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NRC-91-065

10 CFR 50.73

July 15, 1991

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U. S. NUCLEAR REGULATORY COMMISSION
Mail Station P1-137
Washington, DC 20555

Gentlemen:

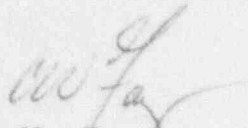
DOCKETS 50-266 AND 50-301
LICENSEE EVENT REPORT 91-006-00
INADVERTENT START OF EMERGENCY DIESEL GENERATOR
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

Enclosed is Licensee Event Report 91-006-00 for Point Beach Nuclear Plant, Units 1 and 2. This report is provided in accordance with 10 CFR 50.73(a)(2)(iv), "The licensee shall report...any event or condition that resulted in manual or automatic actuation of any engineered safety feature...."

This report describes the inadvertent start of emergency diesel generator G01 during routine operator log-taking.

If any further information is required, please contact us.

Very truly yours,


C. W. Fay
Vice President
Nuclear Power

Enclosure

Copy to: NRC Resident Inspector
NRC Regional Administrator, Region III

9107190049 910715
PDR ADOCK 05000266
S PDR

LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (F-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

Point Beach Nuclear Plant, Unit 1

DOCKET NUMBER (2)

0 5 0 0 0 2 6 6 1 OF 0 4

PAGE (3)

TITLE (4)

Inadvertent Start of Emergency Diesel Generator

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	6	1	5	9	1	9	1	1	Unit 2	0 5 0 0 0 3 0 1	
0	6	1	5	9	1	9	1	1		0 5 0 0 0 1	
OPERATING MODE (9)			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)								
N			20.402(b)			20.405(e)			X 50.73(a)(2)(iv)		
POWER LEVEL (10)			20.405(a)(1)(i)			50.36(a)(1)			50.73(a)(2)(v)		
11010			20.405(a)(1)(ii)			50.36(a)(2)			50.73(a)(2)(vi)		
			20.405(a)(1)(iii)			50.73(a)(2)(i)			50.73(a)(2)(vii)(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)(ix)		
			20.405(a)(1)(vi)			50.73(a)(2)(iv)			73.71(b)		
									73.71(c)		
									OTHER (Specify in Abstract below and in Text, NRC Form 366A)		

LICENSEE CONTACT FOR THIS LER (12)

NAME

J. C. Reisenbuechler

TELEPHONE NUMBER

AREA CODE

4 1 4 7 5 5 - 2 3 2 1

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC

SUPPLEMENTAL REPORT EXPECTED (14)

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

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

ABSTRACT

On June 15, 1991 emergency diesel generator G01 received a spurious fast start signal when an operator opened the generator's annunciator panel. The operator had difficulties opening the door, and when sufficient force was applied, relays were disturbed as the door opened. Subsequently, diesel generator G01 fast started, the "START FAILURE" alarm annunciated locally and the "DIESEL GENERATOR G01 STARTING SYSTEM DISABLED" alarm annunciated in the control room. G01 shutdown and examination was accomplished, and the generator's operation was declared normal. Because this event is an actuation of Engineered Safeguards Features (ESF) equipment, a four hour notification to the NRC was made in accordance with 10 CFR 50.72(b)(2)(ii).

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20556, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		91	006	00	2	OF	04
Point Beach Nuclear Plant, Unit 1	05000266						

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

EVENT DESCRIPTION

At 1605 on June 15, 1991 the "EMERGENCY DIESEL GENERATOR G01 STARTING SYSTEM DISABLED" alarm on control panel C02 annunciated. A check of control panel C02 showed that G01 had fast started but it's output breakers (1A52 and 2A52) had not closed on the two buses to which the emergency generator provides power (buses 1A05 and 2A05). Both buses were energized from their normal off-site power source.

