooling Suction Strainers by Debris in Boiling Water Reactors"
 - 2 Letter dated November 4, 1996, JV Parrish to NRC, "Response to NRC Bulletin 96-03, Potential Plugging of Emergency Core Cooling Suction Strainers by Debris in Boiling Water Reactors"
 - 3 Letter dated June, 25, 1998, JV Parrish to NRC, "Response to NRC Bulletin 96-03, Potential Plugging of Emergency Core Cooling Suction Strainers by Debris in Boiling Water Reactors"

**REVIEW OF NRC SAFETY EVALUATION REPORT FOR ECCS SUCTION
STRAINER UTILITY RESOLUTION GUIDANCE**

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have been performed during each of the past three years. We intend to re-evaluate the frequency for performing cleanliness inspections based on the results of the cleanliness inspection to be performed during our 1999 refueling outage.

Should you have any questions or desire additional information regarding this issue, please call me or Mr. PJ Inserra at (509) 377-4147.

Respectfully,



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Manager, Regulatory Affairs
Mail Drop PE20

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