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Writer's Direct Dial Number:

May 9, 1996

6730-96-2150

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Dear Sir:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
Licensee Event Report 96-003

Enclosed is Licensee Event Report 96-003. This event did not impact the health and safety of the public.

If any additional information or assistance is required, please contact Mr. David J. Distel of my staff at 201-316-7955.

Very truly yours,

Michael B. Roche
Vice President & Director
Oyster Creek

MBR/DJD/gl

Enclosure

cc: Administrator, Region I
NRC Project Manager
NRC Resident Inspector

140116

9605140478 960509
PDR ADOCK 05000219
S PDR

NRC FORM 366 (4-95)			U.S. NUCLEAR REGULATORY COMMISSION			APPROVED BY OMB NO. 3150-0104 EXPIRES 04/30/98 ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.																											
LICENSEE EVENT REPORT (LER)																																	
FACILITY NAME (1) <div style="text-align: center; font-weight: bold;">OYSTER CREEK, UNIT 1</div>						DOCKET NUMBER (2) <div style="text-align: center; font-weight: bold;">50-219</div>			PAGE (3) <div style="text-align: center; font-weight: bold;">1 OF 5</div>																								
TITLE (4) Technical Specification Surveillance Procedure Review Identification of Non-Conforming Conditions																																	
EVENT DATE (5) <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:33%;">Month</td> <td style="width:33%;">Day</td> <td style="width:33%;">Year</td> </tr> <tr> <td style="text-align: center;">04</td> <td style="text-align: center;">09</td> <td style="text-align: center;">96</td> </tr> </table>			Month	Day	Year	04	09	96	LER NUMBER (6) <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:33%;">Year</td> <td style="width:33%;">Sequential Number</td> <td style="width:33%;">Revision</td> </tr> <tr> <td style="text-align: center;">96</td> <td style="text-align: center;">-- 003</td> <td style="text-align: center;">-- 0</td> </tr> </table>			Year	Sequential Number	Revision	96	-- 003	-- 0	REPORT DATE (7) <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:33%;">Month</td> <td style="width:33%;">Day</td> <td style="width:33%;">Year</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>			Month	Day	Year				OTHER FACILITIES INVOLVED (8) <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;">Facility Name</td> <td style="width:40%;">Docket Number</td> </tr> <tr> <td>FACILITY NAME</td> <td>DOCKET NUMBER</td> </tr> </table>			Facility Name	Docket Number	FACILITY NAME	DOCKET NUMBER
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OPERATING MODE (9) <div style="text-align: center; font-weight: bold;">N</div>			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)																														
POWER LEVEL (10) <div style="text-align: center; font-weight: bold;">100%</div>			20.2201(b)			20.2203(a)(2)(v)			<input checked="" type="checkbox"/>		50.73(a)(2)(i)		50.73(a)(2)(viii)																				
			20.2203(a)(1)			20.2203(a)(3)(i)					50.73(a)(2)(ii)		50.73(a)(2)(x)																				
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20.2203(a)(2)(iv)			50.365(2)					50.73(a)(2)(vii)																									
LICENSEE CONTACT FOR THIS LER (12)																																	
NAME David J. Distel, Regulatory Affairs Engineer						TELEPHONE NUMBER (Include Area Code) <div style="text-align: center; font-weight: bold;">201-316-7955</div>																											
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																																	
Cause	System	Component	Manufacturer	Reportable to NPRDS		Cause	System	Component	Manufacturer	Reportable to NPRDS																							
SUPPLEMENTAL REPORT EXPECTED (14)						EXPECTED SUBMISSION			<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:33%;">MONTH</td> <td style="width:33%;">DAY</td> <td style="width:33%;">YEAR</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>			MONTH	DAY	YEAR																			
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YES (If yes, complete EXPECTED SUBMISSION DATE)						NO <div style="text-align: center; font-weight: bold;">X</div>																											
ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)																																	
<p>On April 9, 1996, at approximately 1745 hours, with the plant operating at 100% power, it was determined that certain 4160 VAC Emergency Electrical Bus Grid Undervoltage relay contacts were not functionally tested as required by plant Technical Specification Table 4.1-1, Items 28 a & b. These instrument channels were declared inoperable and a 30 hour plant shutdown was commenced in accordance with Technical Specification 3.0.A.</p> <p>On April 10, 1996, at approximately 1255 hours, with the plant operating at 100% power, it was determined that certain Air Ejector Off-Gas (AEOG) line high radiation isolation relay contacts were not functionally tested as required by plant Technical Specification Table 4.1-1, Item 15. These instrument channels were declared inoperable and a 72 hour time clock was entered in accordance with Technical Specification Table 3.1-1, Item 1.</p> <p>Required contact testing was performed for both instrument functions to fulfill Technical Specification surveillance requirements. In both cases, contact operability was verified and the respective Technical Specification actions were terminated.</p> <p>The root cause of these events was inadequate testing procedures.</p> <p>The safety consequences of these events was minimal. The instrument channels were declared inoperable solely due to incomplete surveillance testing and were fully functional throughout the event, except while each was undergoing testing in accordance with corrective actions. This event is being reported pursuant to 10 CFR 50.73 (a)(2)(i) due to a deviation from plant Technical Specifications.</p>																																	

