## Duquesne Light Company Beaver Valley Power Station PD Box 4

Shippingport, PA 15077-0004

January 18, 1991

vice President - Nuclear Group

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

Reference: Beaver Valley Power Station, Unit No. 1

Docket No. 50-334, License No. DPR-66

NRC Bulletin 88-11

## Gentlemen:

In our December 21, 1989 letter, we submitted the results of the inspections performed for Item 1.a of Bulletin 88-11, "Pressurizer Surge Line Thermal Stratification", we also stated that we would complete the Beaver Valley Unit 1 plant specific analysis for Item 1.d of the Bulletin by January, 1991. Accordingly, enclosed are:

- Five (5) copies of WCAP-12727, entitled, "Evaluation of 1. Thermal Stratification for the Beaver Valley Unit 1 Pressurizer Surge Line (Proprietary)."
- Five (5) copies of WCAP-12728, entitled, "Evaluation of Thermal Stratification for the Beaver Valley Unit 1 Pressurizer Surge Line (Non-Proprietary)."
- A Westinghouse Application for Withholding, CAW-90-086, Accompanying Affidavi., Proprietary Information Notice, and Copyright Notice.

Item 1 contains information proprietary to Westinghouse Electric Corporation, it is supported by an affidavit signed by Westinghouse, the owner of the information. This affidavit sets forth the basis on which the information may be withheld from public disclosure by the Commission and addresses with specificity the considerations listed in paragraph (b) (4) of Section 2.790 of the Commission's regulations.

Accordingly, it is respectfully requested that the information which is proprietary to Westinghouse be withheld from public disclosure in accordance with 10 CFR Section 2.790 of the Commission's regulations. Correspondence with respect to the supporting Westinghouse affidavit should reference CAW-90-086 and should be addressed to R. A. Wiesemann, Manager Regulatory and Legislative Affairs, Westinghouse Electric Corporation, P. O. Box 355, Pittsburgh, Pennsylvania 15230-0355.

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The enclosed WCAPs review the effects of thermal stratification on the Beaver Valley Unit 1 (BV-1) pressurizer surge line with the shims removed on its pipe whip restraints. This proposed modification is based on the enclosed leak before break evaluation of the pressurizer surge line which is being submitted for NRC review and approval in accordance with General Design Criteria 4. A leak before break evaluation of the BV-1 Reactor Coolant System piping was reviewed and approved by NRC letter dated December 9, 1987. (TAC Nc. 65107).

As noted in Bulletin 88-11, thermal stratification of the pressurizer surge line causes increased thermal deflection of the line than was considered in the original plant design. Under certain conditions of high delta temperature between the pressurizer and loop piping, these deflections can be large enough for the surge line to contact its whip restraints causing potentially high piping stresses. The removal of the pressurizer surge line pipe whip restraint shims will allow the surge line to thermally deflect without contacting the whip restraints.

The enclosed leak before break evaluation of the proposed configuration demonstrates that the probability of a rupture of the BV-1 pressurizer surge line is extremely low. The BV-1 pressurizer surge line configuration is very similar to the Beaver Valley Unit 2 (BV-2) pressurizer surge line configuration which was originally licensed with an exemption from the postulated effects of a dynamic pipe rupture under the WHIPJET Program. Additionally, the enclosed evaluations are very similar to the plant specific evaluation of the BV-2 pressurizer surge line (WCAP-12093) which has been reviewed by NRC letter dated January 18, 1990 (TAC No. 72111).

Since the proposed modification will resolve the NRC Bulletin 88-11 concerns for BV-1 when implemented, we request NRC review and approval of the enclosed evaluation prior to the Eighth Refueling Outage which is scheduled to begin in April, 1991. An extended outage is required to perform the shim removal modification and a delay in NRC approval would result in the modification not being implemented for an additional fuel cycle. My staff is available to resolve any questions in an expeditious manner.

If you have any questions concerning this matter, please contact my office.

Sincerely,

J. D. Sieber Vice President Nuclear Group

Enclosures

cc: Mr. J. Beall, Sr. Resident Inspector

Mr. T. T. Martin, NRC Region I Administrator

Mr. A. W. DeAgazio, Project Manager