



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

February 24, 1986

Docket No. 50-219

LICENSEES: GPU Nuclear Corporation
Jersey Central Power and Light Company

FACILITY: Oyster Creek Nuclear Generating Station

SUBJECT: JANUARY 23, 1986, MEETING WITH GPU NUCLEAR CORPORATION (GPUN) TO
DISCUSS THE CHANNEL CHECKS FOR OPERABILITY OF THE LOW AND LOW-LOW
REACTOR WATER LEVEL INSTRUMENTATION CHANNELS

On Thursday, January 23, 1986, a meeting was held at NRC, Bethesda, Maryland, with GPU Nuclear (GPUN), the licensee, to discuss the channel checks for operability of the low and low-low reactor water level instrumentation trip switches, the staff's Safety Evaluation, Reactor Water Level Instrumentation Channel Check, dated November 30, 1985, and the licensee's response to the Safety Evaluation which is due before the commencement of the Cycle 11 Refueling (Cycle 11R) outage. The Cycle 11R outage is scheduled to begin in April 1986. Attachment 1 is the list of individuals that attended the meeting. Attachment 2 is the material handed out by the licensee in the meeting for its presentation. The following is a summary of the significant items discussed and the actions, if any, taken or proposed.

On November 30, 1985, the staff issued Amendment No. 95 to the Provisional Operating License for Oyster Creek. This amendment authorized the revision of the daily channel check for the low and low-low reactor water level instrumentation channels. This amendment was a one-time-only change which was effective only from November 8, 1985, to the restart from the Cycle 11R outage. The Safety Evaluation (SE) attached to the amendment requested before the commencement of the Cycle 11R outage (1) a justification of the existing reactor water level instrumentation channels addressing the staff concerns about the revisions to the channel checks for operability of the channels or (2) a statement that a daily channel check of the channels will be installed in the Cycle 11R outage. If this amendment is not changed by a future application, this amendment will revert to the previous requirement of a daily channel check for the channels at the restart from the Cycle 11R outage.

In the SE, the staff also requested the licensee to (1) report promptly any loss of operability of the low and low-low reactor water level instrumentation channels and (2) provide an additional level of administrative control to the existing procedures on returning the channels to service which will show the switches in the channels communicate with the reactor vessel. It is these switches which, at the low-low or low reactor water level setpoints, actuate to initiate engineered safety features functions. This is discussed in the SE. The additional administrative control, accepted by the staff,

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was to (1) open the isolation valve between the switch and the upper part of the reactor vessel (reference leg) which results in an indication in the control room of the reactor water level being less than low and low-low water level setpoints and (2) open the isolation valve between the switch and the lower part of the reactor vessel (measurement leg) which clears the above indication. This will be referred to as the communication test or C-test.

