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NPL 97-0049

February 21, 1997

Document Control Desk
U.S. NUCLEAR REGULATORY COMMISSION
Mail Station P1-137
Washington, D. C. 20555

Ladies/Gentlemen:

DOCKETS 50-266 AND 50-301
LICENSEE EVENT REPORT 97-007-00
POTENTIAL EMERGENCY DIESEL GENERATOR OVERLOAD CONDITION
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

Enclosed is Licensee Event Report 97-007-00 for Point Beach Nuclear Plant, Units 1 and 2. This report is provided in accordance with 10 CFR 50.73(a)(2)(ii)(B), "Any event or condition that resulted in the nuclear power plant being in a condition that was outside the design basis of the plant." This report describes the possibility of two high-head safety injection pumps being started simultaneously on one emergency diesel generator (EDG) during inservice testing on one unit with a design basis accident on the other unit, potentially resulting in a EDG overload condition.

Please contact us if you require additional information.

Sincerely,

A handwritten signature in cursive script, appearing to read 'D. F. Johnson'.

D. F. Johnson
Manager
Regulatory Services &
Licensing

DAW/kmc

Enclosure

cc: NRC Resident Inspector
NRC Regional Administrator

9702270242 970221
PDR ADOCK 05000266
S PDR

270010

LICENSEE EVENT REPORT (LER)

(See reverse for required number of
digits/characters for each block)ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH
THIS 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

FACILITY NAME (1)

Point Beach Nuclear Plant, Unit 1

DOCKET NUMBER (2)

05000266

PAGE (3)

1 OF 3

TITLE (4)

Potential Emergency Diesel Generator Overload Condition

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 NAME	DOCKET NUMBER
01	24	97	97	-- 007 --	00	02	21	97	PBNP Unit 2	05000301
									FACILITY NAME	DOCKET NUMBER
										05000
OPERATING MODE (9)		N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
			20.2201(b)			20.2203(a)(2)(v)			50.73(a)(2)(i)	50.73(a)(2)(viii)
POWER LEVEL (10)		90	20.2203(a)(1)			20.2203(a)(3)(i)		X	50.73(a)(2)(ii)	50.73(a)(2)(x)
			20.2203(a)(2)(i)			20.2203(a)(3)(ii)			50.73(a)(2)(iii)	73.71
			20.2203(a)(2)(ii)			20.2203(a)(4)			50.73(a)(2)(iv)	OTHER
			20.2203(a)(2)(iii)			50.36(c)(1)			50.73(a)(2)(v)	Specify in Abstract below
			20.2203(a)(2)(iv)			50.36(c)(2)			50.73(a)(2)(vii)	or in NRC Form 366A

LICENSEE CONTACT FOR THIS LER (12)

NAME

David Weaver

TELEPHONE NUMBER (Include Area Code)

(414) 221-3418

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)

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

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On January 24, 1997, Point Beach Nuclear Plant (PBNP), Unit 1, was operating at 90 percent power and Unit 2 was shut down and defueled during its annual refueling outage. During evaluation of procedure reviews for performing high-head safety injection (HHSI) system fill and venting, plant personnel determined that the potential existed for an emergency diesel generator (EDG) overload condition. When one EDG is aligned to supply the safeguards buses for both units and a HHSI pump is operated on one unit, an opposite unit safety injection actuation and a total loss of off-site power would result in the starting of the opposite unit's HHSI pump. This would result in two HHSI pumps being powered by one EDG, which is outside the design basis of the plant and creates the potential for a EDG overload condition. Procedure changes are being implemented to prevent EDG overload when testing HHSI pumps when a EDG is being shared between units. A Unit 1 one-hour report and a Unit 2 four-hour report was provided to the NRC in accordance with 10 CFR 50.72. The NRC resident inspectors were also notified.

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TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
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Point Beach Nuclear Plant, Unit 1	05000266	97	007	00	2 OF 3

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

Event Description:

On January 24, 1997, Point Beach Nuclear Plant (PBNP), Unit 1, was operating at 90 percent power and Unit 2 was shut down and defueled during its annual refueling outage. During evaluation of procedure reviews for performing high head safety injection (HHSI) system fill and venting, plant personnel determined that the potential existed for an emergency diesel generator (EDG) overload condition. When one EDG is aligned to supply the safeguards buses for both units and a HHSI pump is operated on one unit, an opposite unit safety injection actuation and a total loss of off-site power would result in the starting of the opposite unit's HHSI pump. The EDG would additionally supply power to the non-accident unit HHSI pump along with providing power to all the safety-related EDG loads sequenced on for the accident unit. This condition could result in an EDG overload since a dual-unit loss-of-coolant accident and safeguards actuation is not considered a credible event and, therefore, the EDGs were not designed to supply power to two HHSI pumps concurrently. This condition is unique to the HHSI pumps because the pumps are not tripped on undervoltage and are not stripped from their associated buses on safety injection actuation. Procedure changes are being implemented to prevent EDG overload when testing HHSI pumps when an EDG is being shared between units.

Corrective Actions:

Temporary changes to Inservice Test Procedures IT-01, "High Head Safety Injection Pumps and Valves (Quarterly), Unit 1," and IT-02, "High Head Safety Injection Pumps and Valves (Quarterly), Unit 2," eliminated the EDG overload concern by placing a HHSI pump in "Pullout" prior to operating a HHSI pump from the same safeguards train in the other unit. This action is only required when an EDG is aligned to supply power to both unit's emergency power supplies (1&2A-05 or 1&2A-06). Permanent changes to IT-01 and IT-02 will be completed as part of the normal procedure review cycle.

An evaluation will be conducted to determine a possible hardware/logic modification to prevent the potential EDG overload condition from occurring.

Cause:

When the plants were initially licensed with only two EDGs, Operations recognized the potential of EDG overload with a dual unit safety injection actuation coincident with a total loss of off-site power. Operators were trained that it would be necessary under this dual unit safety injection scenario to deenergize one train of engineered safeguards equipment by selectively opening one of the output breakers on each EDG to ensure one train of safeguards power to each unit and to prevent EDG overload conditions. There was no recognition that during testing of a unit's HHSI pump coincident with the design basis accident

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

on the other unit a potential EDG overload condition for that train could exist.

After two new EDGs were added to make the station a four-EDG station, the normal expected safeguards bus electrical alignment would be four EDGs with one EDG dedicated to each bus, thus eliminating the potential EDG overload condition. Again, the potential EDG overload due to concurrent HHSI pump testing was not recognized. However, subsequent procedure reviews identified the EDG overload possibility, and necessary procedure changes were made.

Reportability:

This Licensee Event Report is being submitted in accordance with the requirements of 10 CFR 50.73(a)(2)(ii)(B), "Any event or condition that resulted in the nuclear power plant being in a condition that was outside the design basis of the plant." A Unit 1 one-hour report and a Unit 2 four-hour report was provided to the NRC in accordance with 10 CFR 50.72. The NRC resident inspectors were also notified.

Safety Assessment:

This condition could have potentially loaded the shared EDG above the half-hour rating for EDGs G-01 and G-02 and above the four-hour rating for EDGs G-03 and G-04. Although the EDG of one safeguards train could have overloaded and become inoperable, the other safeguards train EDG(s) would have been operable and supplied the required safeguards loads. Therefore, the health and safety of the public and plant personnel were not impacted by this event.

Similar Occurrences:

No similar previous events have been identified.