Consumers Power
POWERING
MICHIGAN'S PROGRESS
Palisades Nuclear Plant: 27780 Blue Star Memorial Highway, Covert, MI 49043

G B Slade
General Manager

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Nuclear Regulatory Commission
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Washington, DC 20555

DOCKET 50-255 - LICENSE DPR-20 - PALISADES PLANT -
LICENSEE EVENT REPORT 91-003-FAILURE TO TEST EMERGENCY DIESEL GENERATOR AUTO START INITIATING CIRCUITS

Licensee Event Report (LER) 91-003 (Failure To Test Emergency Diesel Generator Auto Start Initiating Circuits) is attached. This event is reportable to the NRC per 10CFR50.73(a)(2)(i)(C).

Gerald B Slade
General Manager

CC Administrator, Region III, USNRC
NRC Resident Inspector - Palisades

Attachment

IE22
1/1

NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
PALISADES PLANT	0 5 0 0 0 2 5 5	1 OF 0 3

TITLE (4)
FAILURE TO TEST DIESEL AUTO START CIRCUITS

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
0 5	2 0	9 0	9 1	— 0 0 3	— 0 0	0 1	2 8	9 1	N/A	0 5 0 0 0
									N/A	0 5 0 0 0

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	0 0 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
C. T. Hillman, Senior Licensing Engineer	AREA CODE 6 1 6 7 6 4 - 8 9 1 3

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 DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

ABSTRACT

On December 19, 1990, during the review of testing requirements, it was determined that, on May 20, 1990 and again on June 17, 1990, the emergency diesel generators (K6A and K6B) auto start initiating circuits had not been tested prior to start-up as required by Technical Specifications. At the time of discovery the plant was in cold shutdown for refueling and steam generator replacement.

This event was caused by a procedural inadequacy in Operations Check List (CL) 36. The procedural inadequacy resulted when the responsible engineer and procedure reviewers failed to identify that a recent facility change which caused a revision to CL 36 deleted a required TS test. No provision was made to ensure that this required test was incorporated into other procedures.

Corrective action for this event includes the development of technical specifications test procedures to test the auto start circuit of the diesel generators. Additionally, a review of technical specification surveillance requirements will be conducted to identify the testing requirements which are not performed by the technical specification surveillance procedures. The test requirements identified in this review will be incorporated into TS surveillance test procedures or flagged in the non-surveillance type procedures to reduce the possibility of inadvertent deletion.

This event did not involve the failure of any systems or components.

EVENT DESCRIPTION

During the review of testing requirements conducted on December 19, 1990 , it was determined that, on May 20, 1990, at 1100 hours, and again on June 17, 1990, at 0202 hours, the emergency diesel generators [EK;DG] (K6A and K6B) auto start initiating circuits [JE] had not been tested within one week prior to start-up as required by Technical Specification Table 4.1.2, Item 11.c. At the time of discovery the plant was in cold shutdown for refueling and steam generator replacement. Additional research into this issue revealed that three more start-ups occurred in which the diesel generator auto start initiating circuits had not been tested within one week prior to start-up. The dates of these start-ups were December 20, 1989, January 10, 1990 and March 3, 1990.

The circuits previously used to test the auto start feature were the turbine latch circuits, which when tripped manually, caused the emergency diesel generators to start. This feature was removed by Facility Change (FC) 800, "Offsite Power Modification." Manual tripping of the turbine latch circuits had previously been performed prior to startup as part of Operations Check List (CL) 36. However, CL-36 was revised as part of FC 800 which deleted an emergency diesel generator start on turbine trip. The FC identified the fact that diesel generator starts on turbine trips would be eliminated however, neither the responsible engineer (RE) nor the Operations personnel responsible for the changes to CL-36 identified that the procedure change resulting from FC 800 eliminated the performance of a required TS test. Safety evaluations which supported FC-800 did not adequately identify the impact on technical specifications. Although the turbine trip auto initiation of the diesel generator start was removed, other auto start features (ie. bus undervoltage) were not removed.

CAUSE OF THE EVENT

The event was caused by a procedural inadequacy. This procedural inadequacy resulted when the responsible engineer and procedure reviewers failed to identify that a recent facility change which caused a revision to Operations Check List (CL) 36 deleted a required TS test. No action was taken to ensure this required TS test was incorporated into other procedures.

ANALYSIS OF EVENT

The diesel generator start circuits were tested and verified operable several times during the past cycle of operation as described below, although not within seven days of start-up. Each diesel generator start logic consists of two redundant circuits. Actuation of either of these circuits results in a diesel generator start. Manual actuation switches in the circuitry initiates each of the start circuits simultaneously. These hand switches are tested monthly which confirms operation of at least one of the two redundant start circuits. This test was last successfully performed on December 15, 1990 and December 18, 1990 for each diesel, respectively.

The circuitry is also designed with undervoltage relays on the 2400V bus. These undervoltage relays actuate one of the redundant circuits on each diesel generator. These relays are calibrated each refueling outage. Auto start of the diesel generator due to undervoltage is tested each refueling as part of loss of offsite power testing. Each of the redundant start circuits for each diesel is individually tested by the procedure. This test was last successfully completed on November 23, 1988.

It is noted that proposed Combustion Engineering Owners Group Restructured Standard Technical Specifications do not require a test of the auto start circuit within seven days of plant start-up. While it is recognized that plant technical specifications were not strictly adhered to, it is believed that the testing that was performed was sufficient to verify operability of the diesel generator start circuits and therefore, public health and safety was not adversely affected.

This event is considered reportable under 10 CFR 50.73(a)(2)(i)(C) as a deviation from the plant's Technical Specifications.

CORRECTIVE ACTION

A technical specifications surveillance procedure will be developed to test the diesel generator auto start circuit in accordance with the requirements of Technical Specification Table 4.1.2, Item 11.c prior to the end of the 1990 refueling outage.

A review of technical specification surveillance requirements will be conducted to identify the testing requirements which are not performed by the technical specification surveillance procedures. The test requirements identified in this review will be incorporated into TS surveillance test procedures or flagged in the non-surveillance type procedures to reduce the possibility of inadvertent deletion.

ADDITIONAL INFORMATION

NONE