

NORTHEAST UTILITIES



THE CONNECTICUT LIGHT AND POWER COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
NEW YORK WATER POWER COMPANY
NORTHEAST UTILITIES SERVICE COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY

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December 21, 1990

Docket No. 50-336
A09166

Mr. E. C. Wenzinger, Chief
Projects Branch No. 4
Division of Reactor Projects
U. S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, Pennsylvania 19406

Dear Mr. Wenzinger:

Millstone Nuclear Power Station, Unit No. 2
RI-90-A-0204 and ~~RI-90-A-0208~~

We have completed our review of an allegation concerning activities at Millstone Unit No. 2 (RI-90-A-0204). As requested in your transmittal letter, our response does not contain any personal privacy, proprietary, or safeguards information. The material contained in this response may be released to the public and placed in the NRC Public Document room at your discretion. The NRC letter and our response have received controlled and limited distribution on a "need to know" basis during the preparation of this response. Based upon our request on December 20, 1990, Region I personnel extended the due date for RI-90-A-0208 to January 21, 1991. Additional time was needed to resolve technical issues in order to provide a complete response.

RI-90-A-0204

Issue 1

Background

These same issues were raised by an instrument specialist during the head cabling work activity. There is a close correlation of the questions posed by the memo and response. This documentation is available for your staff's review.

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The following problems exist with IC 2421C:

1. Step 5.5.6.1 calls for visually inspecting the connector assemblies on each cable for signs of degradation or damage. Problems have been identified with 2-1, #4, #7, and 2-2, #8. The cables were put together anyway. Please explain. Further, the step calls for visually inspecting the Grafoil gasket at the Litton-Veam connector, but no information is provided about these connectors or the Grafoil gaskets. Are I&C technicians trained on these items? Does the procedure require upgrades to explain what the technician is looking for in this step? No figure is provided with the procedure to identify the connectors, and it is impossible to read the etched numbers on the connectors. How are the connectors to be identified on the job?

Response

The activity of reassembling the HJTC connectors was begun on a Sunday with an upgraded specialist serving as the first line supervisor and no engineering support readily available. During the work activity, several questions were raised and documented. The following day, Monday, these questions were investigated and resolved by more knowledgeable I&C and Engineering personnel.

Connector training performed to date has not included the specific knowledge needed to perform this task. Training requirements for this task are being reviewed for addition to the I&C technical training program.

As written, the procedure makes the assumption the I&C technician using it has the knowledge necessary to determine the gasket location and condition. As a result of this experience, the procedure owner has been instructed to revise the procedure to include the necessary information.

The connections are identified by a small stenciled number. They are also staggered and are in the order of #1 being the highest and #8 being the lowest. As lighting is limited and access is difficult, the normal method for connector identification has been its order of elevation.

2. The caution on page 14 is impossible to achieve as only about a 45-degree turn is possible. Is this technically satisfactory? Does this indicate procedural non-compliance during past performance? Has there been repeated connection damage in complying with this step

Response

On the following Monday, additional technical information was obtained from the responsible vendor. Procedure changes were implemented to allow an alternative method of torquing the connector. This method was used to ensure the proper assembly of the connectors. No significant connector damage has occurred.

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3. Dust cover caps are shown in figures in IC-2421C and IC-2419C. These caps are not being used. Are dust covers needed? Why are they not used if shown in the figure?

Response

The use of dust covers is not delineated by the procedure. Dust covers only appear in the figure. The need for their use is currently being evaluated. The existing figure has been replicated from a vendor drawing that shows the "as supplied" HJTC probe. The figure was not intended to dictate the use of dust caps in the field. The figure also has shortcomings in not supplying the necessary detail needed for inspection and assembly of the connectors.

4. Step 5.6.4 calls for the verification of the HJTC probes per IC-2419C. Why is this not done prior to the connection of the detector cables?

Response

This HJTC probe had been previously used. There was no need to perform the verification of the known good probe. The retest of the overall system response verifies the condition of the probe, as well as the entire system. The step has since been removed from the procedure.

5. Are any generic problems with procedural non-compliance or laxity with regards to procedural adherence evidenced by these problems? Please explain.

