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PDR

Indian Point 3
Nuclear Power Plant
P.O. Box 215
Buchanan, New York 10511
914 736 8001

Robert J. Barrett
Site Executive Officer

NewYorkPower Authority

September 18, 1997
IPN-97-125

Director, Office of Enforcement
U.S. Nuclear Regulatory Commission
Attn: Document Control Desk,
Washington, D.C. 20555

SUBJECT: Indian Point 3 Nuclear Power Plant
Docket No. 50-286
License No. DPR-64
Reply to Notice of Violation and Proposed Imposition of Civil Penalty (Inspection Report 50-286/97-80)

Reference: Nuclear Regulatory Commission Letter from Hubert J. Miller to Robert J. Barrett dated August 19, 1997.

Dear Sir:

This letter provides, in Attachment I, the New York Power Authority's response to Violation 97-80-03, identified in the referenced correspondence. The Authority agrees with this violation. Enclosed is a check for the Civil Penalty of $55,000.

The commitments made by the Authority with this letter are contained in Attachment II. If you have any questions, please contact Mr. K. Peters at (914)736-8029.

Very truly yours,

For R. J. Barrett
Site Executive Officer
Indian Point 3 Nuclear Power Plant

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Attachments

cc: See next page

cc: Mr. Hubert J. Miller
Regional Administrator
Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, Pennsylvania 19406-1415

Director, Special Projects
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

U.S. Nuclear Regulatory Commission
Resident Inspectors' Office
Indian Point 3 Nuclear Power Plant

State of New York
County of Westchester

James Comiotes, being duly sworn, deposes and says:

I am the acting Site Executive Officer of the Indian Point 3 Nuclear Power Plant of which the Power Authority of the State of New York is the owner and operator under Facility Operating License DPR-64. I have read the foregoing "Reply to the NRC Notice of Violation and Proposed Civil Penalty EA 97-294" and know the contents thereof; and that the statements and matters set forth therein are true and correct to the best of my knowledge, information and belief.

James Comiotes

Subscribed and sworn to before me
this 18 day of September 1997.

Barbara Ann Taggart

BARBARA ANN TAGGART
NOTARY PUBLIC, State of New York
No. 4851437
Qualified in Putnam County
Commission Expires Jan. 27, 19 98

Reply to Notice of Violation 50-286/97-80-03/EA 97-294

RESPONSE TO NOTICE OF VIOLATION

NYPA is responding to the Notice of Violation contained in NRC Inspection Report 50-286/97-80 in accordance with the requirements of 10 CFR 2.201. The response addresses the three examples in the same sequence as presented by the Notice of Violation and provides the reason for each. The response provides the corrective actions taken and results achieved, the corrective actions that will be taken to avoid repetition, and the date when full compliance will be achieved.

Violation

10 CFR Part 50, Appendix B, Criterion III, requires that measures shall be established to assure that applicable regulatory requirements and the design basis, are correctly translated into specifications, drawings, procedures, and instructions.

Contrary to the above, prior to May 20, 1997, measures were not established to assure that applicable regulatory requirements and the design basis, were correctly translated into Emergency Operating Procedures (EOPs), as evidenced by the following examples:

1. Design basis information for the component cooling water heat exchangers' service water outlet valve position was not correctly translated into EOP ES-1.3, Revision 10, Transfer to Cold Leg Recirculation. The EOP did not provide instruction for operators to re-position these valves (from their normally throttled position) at the beginning of the recirculation phase of a postulated design basis accident. Under certain conditions, failure to re-position the valves, may have caused the loss of function of the component cooling water and other supported systems.

2. Design basis information for protection of the recirculation pumps from runout was not correctly translated into EOP ES-1.3, Revision 10, Step 18(b). The EOP did not provide appropriate instructions to reduce flow to less than 3000 gpm to assure that net positive suction head requirements are satisfied when only one recirculation pump is operating.

3. Design basis information for isolating nonsafety-related equipment was not correctly translated into EOP ES-1.3, Revision 10, Step 60(a), which directed operators to isolate component cooling water flow to the non-regenerative heat exchanger using air-operated temperature control valve AC-TCV-130. This procedure step was inadequate because valve AC-TCV-130 could fail open, due to a non safety-related source of supply air, and divert cooling water flow from other safety-related components.

Reply to Notice of Violation 50-286/97-80-03/EA 97-294

Response to Violation 97-80-03

NYPA agrees with this violation. The reasons for the violation are presented individually for the three cited examples.

Violation 97-80-03, Example number 1

NYPA agrees with this example.

Facts Related to Example

During normal operation service water valves SWN-35-1 and SWN-35-2, at the discharge of the CCW heat exchangers, are set to positions consistent with the existing Hudson River inlet temperature to control CCW temperatures supplied to equipment during normal plant operations. In the event of a postulated LOCA, EOP-ES-1.3, "Transfer to Cold Leg Recirculation", provides instructions to open these valves to a predetermined position of 27 degrees using protractors installed on the valves to protect the service water pumps from runout and to provide adequate post-LOCA service water flow. During normal operation there were no administrative controls to prevent adjusting these valves to positions more restrictive than the 27 degree valve opening required by EOP-ES-1.3.

A review of the sequence of EOP-ES-1.3, Revision 9, concluded that operators were not directed to throttle flow to the CCW heat exchangers until late in the procedure (step 40) when the headers were split. This delayed action could result in the throttle valves not being opened for up to an hour such that the service water flow may be insufficient for the post-accident heat load. An analysis did not exist for the various service water temperatures and the corresponding valve position required during the initial transition to recirculation to assure that the CCW system would perform as designed.

