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September 10, 1981
JPN-81-68

Director of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Mr. Thomas A. Ippolito, Chief
Operating Reactor Branch No. 2
Division of Licensing

Subject: James A. FitzPatrick Nuclear Power Plant
Docket No. 50-333
Implementation of Unresolved Safety Issue A-10, BWR Nozzle Cracking

References: 1. February 20, 1981 letter J.P. Bayne (PASNY) to D.G. Eisenhut (NRC)

2. July 13, 1981 letter T.A. Ippolito (NRC) to G.T. Berry (PASNY)

Dear Sir:

Reference 1 provided to the Commission information regarding the implementation of NUREG-0619, ("BWR Feedwater Nozzle and Control Rod Drive Return Line Nozzle Cracking" issued by letter dated November 13, 1980) at the Authority's James A. FitzPatrick Nuclear Power Plant. In Reference 2 you approved the basic approach outlined in Reference 1 and requested the clarification of one item, and additional information. This letter responds to these requests.

Low Flow Controller Evaluation

The evaluation of the existing low flow controller was performed during a January 25, 1981 plant start-up. As a result, the Authority has determined that in order to meet the six characteristics described in General Electric's NEDO-21821-A report (BWR Feedwater Nozzle/Sparger Final Report, February 1980), a finer degree of flow control would be required. By changing the internal trim of the flow control valve, the

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Authority has determined that the required degree of flow control should be obtained. The Authority plans to make this change in the upcoming outage and to verify the adequacy of this modification with a preoperational test during subsequent plant start-up.

Control Rod Drive (CRD) Modifications

The Authority has re-evaluated its position regarding CRD return line re-routing and now plans to operate the system with the return line valve closed as described in Section 8.2(3) of NUREG-0619. Required modifications will be completed during the 1983 refueling outage as per Reference 1.

Interim Methods of Operation

During the period before modifications are complete, the Authority has incorporated, as part of the start-up procedure following a refueling outage, a program to flush the exhaust header. The program also includes cleaning of the insert/withdrawal line filters when there are indications of slow control rod movement. These interim measures are sufficient because, compared to the assumptions made by the General Electric Co. in their Service Information Letter (SIL) No. 200, the path of CRD water at the James A. FitzPatrick Plant between the exhaust header, stabilizing valve discharge and cooling water pressure control station discharge uses significantly less carbon steel piping.

NUREG-0619, "BWR Feedwater Nozzle and CRD Return Line Nozzle Cracking"

NUREG-0619 requires an ultrasonic inspection of the feedwater nozzle blend radii, safe ends, and bores every two outages. Initial inspections were scheduled for the Spring, 1980 outage. Extremely high radiation levels at the nozzles prevented these inspections from being conducted as planned.

The Authority is currently evaluating two alternate means for conducting this examination - decontamination of the space between the inner thermal sleeve and nozzle wall, and the use of remotely operated examination equipment. The evaluation must consider the high radiation fields previously experienced, the ALARA program, other equipment scheduled for installation in this area during the 1983 refueling outage, and if existing clearances are adequate to accomodate remote inspection equipment.

If, as a result of this evaluation, it is determined that inspection is not feasible this refueling outage, preparations will be made to ensure that it is conducted during the 1983 refueling outage.

Should you have any questions, do not hesitate to contact us.

Very truly yours,

J.P. Bayne
Senior Vice President
Nuclear Generation

cc: Mr. J. Linville
Resident Inspector
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