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

#### EVENT

On January 4, 1987, at 1005, with Unit 3 in Hot Standby, upon attempting to start the 3B Steam Generator Feedwater Pump (SGFP), Auxiliary Feedwater (AFW) flow was automatically initiated. At this time, the 3A SGFP was not running, and the standby SGFP's were turned off. During this event, the operator turned the control switch for the 3B SGFP to the "Start" position, then released it. The pump did not start, and AFW flow was initiated. The SGFP control switch has 3 positions: "Start", "Stop", and a center neutral position. The AFW auto-start logic is enabled upon turning the SGFP pump control switch to the "Start" position, followed by returning the switch to the neutral position. Following the event, a thorough check of the electrical circuits from the control switch to the pump, including the control switch, revealed no malfunctions. The SGFP breaker was verified to be functioning properly. Following verification of proper function of the circuits, switch, and breaker, another attempt to start the SGFP was made. The SGFP started properly on this attempt. AFW flow was terminated and normal SGFP flow was initiated. SGFP starts will be closely monitored to identify any future problems involving failure to start.



NRC Form 366A (9-83)	LICENSEE EVENT REP	TINUATION	U.S. NUCLEAR REGULATORY COMMISSION APPROVED OMB NO. 3150-0104 EXPIRES: 8/31/88			
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## EVENT

Turkey Point Unit 3

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

On January 4, 1987, at 1005, with Unit 3 in Mode 3 (Hot Standby), and Unit 4 at 100% power, upon attempting to start the 3B Steam Generator Feedwater Pump (SGFP), Auxiliary Feedwater (AFW) flow was automatically initiated. Automatic AFW flow initiation occurs if both SGFP breakers are open (neither pump running), and at least one SGFP was stopped by a means other than the SGFP control switch. At the time of the event, the 3A SGFP was not running, and the standby SGFP's were turned off. During this event, the operator turned the control switch for the 3B SGFP to the "Start" position, held it there for several seconds, then released it. The pump did not start, and AFW flow was initiated.

### CAUSE OF EVENT

The SGFP control switch has 3 positions: "Start", "Stop", and a center neutral position to which the switch returns after operation. The AFW auto-start logic is enabled upon turning the SGFP control switch to the "Start" position, followed by returning the switch to the neutral position. Pump start is indicated by the green SGFP status light going out and the red status light becoming lit, and the SGFP ammeter indicating high current flow. The start light never became lit during this event, and no current flow was indicated. Potential causes of the failure to start were:

- 1) Operator failure to hold the switch in the full start position.
- 2) Dirty contacts in the control switch preventing electrical connection of the contacts required for the SGFP start.
- 3) Failure of other switches and/or relays in the circuitry.
- 4) Breakage of wiring between circuit components.
- 5) SGFP breaker failure to make up upon receipt of the start signal.

Following the event, a thorough check of the above potential causes of the failure to start was initiated. The operator stated that he was monitoring the start light and the ammeter at all times. When he confirmed that the control switch was in the full start position and the start light and ammeter were indicating a failure of the SGFP to start, he released the switch. The conclusion is that the operator did hold the switch in the full start position. The Electrical Department performed a thorough check of the control switch, verifying that the contacts were capable of making a proper electrical connection. Each component in the circuitry between the control switch and the SGFP breaker, including the SGFP breaker, was verified to be functioning properly. Voltage and continuity measurements of the circuitry as a whole verified that the wiring was not broken. Following the above verifications, another attempt to start the SGFP was made. The SGFP started properly on this attempt.

NRC Form 366A (9-63)	LICENSEE EVENT REPO	RT (LER) TEXT CON	U.S. NUCLEAR REGULATORY COMMISSION APPROVED OMB NO. 3150-0104 EXPIRES: 8/31/88			
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## ANALYSIS OF EVENT

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

Turkey Point Unit 3

The unit was in Mode 3 at the time of the event. The AFW pumps automatically started and operated per design. Based on the above, the health and safety of the public were not affected.

# CORRECTIVE ACTION

- 1) The 3B SGFP control circuit, including the circuitry, control switch, and the SGFP breaker, was verified to be functioning properly.
- 2) AFW flow was terminated and normal SGFP flow was initiated.
- SGFP starts will be closely monitored to identify any future problems involving failure to start.

ADDITIONAL DETAILS

Similar Occurrences: None

P. O. BOX 14000, JUNO BEACH, FL 33408-0420



FEBRUARY 3 1987 L-87-51 10 CFR 50.73

U. S. Nuclear Regulatory Commission Attn: Document Control Desk Washington, D. C. 20555

Gentlemen:

1

Re: Reportable Event 87-01 Turkey Point Unit 3 Docket No. 50-250 Date of Event: January 4, 1987 Automatic Auxiliary Feedwater Pump Actuation Following Attempt to Start Steam Generator Feedwater Pump

The attached Licensee Event Report is being submitted pursuant to the requirements of 10 CFR 50.73 to provide notification of the subject event.

Very truly yours,

C. O. Woody

Group Vice President Nuclear Energy

COW/RG/gp

Attachment

cc: Dr. J. Nelson Grace, Regional Administrator, Region II, USNRC Senior Resident Inspector, USNRC, Turkey Point Plant