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Washington Public Power Supply System

P.O. Box 968 3000 George Washington Way Richland, Washington 99352 (509) 372-5000

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April 27, 1982
G01-82-0162

REGION V USE

Mr. R. H. Faulkenberry
Nuclear Regulatory Commission
Region V
1450 Maria Lane, Suite 210
Walnut Creek, California 94596



Subject: SUPPLY SYSTEM NUCLEAR PROJECTS NOS 1 AND 4
DOCKET NOS. 50-460 AND 50-513
REPORTABLE CONDITION 10CFR50.55(e)
INDUCED NEUTRON FLUX ERROR - STATUS REPORT

- Reference:
- 1) Telecon, TJ Houchins, Supply System to DF Kirsch, Region V, NRC dated November 13, 1980
 - 2) Letter, DW Mazur, Supply System to RH Engelken, NRC same subject, dated December 12, 1980
 - 3) Letter, DW Mazur, Supply System to RH Faulkenberry, NRC, same subject, dated July 28, 1981
 - 4) Letter DW Mazur, Supply System to RH Faulkenberry, NRC, same subject dated December 28, 1982

In reference 1) the Supply System reported the existence of a reportable condition to your office under the provisions of 10CFR50.55(e). References 2), 3) and 4) were interim status reports on the subject condition. The concern is related to errors in the measurement of core neutron flux during certain postulated accidents. The status of the resolution of this concern to date is as follows.

STATUS

The Project has decided following indepth reviews and correspondence with Babcock and Wilcox (B&W) to implement a hardware change to provide an alternate measurement of core power. The hardware change provides for increased conservatism in measuring core power. The change would be to measure the temperature differential (ΔT) across the core via cold and hot leg temperatures. Core power would be computed from the ΔT and pump status then auctioneered with the neutron detector output. In the case of an overcooling event the ΔT would be conservative by overestimating power. Conversely, in the case of an overheating event, the neutron detectors would be conservative by overestimating power. Thus, for either event, the maximum output would be provided to the reactor trip bistables.

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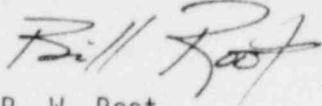
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R. H. Faulkenberry
Status Report
Page 2

April 27, 1982
G01-82-0162

B&W has been directed by the Project to proceed with the implementation of the alternate power measurement system design, analysis, and installation. The implementation schedules have not been developed as of the time of this letter. Therefore, we will continue to provide your office with semi-annual status reports on our progress.

If you have any questions or desire further information, please advise.



R. W. Root
Acting Program Director

RWR:MER:lm

cc: CR Bryant, BPA/399
EW Edwards, Bechtel/860
V. Mani, UE&C/896
V. Stello, Director of Inspection, NRC
A. Toth, NRC
FDCC/899