Response

There are no generic problems with procedure non-compliance as evidenced by these problems. Note that this procedure has not been upgraded as part of the station procedure upgrade program. Weaknesses in such procedures like this one have previously been discussed with the NRC staff. This example serves to demonstrate that with the proper attention to detail by the technicians involved and with the proper response and direction from their supervision that a proper quality activity results. Where appropriate, the necessary NCRs and procedure changes were implemented, and the noted need for procedure enhancements took place.

Issue 2

Instrument Calibration Review ICR 90-113 was written on November 2, 1990. Please provide the resolution documentation for the ICR.

Response

A copy of the Instrument Calibration Review ICR 90-113 is attached.

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Issue 3

Recently, an ICR was generated concerning out-of-specification test voltages found during the performance of SP-2404C. Please provide the resolution documentation for the ICR. Historically, the reference voltages have been out of specification:

March 9, 1990	AWO M2-90-02559
May 5, 1990	AWO M2-90-02736
May 5, 1990	AWO M2-90-05237
May 5, 1990	AWO M2-90-05480
August 30, 1990	Surveillance, SP-2401F, and SP-2401B

Please discuss the operability of Channel "C" of the RPS with the historic out-of-specification test voltages. Note, Drawings 25203-39069, sheet 40, and 25203-25193, sheet 6, supposedly identify the reference test voltage applications.

Response

There is no I&C procedure SP-2404C. Therefore, it is not possible to supply any information concerning an ICR generated while performing this procedure. The AWOs referenced were written against RPS channel "C" Reactor Protection System Calibration and Indication Panel (RPSCIP). There are no test voltages generated in this instrument drawer. However, the RPSCIP digital volt meter (DVM) is used to monitor the core protection calculator (CPC) logic power supply output voltage (+/-10vdc). A review of surveillance and equipment history shows that following replacement of a different power supply (+5vdc) in May 1989 by PDCR MP2-89-028, the RPSCIP DVM indicated a .003vdc offset from the actual +/-10vdc power supply output. Investigation during the 1990 refueling shutdown, while performing PDCR MP2-89-068, revealed a difference in ground potential between the RPSCIP and the CPC. This caused the RPSCIP DVM to indicate incorrectly by .003vdc. This is at the limit of the tolerance applied to the DVM indication (+/- .003vdc). A design change notice (DCN #DM2-P-022-00) was written against PDCR MP2-89-068 and implemented to correct the problem. As can be seen by reviewing the referenced AWOs, the problem was identified shortly after the +5vdc modification and determined to be limited to the DVM indication only. An AWO to investigate the problem was written at that time and scheduled for the refuel.

Also referenced are two surveillance procedures for August 30, 1990. One surveillance concerns the CPC, SP-2401F, the RPS high power trip test, which is performed monthly. It documents the above DVM indication problem and shows the high power trip function of the CPC to be operable at this time. The other referenced surveillance SP-2401B, concerns the wide range flux monitor functional. This procedure is performed weekly while shut down. Since Millstone Unit No. 2 was not shut down during the referenced time, it is difficult to determine how this is related to the issue.

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Two drawings are referenced which "supposedly identify the reference test voltage applications". The first drawing, 25203-39069, sheet 40, is an electrical schematic of the CPC. It shows the power supplies connection to the circuit but makes no reference to the application of the voltage with respect to absolute values. It has no connection to the wide range flux monitor circuit. The second drawing referenced, 25203-25193, sheet 6, does not exist in the NUSCO drawing system. More specific information will be required to resolve this issue.

Issue 4

A red tag was improperly hung by Operations on the back of C05/C06. The tag was hung on TDE but should have been hung on TDD. SCO(*) knows the details. Please explain the tagout problem and actions taken to both correct the problem and to prevent recurrence.

(*) - identity may be obtained from the SRI.

Response

The pins for Weidmuller Block TDD, on the back of C05/C06, were properly removed and placed in their correct storage location at the time of tagging, under the guidance of an I&C technician. The red tag was properly filled out for Weidmuller Block TDD. The tagging discrepancy was that the red tag was not attached directly to Weidmuller Block TDD but to a cable directly beside TDD which was labeled TDE. This tagging discrepancy was noticed by an operator who consulted with an I&C technician. The operator then moved the tag from the cable to the pins for Weidmuller Block TDD. Long-term actions to prevent recurrence is to formally distribute to all Unit 2 Operations personnel a standardized method for tagging Weidmuller Blocks.