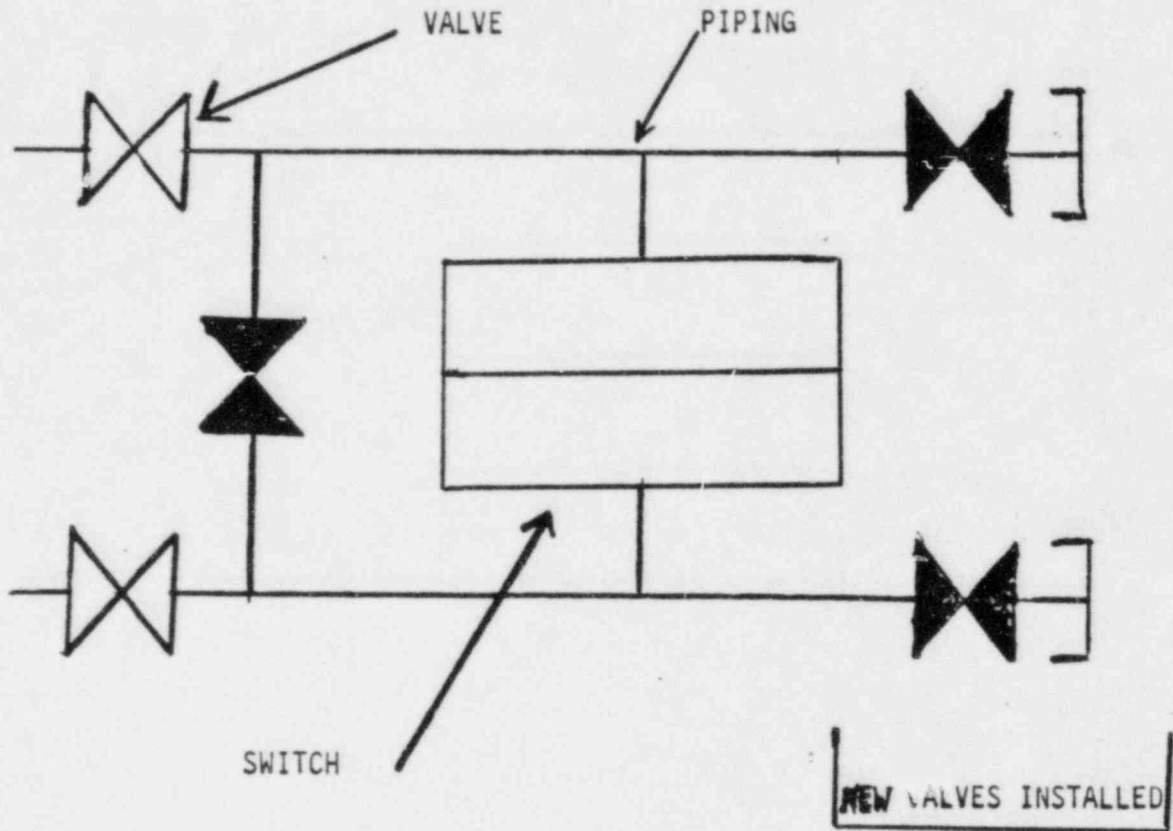
The agenda for this meeting was decided to be (1) the discussion of the switch that the licensee declared inoperable on January 21, 1986, and (2) the discussion of the licensee's proposal for installing a daily channel check for the switches in the low and low-low reactor water level instrumentation channels.

On Friday, January 17, 1986, normal surveillance was conducted on the low reactor water level instrumentation channel switches. The setpoint for three of these switches was found to be outside the acceptance criteria. The switches were recalibrated, verified to be in communication with the reactor vessel using the C-test described above and returned to service. Two of these three switches were again surveilled on Monday, January 21, 1986, and the drift in the setpoints were found to be insignificant, however, one switch would not reset during the C-test. The licensee declared this switch inoperable and decided to replace the switch.

The licensee stated that the C-test may have contributed to the failure of the switch to reset. The switch manufacturer had stated to the licensee that the C-test would cause a shift in the setpoint in the conservative direction but this would be temporary and the setpoint would return to its calibrated value. The licensee, however, has also decided to modify the C-test. On only the switch that was replaced, two additional valves, as shown in the figure on the next page, were added so that the pressure in the switch can be measured by a pressure gauge which is attached to either of the new valves. By properly opening and closing the isolation valves, the pressure measured by the gauge would indicate that the switch was in proper communication with the reactor vessel. The new method was explained to the staff by the licensee and accepted by the staff.

The licensee does not believe the problem with the one switch above is generic to the remaining seven switches. The licensee is now planning to install the new valves on the remaining switches as surveillance is required on these switches by the Technical Specifications and return all the switches to service using the modified C-test as described above.

The licensee stated that the switch manufacturer will be at the station site to inspect the inoperable switch to help determine the mode of failure. The results of this inspection will be shared with NRC and may change its position on not doing the surveillance immediately on the remaining seven switches. The licensee stated that it is not planning to propose a change to the Technical Specification to make the valve modifications to the remaining switches.



SIMPLIFIED SCHEMATIC OF THE LOW AND LOW-LOW REACTOR WATER LEVEL
INSTRUMENTATION CHANNEL SWITCHES

For the second part of the meeting, the licensee handed out a chart which is Attachment 2. The September 1985, December 1985 and September 1986 dates in the chart reflect 1) before the low and low-low reactor water level instrumentation was modified, 2) after the modifications were completed in the Cycle 10M outage and 3) after the new modifications to be discussed here are completed in the Cycle 11R outage. The staff issued its evaluation of the modification of the low and low-low reactor water level instrumentation in the SE attached to Amendment No. 91 dated November 19, 1985.

