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SHIELDS L. DALTROFF
VICE PRESIDENT
ELECTRIC PRODUCTION

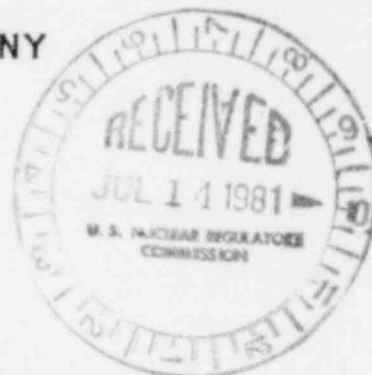
PHILADELPHIA ELECTRIC COMPANY

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July 10, 1981

Re: Docket Nos. 50-277
50-278

Mr. Thomas M. Novak
Assistant Director for Operating Reactors
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Novak:

Your letter of June 10, 1981, expressed concern over the use of filter systems in the control rod drive hydraulic system (NUREG-0619). In addition, the letter, as quoted below, requested further information regarding the proposed modifications to the CRD system.

"You have stated that replacement of carbon steel pipe in the flow stabilizer loop is not necessary because of the particular existing system configuration incorporating filters. Our objection to the use of filter systems is contained on page D-6 of NUREG-0619. Please provide justification for continued use of the filters, including minimum particle size, alarm setpoint, location of alarm, procedural changes to incorporate filter maintenance, etc."

Response

We have reviewed the NRC concern over the use of filters in the CRD system, as expressed in NUREG 0619, Appendix D, and conclude that the existing modification is acceptable. The concern is that improperly maintained filters on the cooling

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water header could result in heatup of drive mechanisms and the possibility of multiple drive failures of a type not previously analyzed.

The redundant filters installed per General Electric's recommendation in SIL-200, Rev 1, prevent any carbon steel corrosion products from re-entering the flow stream to the drives via the cooling water headers. The filters are not in the primary path for the cooling water to the CRD's, and therefore cannot restrict the cooling water flow to the CRD's. The attached sketch demonstrates the location of the filters with respect to the main cooling flow and the stabilizing valves.

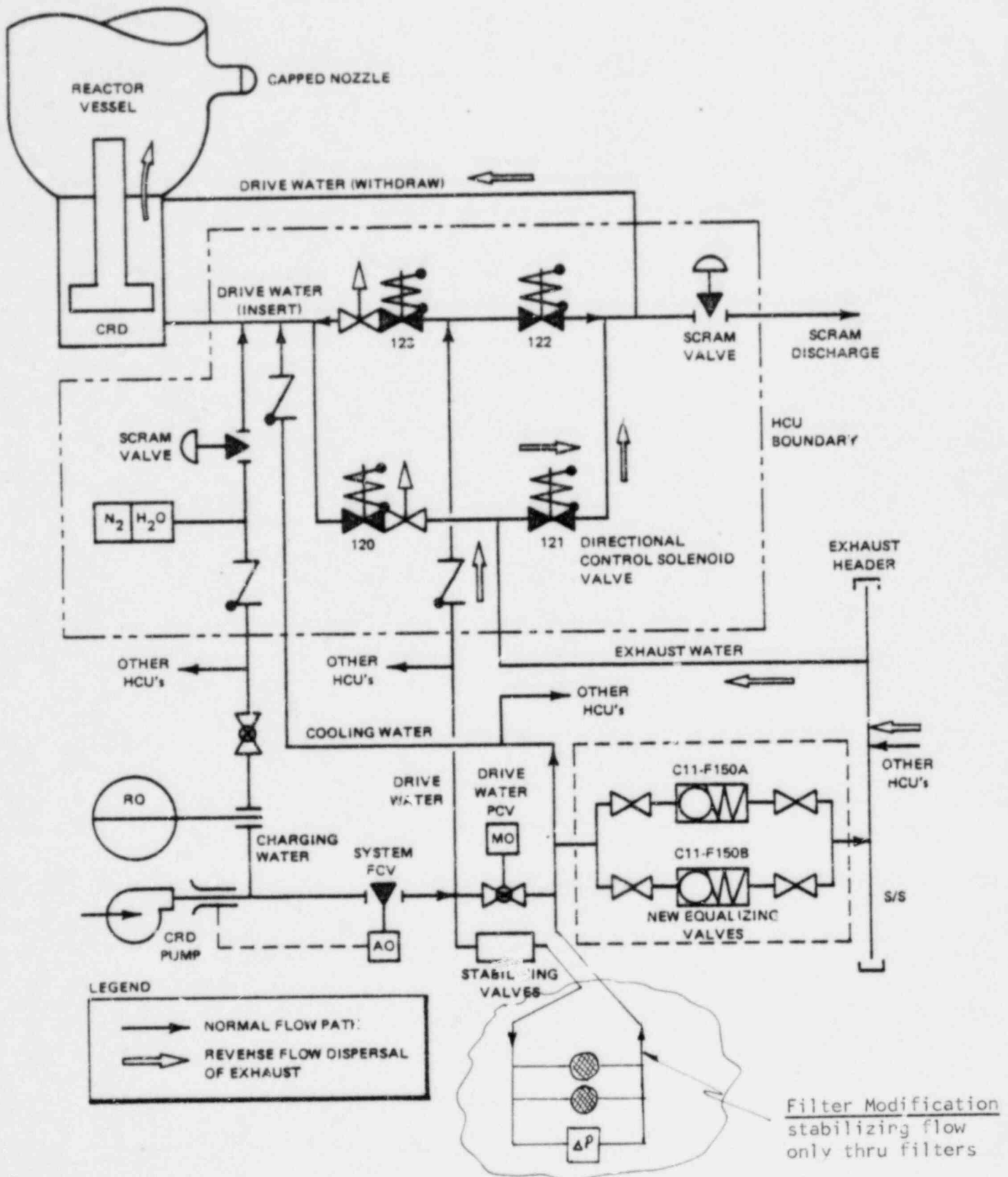
The filters selected and installed are 50 micron absolute (20 micron nominal) units, equipped with differential pressure alarms set at 5 psi that indicate high filter pressure in the control room. No procedural changes to the normal maintenance of these filters is anticipated.

We trust this satisfies the reviewer's concern and hastens approval of this modification.

Very truly yours,

A handwritten signature in cursive script, appearing to read "A. H. Gattig".

Attachment



Simplified Schematic of Modified CRD Hydraulic System