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Docket Nos. 50-397

Mr. R. L. Ferguson Managing Director Washington Public Power Supply System P. 0. Box 968 3000 George Washington Way Richland, Washington 99352

Dear Mr. Ferguson:

**DISTRIBUTION:** Docket File MDLynch LB#2 File DEisenhut/RPurple bcc: PRC RTedesco NS1C ASchwencer NRC PDR RAuluck Local PDR EHvlton ACRS (16) Paton, OELD IN 01 OI&E Region V **Resident Inspector** RECEIVED SHanauer RMattson APR 0 9 1982 = HThompson ET ESSELIA RESEARENT CELVESSICH RVollmer COLUMN LANAGEMENT ER RHartfield, MPA TIDC Subject: "Fast Scram" Hydrodynamic Loads on Control Rod Drive Systems

We were recently informed by a vendor of control rod drive (CRD) systems of a potential reportable condition applicable to boiling water reactors (Enclosure 1). Specifically, this vendor indicates that its analysis of the hydrodynamic loads in the piping and on the supports of a particular CRD system for a "worst case" condition resulted in structural loads which were larger than some of the previous design loads for this system. These larger loads result from a rapid actuation of the CRD.

The conditions assumed by this vendor for its "worst case" calculation of the hydrodynamic loads were: (1) a design basis opening time of 20 milliseconds for the inlet line scram valve; and (2) a scram during the start-up phase of the plant with no pressure in the reactor vessel. The vendor also stated that its modeling of the CRD system may not be appropriate which could cause the calculated hydrodynamic loads to be insufficiently accurate.

Our concern in this matter is that the hydrodynamic loads in the CRD system for your facility may not have been properly evaluated. Accordingly, we will continue to regard this matter as an open item on your docket until we can resolve this issue. As part of our continuing review of your application for an operating license, we request that you provide the following information. for your facility:

- The design basis opening time for the inlet line scram valve. 1.
- 2. An evaluation of the hydrodynamic loads in your CRD system resulting from actuation of the inlet line scram valve using the design basis opening time specified in Item 1.

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- 3. A description of the conditions and configurations of the plant which result in the maximum hydrodynamic loads in the CRD system.
- 4. A statement regarding the appropriateness of the mathematical model used to calculate the hydrodynamic loads in the CRD system resulting from a scram.

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5. A comparison of the hydrodynamic loads evaluated in Item 2 with the present design basis loads for the CRD system.

In the event that the hydrodynamic loads calculated for your facility exceed the present design basis structural loads for the CRD system, indicate which components are affected and submit a proposed plan for structurally reinforcing the affected components. Please indicate within 7 days of receipt of this letter, the date by which you can respond to our request. If you have any questions on this matter, please contact the Project Manager, R. Auluck, at (301) 492-9778.

Sincerely,

A. Schwencer, Chief Licensing Branch No. 2 Division of Licensing?

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