The chart also contains references to the low-low-low reactor water level, high drywell pressure and main steam high flow instrumentation. These instrumentation were not involved in Amendment Nos. 91 and 95.

The licensee discussed the modifications which will provide a channel check for the low and low-low reactor water level instrumentation:

- low - install Rosemount transmitters for the four existing RE-05 switches
- low-low - install permanent differential pressure gauges across the four switches.

These modifications will require rearranging the instrument racks. The licensee stated it is considering doing the modifications with the fuel out of the reactor vessel.

The staff requested the surveillance done to verify communication with the reactor vessel for the low-low-low reactor water level instrumentation channels before a channel is returned to service. The staff asked if there were instrumentation that could backup the high drywell pressure and main steam high flow instrumentation both of which the licensee may proposed to delete the daily channel check? The staff stated that in accordance with 10 CFR 50.59 any modification which will result in a change to the Technical Specifications must be submitted to the staff for its review and approval.

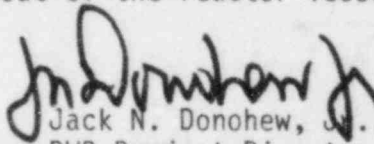
The staff stated that the licensee does not need to propose a change to Technical Specifications to return the channel check for the low and low-low reactor water level instrumentation channels to daily. The channel check for this instrumentation in Amendment No. 95 will automatically revert to a daily channel check at the restart from the Cycle 11R outage. The staff also stated that doing these modifications to these instrumentation without fuel in the reactor vessel should not be an unreviewed safety question.

At the end of the meeting, the licensee and the staff discussed the licensee's proposed change to the Technical Specifications in its letter dated October 11, 1985, for the reactor vessel isolation when the low-low reactor water level instrumentation is inoperable in the reactor shutdown mode. The licensee stated that it has decided to submit a new proposed change for reactor vessel isolation by April 30, 1986. The other change submitted in the October 11, 1985, letter resulted in Amendment No. 95 dated November 30, 1985.

In summary, the following was agreed to in the meeting:

1. The licensee will provide the surveillance that verifies communication with the reactor vessel for the low-low-low reactor water level instrumentation channels before a channel is returned to service.
2. If there is backup instrumentation for the high drywell pressure and main steam high flow instrumentation, deleting the channel check is acceptable to the staff.
3. The licensee will inform the NRR Project Manager of the results of the manufacture's inspection of the inoperable switch.

The staff stated that the modifications discussed in the meeting for the low and low-low reactor water level instrumentation in the Cycle 11R outage should be done while the fuel is out of the reactor vessel.



Jack N. Donohew, Jr., Project Manager
BWR Project Directorate #1
Division of BWR Licensing

Attachments:

1. List of Attendees
2. Licensee's handout

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R. Houston
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W. Hodges
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DISTRIBUTION

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Oyster Creek Nuclear Generating Station

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MEETING WITH GPU NUCLEAR CORPORATION (GPUN)January 23, 1986

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J. Rogers	GPUN
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AFFECTED TECHNICAL SPECIFICATION INSTRUMENTS

Inst. Channel	SEPTEMBER 1985		DECEMBER 1985		SEPTEMBER 1986	
	Type	Daily Chan. Ck.	Type	Daily Chan. Ck.	Type	Daily Chan. Ck.
Lo Rx Water Level	Yarway Indicating	1/d	SOR Non-Ind	RE21A (1) RE21G	Rosemount/Fox XMTR/Analog Trip	1/d
Lo-Lo Rx Water Level	Yarway Indicating	1/d	SOR Non-Ind	RE21A (1) RE21B	SOR W/Ind. Gauges	1/d
Lo-Lo-Lo Rx. Water Level	Barton Indicating	N/A	Barton Indicating	N/A	SOR (2) Non-Indicating	N/A
Hi DW Press (Core Cooling)	Barton Indicating	1/d	Barton Indicating	1/d	SOR Non-Indicating	N/A (3)
Main Steam Hi Flow	Barton Indicating	1/d	Barton Indicating	1/d	SOR (4) Non-Indicating	N/A (3)

- (1) Technical Specification Change Request #141.
- (2) One Barton Lo-Lo-Lo indicator per header to remain.
- (3) Will require Technical Specification change.
- (4) One Barton flow indicator per header to remain.