Issue 5

A recent annunciator window change C04(CRDR) was apparently not reviewed and completed properly as procedures SP-2401B, 2401F, and 2401J had to be changed during the performance to accommodate the annunciator window changes. Please discuss the accuracy of the statement and any actions that you have taken or may take to rectify any identified problems.

Background

As part of the CRDR improvements, several annunciator windows were relocated. This activity took place over the course of the 1990 refueling outage. Changes to I&C procedures were appropriate as the procedures contained the detail of the annunciator window location. Changes to SP-2401B and its data sheet and SP-2401J were processed at the time the procedures were implemented. No changes were required to SP-2401F. It is necessary for procedure changes required by a modification to be approved prior to the implementation of the procedure. This was done in this case.

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Response

Although several changes were required, no problems requiring corrective action exist. All modification-related procedure changes can not be made in advance of the task being assigned.

Issue 6

On November 5, 1990, upon completion of the CWP portion of SP-2401J, (the CRDR change was done as a non-intent change on this date), Channel C T0-7 was left bypassed by technicians after the surveillance was turned in, and the technicians had to be called by the SS and the channel unbypassed by the SCO. Please discuss the procedural compliance aspects of this statement.

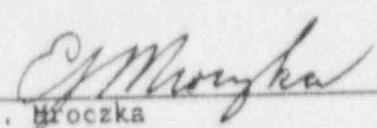
Response

This event is an example of procedural noncompliance. SP-2401J requires restoration of the bypass key. This was not done prior to turning in the surveillance. The appropriate personnel have been counseled with respect to this issue.

After our review and evaluation, we find that none of these issues taken either singularly or collectively present any indication of a compromise of nuclear safety. We appreciate the opportunity to respond and explain the basis for our actions. Please contact members of my staff if there are any further questions on any of these matters.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY


E. J. Hrocza
Senior Vice President

cc: W. J. Raymond, Senior Resident Inspector, Millstone Unit Nos. 1, 2, and 3

ATTACHMENT 1

INSTRUMENT CALIBRATION REVIEW FORM 90-113

ISSUE NO. 2

December 1 0

FORM APPROVED

DATE

6-8-90

MTG. NO.

2-90-66

INSTRUMENT CALIBRATION REVIEW FORM

Part 1 To be completed by person performing work.

ICR Number 90-113 AWO# M2-90-13275 Date 11/2/90 Time 15:30Instrument or Device Affected ID# PT-100y Name PRESSURIZER PRESSUREProcedure Number: IC-2418C Title: PRESSURIZER PRESSURE Instrument CalibrationDescription of Event or Calibration Results while investigating the reason for the low pressure, indicator on loop R-100y the pressure transmitter PT100y was found isolated at pressure.Cause: (If Facts are Known) ☐ Instrument Drift ☐ Unknown☒ Other Explain: LEFT isolated after calibration check / not on valve lineup

Would the Instrument or Control System have performed its function as required by Tech Specs?

Yes ☐No ☒NA ☐Basis: Isolated

Was the Instrument or Control System (Alarm, Bistable Trip, etc.) found in a conservative condition?

Yes ☐No ☒NA ☐Basis: ISOLATED

Is a PIR recommended?

Yes ☒No ☐

Completed by:

Technician/Specialist

Reviewed by:

I&C Supervisor

Part 2 To be completed by SS or SCO.

Mode 3 Power 0% Temp. 300°F Press. 400#PIR written ☒ No ☐ Yes (If yes, reference ICR on PIR & attach copy of PIR) PIR#

Completed by

SS/SCO

Concurred with:

12/19/90
Duty Officer

Part 3 To be completed by I&C Manager/Designee

Cause of problem: Instruments not covered in VALVE LINEUP Calibration IC 2418C does address restoring loop to normal service however not by specific values to operate.

Corrective Action (if required): Added PT100X & PT100Y to IC2436A-1 SAFETY RELATED INSTRUMENT VALVE LINEUP (STARTUP) REV 4 chg 1

Long Term reliability concerns ☐ YES ☒ NO

Action to address concerns: None

Effect on previous surveillances ☐ YES ☒ NO

Action Required: None

I&C Open Item ☐ YES ☒ NO If Yes, # _____

Human Performance Enhancement System (HPES) review required?

☐ YES ☒ NO Date forwarded _____

Completed By: _____

Approved By: _____
I&C Manager