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October 29, 1984

Dr. Thomas E. Murley, Administrator
Region I
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

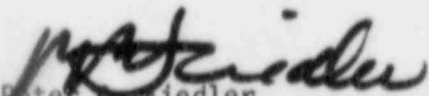
Dear Dr. Murley:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
IE Bulletin No. 79-27

The attachments to this letter update the initial response to the subject Bulletin forwarded by Jersey Central Power and Light Company's letter dated April 25, 1980. During the course of developing and implementing the proposed modifications further evaluation resulted in changes to the original proposed work scope and implementation schedule. As indicated in the attachments, deferred modifications will be completed during the next refueling outage.

If you have any questions, please contact the undersigned or Paul Czaya at (609)971-4893.

Very truly yours,


Peter D. Fiedler
Vice President and Director
Oyster Creek

PBF/dam
attachments

cc: Office of Inspection and Enforcement
Division of Reactor Operations Inspection
U.S. Nuclear Regulatory Commission
Washington, DC 20555

NRC Resident Inspector
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Attachment I

IE Bulletin No. 79-27

This attachment describes proposed design modifications resulting from evaluations conducted in response to the subject Bulletin. It reiterates those proposed design modifications originally identified.

- I. "Loss of Power" sensing devices have been installed to provide individual "Loss of Power" alarm annunciation in the control room for the following instrumentation and control power panels:
 - A. 120 VAC System
 - 1) Continuous Instrument Panel No. 3 (CIP-3)
 - 2) Vital A.C. Power Panel No. 1 (VACP-1)
 - 3) Protection System Panel No. 1 (PSP-1)
 - 4) Protection System Panel No. 2 (PSP-2)
 - 5) Instrument Panel No. 4 (IP-4)
 - 6) Instrument Panel No. 4A (IP-4A)
 - 7) Instrument Panel No. 4B (IP-4B)
 - 8) Instrument Panel No. 4C (IP-4C)
 - B. 125 VDC System
 - 1) D.C. Power Panel "D" (DCPP-D)
 - 2) D.C. Power Panel "E" (DCPP-E) See Note 1
 - 3) D.C. Power Panel "F" (DCPP-F)
 - 4) Isolation Valve Motor Control Center DC-1 (MCC DC-1)
 - C. +/- 24 VDC System
 - 1) Power Panel "A" (PP-A)
 - 2) Power Panel "B" (PP-B)

The addition of these loss of power alarms allows for immediate identification of the affected power panel. This improves the response capability of the operator and provides a direct reference to the correct response procedure.

- II. "Power Available" indication have been installed on the following power transfer devices to locally indicate that the alternate power source is available":

A. 120 VAC System

1. 120 VAC System

- a) Auto Transfer Switch "IT-3"
- b) Auto Transfer Switch "VACP-1"
- c) Auto Transfer Switch "VLDP"
- d) Auto Transfer Switch "IT-4"
- e) Manual Transfer Switch "PS-1"
- f) Auto Transfer Switch Isolation Valve MCC "1AB2"
- g) Contactor Transfer Panel "GT-1"
- h) Contactor Transfer Panel "GT-2"

2. 125 VDC System

- a) Isolation Valve MCC "DC-1"
- b) Auto Transfer Switch "DC-D"
- c) Auto Transfer Switch "DC-E"

III. Sets or groups of instrumentation and control circuits discussed below are or were being powered from single power sources. Some power sources have been modified, other proposed modifications have been cancelled after further evaluation and the remainder are being deferred for future implementation.

A. Continuous Instrument Panel No. 3 (CIP-3)

1. Four of five reactor water level indicators on control room panel 5F/6F were supplied from CIP-3. Reactor Water Level Indicators (Yarway) RE-21A and RE-21B were both powered from circuit breaker No. 20. Reactor Water Level Indicators (GEMAC) ID-59A and 59B are powered from circuit breaker No. 1. Loss of power to CIP-3 would have resulted in loss of power to all those indicators. Modifications have been completed to remove RE-21B from CIP-3 and provide power from IP-4C. ID-59A and B will remain powered by CIP-3. As indicated in our letter dated May 29, 1980, the GEMACs are an integral part of the Feedwater Control System. Placing the GEMACs on separate power supplies would result in having two separate and redundant power supplies hooked up to a common instrument system. This situation could introduce ground loops into the system, which in turn could result in false indications and spurious scrams.

B. Instrument Panel 4B (IP-4B)

1. Circuit breaker No. 8 on IP-4B provides power to both Isolation Condenser Remote Level Indicators (IG07A and IG07B) and Pressure Indicators (IG04A and IG04B). Upon loss of power to IP-4B level and pressure indication will

be lost for both isolation condensers. This event in and of itself will not affect the ability to achieve a cold shutdown condition. This modification is being deferred because the Reactor Protection System (RPS) Analog Upgrade project, scheduled for implementation during the Cycle 11 refueling outage, will accomplish the objectives of the modification proposal. The RPS Analog Upgrade will separate the "A" Isolation Condenser and "B" Isolation Condenser instrumentation such that each is powered from a separate AC source with battery backup.