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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

DATE OF OCCURRENCE

These events occurred on April 9, 1996, at 1745 hours (undervoltage trip relay contacts) and on April 10, 1996, at 1255 hours (AEOG line isolation relay contacts).

IDENTIFICATION OF OCCURRENCE

Deviation reports identifying possible operability and/or reportability concerns in regards to incomplete testing of these circuits were issued on February 9, 1996 (OCNGS DRs 96-166 & 96-167). Determination of Technical Specification non-compliance was made on April 9, 1996, for inadequate testing of the Grid Undervoltage Logic circuits and on April 10, 1996, for inadequate testing of the AEOG line isolation logic circuits. These events are reportable under 10 CFR 50.73 (a)(2)(i).

CONDITIONS PRIOR TO OCCURRENCE

The reactor was in operation at approximately 100% power, with a generator load of approximately 650 MWe.

DESCRIPTION OF OCCURRENCE

On April 9, 1996, at approximately 1745 hours, it was determined that surveillance testing required by Technical Specification Table 4.1-1, Items 28a & b for the Undervoltage relay logic circuits did not test all possible logic combinations for actuation of the circuitry that is relied upon to cause fast start of the Emergency Diesel Generators (EDGs), separation of vital from non-vital busses, and bus load shedding in response to a loss of normal power to the station. The circuitry is divided into two sections, one for instantaneous loss of power trip and the other for sensed degraded grid conditions (delayed trip). Each section is further divided to form a two-of-three trip logic scheme. Each of the three trip channels utilizes a voltage sensing relay that continually monitors phase-to-phase voltage on the 4160 VAC emergency electrical bus. Although the system was designed to allow for on-line testing of each channel, on line testing of more than one channel at a time will result in actuation of the trip logic circuitry. Such testing can only be conducted with the plant shutdown under carefully controlled conditions. Even though trip tests of these circuits are conducted during each refueling outage the functional testing causes all three sensing circuits to trip simultaneously. Therefore, a successful test demonstrates that only the minimum number of possible trip combinations is functional.

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DESCRIPTION OF OCCURRENCE (Cont'd.)

Although this test demonstrates that the trip system actuates, the requirement to test all parallel paths of the trip logic circuitry to actuate the safety feature is not satisfied by this type of testing. Also, since this test causes an instantaneous complete loss of power to the emergency electrical bus, the degraded bus (delayed trip) portion of the trip logic was not demonstrated operable by this test.

The undervoltage relay circuits were declared inoperable and a 30 hour plant shutdown was commenced in accordance with Technical Specification Section 3.0.A. Required contact testing was performed to fulfill Technical Specification surveillance requirements. Contact operability was verified and the plant shutdown was terminated.

ENS notification, in accordance with 10 CFR 50.73 (a)(2)(i), was initiated on April 9, 1996, at 1850 hours after the determination of Technical Specification non-compliance was made for inadequate testing of the undervoltage relay contacts.

