

January 23, 1991

Docket No. 50-333

Mr. John C. Brons
Executive Vice President - Nuclear Generation
Power Authority of the State of New York
123 Main Street
White Plains, New York 10601

Dear Mr. Brons:

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION - STATION BLACKOUT
JAMES A. FITZPATRICK (TAC NO. 68546)

Based on our review of your response to 10 CFR 50.63, "Loss of All Alternating Current Power" - Station Blackout, dated April 17, 1989 (JPN-89-018) and supplementary information letter dated March 29, 1990, for the James A. FitzPatrick Nuclear Power Plant, we have identified the need for additional information in order to complete the review. We, therefore, request that you provide a response to the questions enclosed.

The reporting and/or recordkeeping requirements of this letter affect fewer than ten respondents; therefore, OMB clearance is not required under PL 96-511.

Sincerely,

Original signed by:

David E. LaBarge, Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosure:
Request for Additional Information

cc w/enclosure:
See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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Sincerely,

A handwritten signature in dark ink, appearing to read "De LaBarge".

David E. LaBarge, Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosure:
Request for Additional Information

cc w/enclosure:
See next page

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REQUEST FOR ADDITIONAL INFORMATION

STATION BLACKOUT (SBO)

1. Justify the Emergency AC Power Configuration (EAC) classification of "A." EAC classification is based on the required loop loads not SBO loads per NUMARC 87-00 Supplemental Questions and Answers.
2. Provide the details of what loads are stripped and when they are stripped so that the Class 1E batteries have sufficient capacity to meet SBO loads for four hours.
3. Provide information regarding the Emergency Diesel Generator (EDG) reliability program which meets the requirements set forth in NUMARC 87-00. Provide the continuous and 2000-hr. ratings of the EDGs.
4. Loss of HVAC (detailed answer is required):
 - a. The licensee's April 17, 1989, SBO submittal (letter JPN-89-018) stated that the calculated control room temperature exceeded 120°F and would be recalculated. The subsequent SBO submittal of March 29, 1990 (letter JPM-90-026) did not provide any information on control room temperature for an SBO. Provide the calculated maximum SBO temperature for the control room for the four hour coping period and the assumed initial control room temperature. Identify the methodology used in the calculation and, if different from the NUMARC 87-00 methodology, provide a copy of the calculation.
 - b. The licensee has not provided SBO temperatures in the drywell, suppression pool, and main steam tunnel which are usual Dominant Areas of Concern (DAC) in BWRs such as FitzPatrick. Provide results of ambient air SBO temperature calculations for these rooms (including assumed initial temperature and methodology) or provide a detailed justification to why these rooms are not DACs for an SBO event. The licensee should note that the drywell ambient air temperature must assume an RCS leakage of 61 gpm which is made up of 18 gpm from each recirculation pump and 25 gpm technical specification leakage. The suppression pool temperature calculation is also required to ensure that pool temperature limits are not exceeded during the SBO event.
 - c. The licensee's stated SBO temperature of 130°F in the HPCI and RCIC rooms appears to be low compared to calculation results provided by other similar BWRs. Provide the assumed heat load, initial temperature, room size and total wall surface area for these rooms.

- d. The licensee has not specifically identified whether any SBO related procedures will advise the operators to open the instrumentation and control cabinets in the control room within 30 minutes of an SBO event. This is a requirement which was discussed in the NUMARC 87-00 Supplemental Questions and Answers of December 27, 1989.
5. Section 7.3 and Table 7.3-1 of the FitzPatrick Updated FSAR does not provide sufficient information to perform a containment isolation valve review in accordance with the criteria of NUMARC 87-00 and RG 1.155.

Provide a complete list of all primary containment penetration valves which includes the following information for each isolation valve: valve size, valve type (e.g., check valves), status upon a loss of all AC power, valves which are normally locked closed, number of valves on the same penetration, and valves with acceptable means of position indication (NUMARC 87-00 Section 7.2.5).
6. Provide information regarding the quality assurance aspects and SBO equipment which will be relied upon to cope with a postulated SBO event as required by R.G. 1.55, Appendices A and B.
7. The licensee has not addressed the positive or negative effects, if any, of the close juxtaposition (i.e., 3000 feet) to FitzPatrick of the Nine Mile Point Unit 1 and 2 nuclear power plants. Provide an evaluation of the potential influence of these nearby plants on FitzPatrick within the context of an SBO event.
8. Has the relay room been evaluated as a Dominant Area of Concern? Provide calculation.
9. Once Modification F1-89-158 concerning the Uninterruptable Power Supply (UPS) to Control Room Panel 27MAP is completed, describe the instruments which will be available when the UPS is load shed. Describe the instruments which will be lost, what instruments will become available, and the net effect on the Control Room heat load following a load shed for SBO.
10. Provide the 4-hour load profile for each battery.
11. Provide the assumptions used for the High Pressure Coolant Injection System for depressurization of the reactor and the assumptions used for drywell temperature related to SBO. Ensure that the assumptions are consistent.

12. In relation to the modification to convert the Reactor Core Isolation Cooling enclosure ventilation fans to DC, has the load been considered in the battery capacity calculation and the fans capacity checked for adequacy?
13. Provide a revised calculation for the total condensate needed for SBO which includes reactor vessel leakage, depressurization, and decay heat removal.
14. Provide Control Room heatup calculations for SBO.