C. Instrument Panel 4 (IP-4)

1. Loss of IP-4 would result in a loss of all four (4) battery chargers in the + 24 VDC Power System. This event could eventually result in a total loss of the 24 VDC System if charging power cannot be restored prior to the batteries' full discharging. This event does not prevent achieving a cold shutdown condition. The original proposed modification involves providing a separate power feed to battery chargers B-1 and B-2 from CIP-3. However, this modification is being deferred until the new 480 V switchgear proposed by the Appendix R project is operational (scheduled for Cycle 11 refueling outage implementation). Deferring this project, until such time as the new switchgear is available, would eliminate two (2) inherent problems of the proposed design: (a) constructability - due to the accessibility problems of the existing 480 V Switchgear Room (location of panel CIP-3) and the prohibitive cost to install the necessary conduit to facilitate the new power cable run; (b) panel CIP-3 is normally reserved for instrumentation related to reactor operation. It was chosen to power this instrumentation due to the lack of spare circuits in other instrument panels. With the new 480 V switchgear installed CIP-3 would not be required to power battery chargers B-1 and B-2 and the lack of spare circuits will be eliminated.
2. The four (4) SRM and eight (8) IRM Drive Units are powered from circuit breaker No. 8 on IP-4. Loss of power to IP-4 will result in the inability to insert and/or withdraw the SRM/IRMs. This event does not affect the ability to achieve a cold shutdown condition. The proposed modification involves providing backup power supplies to the SRM/IRM drive and control units. The SRMs and IRMs are used to verify a shutdown condition and to monitor neutron flux during startup and shutdown. As shutdown can be verified by control rod position (which is powered separately) this modification has been cancelled.

3. Stack gas radiation monitoring sensors RN 10A and RN 10B were fed by a +/- 24 VDC power feed from IP-4A. The power feed has been separated such that RN 10A is powered from IP-4A while RN 10B is powered from IP-4B.

D. Vital A.C. Power Panel - 1 (VACP-1)

The control power to the trouble trip circuit (high temperature/low oil pressure) for Air Compressors 1-1 and 1-2 is from circuit breakers No. 2 and No. 4 respectively. Loss of power to VACP-1 will result in a loss of Compressors 1-1 and 1-2. This event does not affect the ability to achieve a cold shutdown condition. As Air Compressor 1-3 control power is independent of 1-1 and 1-2, allowing 1-3 to supply service and instrument air upon loss of power to VACP-1, the proposed modification to separate control power to Air Compressors 1-1 and 1-2 has been cancelled.

E. D.C. Power Panel D (DCPP-D)

The D.C. Reversing Contactor control power for the (4) SRM and (8) IRM Drive Units is supplied from circuit breaker No. 17. Loss of DCPP-D will result in the inability to insert/withdraw the SRMs/IRMs. The results of this event are the same as for C.2. above.

F. D.C. Power Panel E (DCPP-E)

Loss of power to panel E will result in a total loss of feedwater pump runout protection. Feed flow controller relays K11 through K17 are powered from circuit breaker No. 9 on DCPP-E. The proposed modification consists of adding an alarm to inform the operator of this condition. This modification has been cancelled, as loss of power to DCPP-E results in the loss of the entire control room annunciator system.

Notes: 1. Loss of power to DCPP-E results in the total loss of control room annunciation.

Attachment II

IV. Schedule for Completion of Proposed Design Modifications

Description of Modification	Equipment Affected	Scheduled Completion Date	Remarks
Installation of "Loss of Power" Sensing Devices	Refer to Attachment I Section I	Cycle 10 Refueling Outage	Complete
Installation of Local "Alternate Power Available" Indication	Auto Transfer Sw (DC-D)	Cycle 9 Refueling Outage	Complete
	Auto Transfer Sw (DC-E)	"	"
	Isolation Valve MCC (DC-1)	"	"
	Auto Transfer Sw (IT-3)	"	"
	Auto Transfer Sw (IT-4)	"	"
	Auto Transfer Sw (VACP-1)	"	"
	Auto Transfer Sw (VLDP)	Cycle 10 Refueling Outage	"
	Manual Transfer Sw (PS-1)	"	Not required, as indication already exists
	Auto Transfer Sw Isol. Vlv. MCC (1AB2)	"	Complete
	Contactor Transfer Panel GT-1	"	Not required, as indication already exists
Contactor Transfer Panel GT-2	"	"	

IV. Schedule for Completion of Proposed Design Modifications - Page 2

Description of Modification	Equipment Affected	Scheduled Completion Date	Remarks
Separation of Power Supplies	Reactor Water Level Indication (Yarway) 5F/6F RE-21A, RE-21B	Cycle 9 Refueling Outage	Complete
	Reactor Water Level Indication (GEMAC) ID-59A, ID-59B (5F/6F)		Cancelled
	Isolation Condenser Remote Level Indication (IG07A and IG07B) and Pressure Indication (IG04A and IG04B)	Cycle 11 Refueling Outage	
	24 VDC Battery Chargers (#A-1, A-2, B-1 and B-2)	Cycle 11 Refueling Outage	
	SRM/IRM 120 VAC Reversing Contactor Relay Power		Cancelled
	Air Compressors 1-1 and 1-2 trouble trip circuit control power		Cancelled
	Stack gas radiation monitoring sensors RN 10A and RN 10B	Cycle 10 Refueling Outage	Complete
Loss of Feedwater Pump Runout Protection	Feedwater Controller Relays for Runout Protection		Cancelled