On April 10, 1996, at approximately 1255 hours, it was determined that surveillance testing required by Technical Specification Table 4.1-1, Item 15 for the AEOG line high radiation isolation logic circuits was deficient in that only one of three possible trip paths in the logic circuit was being tested. The sensing portion of this system consists of two independent radiation monitor channels (RN-12A & RN-12B). The isolation logic circuitry is driven by bistable units internal to the radiation monitors. An off-gas line isolation signal is produced by the following conditions: high radiation sensed by both radiation monitor channels or high radiation sensed by either channel with a coincident downscale signal (channel inoperable) from the opposite channel. The applicable surveillance procedures test the trip function of the radiation monitor channel internal bistable units individually. Verification of proper function is the receipt of the control room alarm. Since the AEOG isolation trip logic depends upon a combination of inputs from both radiation monitor channels, the complete trip logic is not exercised or verified by this type of testing. A test of the AEOG automatic isolation function is conducted each refueling outage. In this test, the system is tripped by de-energizing the RN-12A radiation monitor and then inserting a high radiation signal from the RN-12B radiation monitor. No test was conducted to verify operability of the other trip logic combinations.

The AEOG isolation logic circuits were declared inoperable and a 72 hour time clock was entered in accordance with Technical Specification Table 3.1-1, Item I. Required contact testing was performed to fulfill Technical Specification surveillance requirements. Contact operability was verified and the Technical Specification action was terminated.

ENS notification, in accordance with 10 CFR 50.73 (a)(2)(i), was initiated on April 10, 1996, at 1643 hours after the determination of Technical Specification non-compliance was made for inadequate testing of the AEOG relay contacts.

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APPARENT CAUSE OF OCCURRENCE

The root cause of the events was inadequate testing procedures. The surveillance procedures used to test the undervoltage relay logic circuits and the AEOG line high radiation isolation relay logic circuits failed to ensure that all portions of the logic circuitry were verified to function properly. Therefore, the surveillance procedures did not fully implement the Technical Specification requirements.

ANALYSIS OF OCCURRENCE

The safety significance of these events is minimal. The portions of the circuits for both the undervoltage relay logic and the AEOG line high radiation isolation relay logic which were not fully tested by the Technical Specification surveillance procedures consisted only of parallel paths of relay contacts. These parallel paths of relay contacts represent a small portion of the overall logic circuitry in both cases. Subsequent testing verified the undervoltage relay logic and AEOG line high radiation isolation relay logic parallel path relay contacts operated as designed.

The undervoltage relay logic and the AEOG line high radiation isolation relay logic, while technically inoperable, were fully functional throughout the event except while each was undergoing testing in accordance with plant corrective actions.

CORRECTIVE ACTION

OCNGS Engineering Evaluation No. 0120-96 was written to test the questionable undervoltage trip paths for each bus. The results of this test verified all undervoltage trip paths operated as designed. Testing was completed at 2342 hours on April 9, 1996.

OCNGS Engineering Evaluation No. 0121-96 was written to test the questionable AEOG line high radiation isolation trip paths for each channel. The results of this test verified all isolation trip paths operated as designed. Testing was completed at 0155 hours on April 11, 1996.

Long term corrective action will be to revise Technical Specification Surveillance Procedure Numbers 632.2.002, "Grid Undervoltage Channel Functional Test," and 621.3.033, "Air Ejector Off-Gas Radiation Monitor Calibration," to include logic testing of all undervoltage and AEOG line high radiation isolation trip paths.

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CORRECTIVE ACTION (Cont'd.)

Additionally, OCNGS Technical Specification Change Request No. 247 has been submitted to adopt the Standard Technical Specification, NUREG-1433, provisions to allow a period of 24 hours to complete a surveillance requirement upon discovery that the surveillance has been missed. This change will eliminate unnecessary plant transients caused by exceeding a surveillance interval.

A review of Technical Specification surveillance procedures is being performed in accordance with NRC Generic Letter 96-001 to verify that surveillance procedures adequately test all portions of safety-related logic circuits for Technical Specification systems and components within the scope of GL 96-01.

FAILURE DATA

No component failed in these events.

SIMILAR EVENTS

None