123 Main Street
White Plains, New York 10601
914 681.6200

New York Power Authority

J. Phillip Bayne
Executive Vice President
Nuclear Generation

September 4, 1984
JPN-84-58

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

Attention: Mr. Domenic B. Vassallo
Operating Reactors Branch No. 2
Division of Licensing

Subject: James A. FitzPatrick Nuclear Power Plant
Docket No. 50-333
Qualification of ADS Accumulators
NUREG-0737 Item II.K.3.28

Reference: 1. NRC letter, D. B. Vassallo to J. P. Bayne, dated July 16, 1984 regarding the same subject.

Dear Sir:

In Enclosure 1 to Reference 1, you requested additional information regarding the qualification of the Automatic Depressurization System (ADS) accumulators at the Authority's FitzPatrick plant. Our response to your request is included as an attachment to this letter.

Please contact Mr. J. A. Gray, Jr. of my staff if you have any additional questions.

Very truly yours,

J. P. Bayne
First Executive Vice President
Chief Operations Officer

State of New York
County of Westchester

Subscribed and Sworn to before
me this 4th day of Sept., 1984

Linda Della Donna
Notary Public

cc: Office of the Resident Inspector
U.S. Nuclear Regulatory Commission
P.O. Box 136
Lycoming, New York 13093

A046
1/1

Attachment to JPN-84-58

NEW YORK POWER AUTHORITY
JAMES A. FITZPATRICK NUCLEAR POWER PLANT

Response to NRC Request for Additional Information dated July 16, 1984 Regarding Qualification of ADS Accumulators (NUREG-0737 Item II.K.3.28).

Q1. Your letter of February 17, 1984 indicated that the accumulator system was capable of actuating the ADS valves for periods of up to 4-1/3 hours following an accident. Based on the requirements of NUREG-0737 Item II.K.3.28, it is necessary to demonstrate that the ADS valves, accumulators, and associated equipment and instrumentation meet the requirements specified in the plant FSAR and are capable of performing their functions during and following exposure to hostile environments, taking no credit for non-safety-related equipment or instrumentation. Additionally, air (or nitrogen) leakage through the valves must be accounted for to assure that enough inventory of compressed gas is available to cycle the ADS valves. If this cannot be demonstrated, it must be shown that the accumulator design is still acceptable. If reliance on back-up systems to recharge the accumulators is necessary for long term operation, (for instance, feed and bleed if shutdown cooling mode of RHR not available) clarify if the back-up system is environmentally and seismically qualified or that compensating measures are provided for long term operation (i.e. procedures for manual action, additional air or nitrogen on hand, hardware for connections readily available or installed, bases that sufficient time exist for the required manual actions). Since this system is a part of the emergency core cooling system, it must function for the long-term period of 100 days following an accident or justification be provided for the time specified for long term operation.

You are required to address in detail (a) how you meet this long-term capability requirement of 100 days following an accident or (b) the justification as to why 4-1/3 hours or less is sufficient long-term capability for your plant, or (c) provide a commitment and schedule for upgrading to the 100 day long-term capability requirement.

A1. The Authority will upgrade the FitzPatrick ADS to function for a period of 100 days following a postulated accident.

An engineering study to determine the most effective means to provide this long-term capability will be the first phase of this project. The Authority will select a modification for implementation based on the result of this study. Since the extent and scope of this modification is unknown at this time, a firm schedule cannot be established. The Authority expects to install those portions of the modification requiring drywell or torus entry to be completed during the 1986 refueling outage (currently scheduled for the fourth quarter of 1986). The balance of the modification will be completed 6 months after the end of this outage (approximately June 1987).

Q2. To insure that an acceptable leakage test is always current, please specify the interval for this periodic test. To be acceptable to the staff, the interval between tests should not exceed the interval between refueling outages. A statement indicating that a leakage test is performed once per operating cycle is not specific enough. A statement that specifies a particular point in the operating cycle such as "preceding every startup following a refueling outage," or a statement such as "the leakage test will be performed at least once every 20 months is considered acceptable.

(Twenty months is used as an example; actual period depends on normal refueling cycle plus margin.)

A2. A test of ADS accumulators check valves will be performed before the first startup after each refueling outage to assure that leakage from these valves are within acceptable limits.

Q3. Your letter of February 17, 1984 indicates that the existing ADS check valves are to be replaced because their environmental qualification cannot be confirmed. You are requested to confirm that the replacement valves are environmentally qualified.

A3. The ADS accumulator check valves will be replaced with environmentally qualified valves in accordance with our commitments as described in our February 17, 1984 (JPN-84-13) letter.