At the time of the fast start, the Unit 2 Turbine Hall Auxiliary Operator (AO) was testing the G01 alarm panel as required. The following sequence occurred:

1. The AO pushed the "ALARM TEST" button. All alarm lights illuminated. However, the alarm bell did not sound as required.
2. The AO pushed the "ALARM RESET" button. All alarm lights cleared as required.
3. The AO unscrewed the bolts for annunciator panel C64A to inspect the alarm bell.
4. The C64A panel door was slightly stuck. When the operator pulled the door open, he heard relays actuate, the generator started, and the "START FAILURE" alarm annunciated.
5. The Unit 2 Control Room Operator placed G01 in "EXERCISE" and stopped the engine.
6. At 1703, Technical Specification Test TS-1 was initiated to determine operability of G01.
7. At 1852, TS-1 was satisfactorily completed. Emergency diesel G01 was declared operable.

Ensuing investigation involved opening the control panel by another AO and Engineer. The evolution was performed with no difficulty and generated no abnormal results.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN, PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 600 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-630), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Point Beach Nuclear Plant, Unit 1	DOCKET NUMBER (2) 10500026691	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		91	006	00	3	OF	4

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

EQUIPMENT DESCRIPTION

Each General Motors Corporation Turbo-Motive Division Model 999-20 emergency diesel generator set consists of a diesel engine directly coupled to a synchronous generator equipped with a regulated static-type exciter. The two emergency diesel generators (G01 & G02) function to provide emergency power to safeguards equipment in either unit in the event of loss of all other AC auxiliary power sources. To ensure a high degree of reliability, each unit incorporates two fuel systems, two dual air-driven starting motor banks, two fuel transfer pumps, and two starting control circuits. The sets are located in Seismic Class 1 rooms in the turbine building, El. 8', midway between Units 1 and 2.

A selector switch determines which bank of starting motors will be initially activated to start a diesel generator. If an engine fails to crank or fails to start after receiving a fast start signal, relay SFA (Start Failure Auxiliary--mounted on door of annunciator panel C64A) is picked up and initiates an alternate automatic starting sequence signal. At this time, the "START FAILURE" alarm will come on, followed by a start attempt by both banks of start motors.

CAUSE

It is suspected that the G01 Start Failure Auxiliary (SFA) relay (Deltrol Control Model 101-5509) was actuated when the panel door opened. This, in turn, caused the "START FAILURE" alarm to annunciate and activate G01 through it's alternate start sequence.

CORRECTIVE ACTIONS

Immediate:

1. Technical Specification Test TS-1 was initiated to determine operability of G01. The test was completed satisfactorily.

Short Term:

1. A Maintenance Work Request (MWR #912818) was initiated to examine the SFA relay and alarm bell in the G01 electrical control panel.
2. In continuing training, operators will be reminded that relays can actuate if panels are agitated.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)	PAGE (3)
Point Beach Nuclear Plant, Unit 1	0500026691	006-00	4 OF 4
YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	

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

Long Term:

1. Training will be conducted to address careful entry into all electrical cabinets.

REPORTABILITY

This event is being reported under the requirements of 10 CFR 50.73(a)(2)(iv), "The licensee shall report...any event or condition that resulted in a manual or automatic actuation of an engineered safety feature...." A four hour notification to the NRC was made per 10 CFR 50.72(b)(2)(ii). The NRC Resident Inspector was also notified.

SAFETY ASSESSMENT

The emergency diesel generator system operated as designed. Therefore, the safety of the plant and the health and safety of the public and plant employees were not jeopardized.

GENERIC IMPLICATIONS

A generic problem with the Start Failure Auxiliary (SFA) relay has not been identified. However, a maintenance work request has been initiated to evaluate the operability and possible replacement of this relay.

SIMILAR OCCURRENCES

Although there are no known past occurrences documented of this specific event, there have been two occurrences of personnel bumping into relays and causing inadvertent actuations.

On October 31, 1990, while pulling a cable in the safeguards cabinet (2C-157), an Instrumentation and Controls (I&C) Technician inadvertently bumped a relay located in the cabinet, causing a service water valve to the containment fan cooler to open. This event was reported in LER 301/90-004-00.

The second event occurred on December 13, 1990 when a relay in control board 2C02 was bumped, tripping all Unit 2 condensate and heater drain tank pumps. This event was reported in LER 301/90-005-00.