

POWER AUTHORITY OF THE STATE OF NEW YORK
INDIAN POINT NO. 3 NUCLEAR POWER PLANT

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REGULATORY DOCKET FILE COPY

June 20, 1979
IP-KRC-5133

Mr. S. Varga
U.S. Nuclear Regulatory Commission
Mail Stop 116C
Washington, D. C. 20555

Subject: Revised Responses to I.E. Bulletin
79-06A Rev. 1

Dear Mr. Varga:

On April 26, 1979, we submitted our response to I. E. Bulletin No. 79-06A, Rev. 1, to Mr. Boyce H. Grier, Director, Office of Inspection and Enforcement, Region 1.

At a meeting held in Bethesda, Maryland, on May 30, 1979, we were given a two page critique of our response to the bulletin and were requested to submit a revised response, which we forwarded to Mr. Varga on June 6, 1979.

On June 12, 1979, we received a request for additional information as a result of the Staff Review of the bulletin responses. It appears that our response submitted on June 6, 1979, was not included as part of the Staff's review. Therefore, some of the requested information has already been answered in our previous response and we will note that in this response. We have attached our response of June 6, 1979, for your convenience.

The requests and responses below are numbered to correspond to the Bulletin action items:

2. Revise your response based on a thorough review of all transient and accident conditions based on insight gained from TMI-2 to (a) assure that action steps specifically warn of potential for voiding with a description of all instrumentation which might provide indication of potential or actual voiding, (b) specifically address operator actions, based on operational modes and instrument indications discussed above, for terminating conditions tending to lead to void formation and (c) provide operators with guidance for enhancing core cooling given the unexpected condition of actual voiding in the primary system. Summarize the results of this review including revisions to procedures. Identify all instrumentation which might be utilized in void recognition; summarize the review results and actions taken with regard to the natural circulation mode of operation and identify any aids provided to the operators to aid in recognition of voiding conditions.

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2. Site Response

We have made a thorough review of all transient and accident conditions based on insight gained from TMI-2. From this, we have developed two procedures. In one, it specifically calls to the attention of the operator the potential for voiding and specifically addresses operator actions for terminating conditions which tend to lead to void formation. The other procedure provides the operator with guidance for enhancing core cooling should actual voiding take place in the primary system and also takes into account both forced and natural circulation cooling.

At present, the main indicators available to the operator to determine if a voiding condition exists is reactor coolant system temperature and pressure. This is used to determine saturation conditions from the saturation curve located in the control room.

We have a preliminary design for a saturation alarm and indication system. Essentially, reactor coolant system temperature will be compared against pressure to generate an alarm at a predetermined setpoint, so as to alert the operator that the reactor coolant system is approaching a saturation condition. Additionally, an indicator will be available to the operator so that he may readily view the actual conditions and thus evaluate the results of actions taken to terminate the approach to or actual voiding condition.

We expect to install this system during our refueling outage, which is scheduled to start in September of this year. We will incorporate this indication into our procedures after the system is installed.

- 3) Explain the meaning of the phrase "under the direction of the Shift Supervisor" in relation to tripping the low pressurizer level safety injection bistables. Also, we feel it would be prudent to revise any procedure which involves Safety Injection such that manual actuation occurs at the low pressure setpoint.

3. Site Response

The Shift Supervisor is a licensed senior reactor operator who is in charge of the watch. When the order was received from the NRC to trip the bistable, he directed the licensed control room operator to implement the order. Therefore, it was done "under the direction of the Shift Supervisor".

It is not necessary to revise our procedures to state that manual safety injection shall be initiated when the low pressurizer pressure SI setpoint is reached, since we have performed an NRC approved modification to the initiation circuitry logic and the operators are required by the appropriate procedures to insure that all automatic actions have occurred. The new logic will automatically initiate a safety injection whenever pressurizer pressure reaches the safety injection setpoint. The requirement for a coincident low pressurizer level has been removed.

7.a) It is noted that you have modified your procedure "Shift Organization Requirements" to ensure that operating personnel will not override automatic actuation of engineered safety features except in the event of spurious action or unless continued operation will result in unsafe plant conditions. However, we are not certain that all operating procedures and training instructions have been reviewed and modified, accordingly. You must, therefore, provide assurance that operating procedures and training instructions have been reviewed to ensure that operators will not override automatic actions of engineered safety features, in case of spurious action or unless continued operation of engineered safety features will result in unsafe plant conditions. If they have not been reviewed, provide a schedule for completion of the review of operating procedures and training instructions, incorporating such modifications as are necessary to comply with item 7.a of the Bulletin.