Cause of Example

1. Original instructions provided by the plant designers for operating the service water and CCW systems did not adequately address the provisions for transferring from power operations to post-LOCA heat loads during the recirculation phase. Operating instructions do not establish SWN-35 valve position limits based upon river water temperature.

2. Communications between site, WPO project and design engineering, and operations utilized memos to initiate related EOP procedure changes. There was inadequate followup to ensure that the recommended changes were incorporated as intended to assure plant operation in accordance with the plant's design basis.

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Example number 2

NYPA agrees with this example.

Facts Related to Example

When preparing Revision 10 to EOP-ES-1.3, " Transfer to Cold Leg Recirculation," the writer addressed a comment by revising a procedural step to try to start a second recirculation pump if only one recirculation pump was running. When doing this, the writer eliminated the step for adjusting flow to less than 3000 gpm with a single recirculation pump in service. There was no other procedural guidance to reduce flow to satisfy recirculating pump NPSH requirements for the single operating pump until step 38. This results in the pump operating in a cavitational mode (with one recirculation pump supplying two RHR heat exchangers, pump flow would exceed 3000 gpm) for an extended period of time. Recent analysis has shown that the pump was capable of this operation for up to 2 hours with high sump temperatures. Procedure review and approval of EOP-ES-1.3 Revision 10, failed to detect the inappropriateness of the procedure revision.

Cause of Example

1. The procedure writer focused on the feedback recommendation and failed to develop appropriate contingencies for subsequent procedural steps and to consider the prerequisite actions previously established.

2. Technical, including Validation and Verification, and QSR reviews did not adequately review Revision 10 to this procedure.

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Example number 3

NYPA agrees with this example.

Facts Related to Example

EOP-ES-1.3 contained the requirement for manual valve isolation of CCW flow to the Non-Regenerative Heat Exchanger (NRHX) prior to entering the post-LOCA recirculation phase in order to assure adequate CCW flow to safety related components at elevated river water temperatures. The requirement was added to address a vendor Ultimate Heat Sink analysis supporting a rise in the design basis river water temperature to 95°F. The vendor subsequently recommended manually isolating CCW flow to the NRHX by closing AC-TCV-130. The vendor recommendation was based on an incorrect understanding that the Ultimate Heat Sink analysis credited closure of AC-TCV-130 as an appropriate action. This understanding was not correct since the source of air supplied to AC-TCV-130 is not safety-related, no credit could be taken for the availability, and AC-TCV-130 would fail to its open position following a loss of air.

The vendor recommendation was incorporated in Procedure EOP-ES-1.3, Revision 9. Step 60, directed the operator to isolate CCW flow to the non-regenerative heat exchanger by closing AC-TCV-130 if only one CCW pump was running. If AC-TCV-130 could not be closed, the procedure instructed the operators to isolate CCW to the non-regenerative heat exchanger by closing manual isolation valves in accordance with system operating procedure SOP-EL-15.

Cause of Example

1. Inattention to detail by vendor, the site, and WPO engineering organizations relative to the review of technical information impacting the content of EOPs.

2. Acceptance of vendor recommendations without performing a rigorous technical review to independently validate the basis for the recommendation.

3. Ineffective process controls governing the EOP revision process.

4. Failure to establish Engineering "partnership" with Operations for the technical content of EOPs.

5. Inadequate training provided to Engineering regarding EOP methodology to enable effective review and oversight of the technical content of EOP procedures

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Corrective Actions Taken and Results Achieved

1. Administrative Procedure AP-3, "IP3 Procedure Preparation, Review, and Approval" was revised on July 30, 1997 to establish responsibility for Engineering review and concurrence of EOP revisions to assure technical content consistent with the plant's design basis.

2. EOP ES-1.3 was revised on August 25, 1997 to ensure the minimum closure limits based on river water temperature and minimum flow requirements to support CCW during recirculation.

3. An extent of condition review was performed for EOPs to validate technical content prior to restart from RO9. There were a total of 520 comments reviewed resulting in twenty three Deviation Event Reports with only two identified as potentially reportable. These are currently under review.

4. Revisions to the design control manual procedures were made on August 15, 1997 to ensure that design basis issues are implemented into appropriate procedures.

5. A review of the procedure revision process was performed and specific expectations were provided relative to the conduct of procedure review.

Corrective Actions That Will Be Taken To Avoid Repetition

1. Training will be developed and only engineering personnel who are qualified to the training program will review EOPs after October 30, 1997 as part of cross disciplinary review. The qualification will be included as part of the engineering support personnel training program.

2. An effectiveness review of corrective actions will be performed by February 28, 1998.

Date When Full Compliance Will Be Achieved.

Compliance was achieved, as follows, when EOP ES 1.3 was revised to address each of the examples:

Example 3- ES-1.3 Revision 11 effective on April 23, 1997.
Example 2- ES-1.3 Revision 12 effective on May 1, 1997.
Example 1- ES-1.3 Revision 13 effective on August 25, 1997.

List of Commitments

Number	Commitment	Due
IPN-97-125-01	Training will be developed and only engineering personnel who are qualified to the training program will review EOPs after October 30, 1997 as part of cross disciplinary review. The qualification will be included as part of the engineering support personnel training program	October 30, 1997
IPN-97-125-02	Conduct effectiveness review of corrective actions taken in response to Notice of Violation 97-80-03.	February 28, 1998