7.a) Site Response

By way of this response, we are providing you the assurance that our operating procedures and training instructions have been reviewed to ensure that operators will not override automatic actions of engineered safety features, except in cases of spurious actuation, or the initiating cause is alleviated or unless continued operation of the engineered safety features will result in unsafe plant conditions.

7.b) Your response to item 7.b appears to be inadequate with regard to the requirements of item 7.b of the Bulletin. Provide assurance that operating procedures will be modified to keep high pressure injection and charging pumps in operation in accordance with the criteria specified in item 7.b of the Bulletin. Provide a schedule for completion of the review of operating procedures incorporating such modifications as are necessary to comply with item 7.b of the Bulletin.

- 7.c) Your response provides no assurance that you are complying with the requirements of the Bulletin. Therefore, you must provide assurance that operating procedures will be modified to keep reactor coolant pumps in operation in accordance with item 7.c of the Bulletin. You must also provide a schedule for completion of the review of operating procedures incorporating such modifications as are necessary to comply with item 7.c of the Bulletin.
- 7.d) Identify those specific parameters other than pressurizer level identified for operator use in evaluating plant conditions and verify that these parameters have been included in appropriate operating procedures.

7.b, c, & d) Site Response

Please refer to our response of June 6, 1979 to Mr. S. Varga.

8. Please provide your schedule for completing reviews of alignment of safety-related valves which are not normally accessible. Submit a summary of the results of these reviews, the reviews of procedures controlling manipulation of safety-related valves and any revisions necessary within two weeks after completion of the reviews.

Also review plant procedures and revise them as necessary to ensure that locked safety-related valves are subjected to periodic surveillance. Submit a summary of the results of the review.

8. Site Response

Please refer to our response of June 6, 1979 to Mr. S. Varga. Additionally, our locked valve checkoff list (which includes the locked safety-related valves) is performed when we return from a cold shutdown outage and on a monthly basis when the plant is at power operations.

- 9) Please identify those systems in which isolation valves could be repositioned as a result of resetting of phase A containment isolation and summarize revisions to procedures to avoid this problem. In addition, describe the basis for assurance of operability of existing high radiation interlocks.

9) Site Response

Those systems/lines in which isolation valves could be repositioned as a result of resetting the phase A containment isolation signal are as follows:

- SJAE to Containment
- PRT to Gas Analyzer
- Makeup Water to PRT
- CVCS Letdown
- RCS Sample Line
- Accumulator Sample
- Primary System Vent Header and H₂ Supply
- RCDT to Gas Analyzer
- RCDT Pumps to Holdup Tank
- Excess Letdown Ht. Ex. Cooling Water In.
- Excess Letdown Ht. Ex. Cooling Water Out.
- Containment Sump Pump Discharge
- Containment Air Sample In
- Containment Air Sample Out
- Steam Generator Blowdown
- Steam Generator Blowdown Sample
- Pressurizer Steam Space Sample
- Pressurizer Liquid Space Sample
- O₂ Supply to Containment
- H₂ Supply to H₂ Recombiner
- Instrument Air/P.A. Venting Supply Line
- 80 Foot Air Lock Solenoids
- 95 Foot Air Lock Solenoids

In our review, only one procedure required the resetting of the Phase A signal during an actual safety injection condition. This procedure has been revised to ensure that the newly issued procedure for resetting the Phase A signal is performed thus ensuring no valve will be repositioned improperly.

The basis for assurance of operability of existing high radiation interlocks is through our periodic testing program.

10) Please extend the review and modification of procedures to include safety-related systems as requested in the bulletin, and submit a summary of the results of all the reviews and the actions taken, within two weeks of completion of that effort.

10) Site Response

Please refer to our response of June 6, 1979 to Mr. S. Varga.

Mr. S. Varga

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10.c) Please describe the method used for transferring information about the status of safety-related systems at shift change.

10.c) Site Response

Please refer to our response of June 6, 1979 to Mr. S. Varga.


J. P. Bayne
Resident Manager

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enclosure