



L-2013-169
10 CFR § 50.73
May 13, 2013

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555-0001

Re: Turkey Point Unit 3
Docket No. 50-250
Reportable Event: 2013-006-00
Reactor Protection and Auxiliary Feed Water System Actuations Due to Trip of
Operating Feed Water Pumps

The attached Licensee Event Report 05000250/2013-006-00 is submitted in accordance with 10 CFR 50.73(a)(2)(iv)(A) due to Reactor Protection and Auxiliary Feed Water System actuations.

If there are any questions, please call Mr. Robert J. Tomonto at 305-246-7327.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Michael Kiley', written in a cursive style.

Michael Kiley
Vice President
Turkey Point Nuclear Plant

Attachment

cc: Regional Administrator, USNRC, Region II
Senior Resident Inspector, USNRC, Turkey Point Nuclear Plant

HEAD
MKR

1. FACILITY NAME: Turkey Point Unit 3
 2. DOCKET NUMBER: 05000250
 3. PAGE: 1 of 3

4. TITLE: Reactor Protection and Auxiliary Feed Water System Actuations Due to Trip of Operating Feedwater Pump

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
3	13	2013	2013	006	00	5	13	2013	FACILITY NAME	DOCKET NUMBER

9. OPERATING MODE: 3

10. POWER LEVEL: 0

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: (Check all that apply)

<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)
<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)
<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)
<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)
<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)
<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)
<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)0	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)
<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> OTHER
<input type="checkbox"/> 20.2203(a)(2)(vi)	<input type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(v)(D)	

Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

NAME: Paul F. Czaya
 TELEPHONE NUMBER (Include Area Code): 305-246-7150

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

14. SUPPLEMENTAL REPORT EXPECTED: YES (If yes, complete 15. EXPECTED SUBMISSION DATE) NO

15. EXPECTED SUBMISSION DATE: MONTH: DAY: YEAR:

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

On March 13, 2013 at approximately 1120 with Unit 3 in Mode 3, the Auxiliary Feed Water (AFW) System actuated. Subsequently, at approximately 1131 operators initiated a manual reactor trip. Just prior to these events, one Condensate Pump (CP) and one Steam Generator Feed Pump (SGFP) were in operation, when a field operator started a second SGFP for a one minute run to vent the supply header and casing. The plant is designed to only allow a single SGFP to operate with a single CP operating. This condition resulted in automatic trip of the running SGFP and AFW actuation. Operators then secured the just-started SGFP. AFW injected cooler water into the SGs reducing reactor coolant system temperature. Operators opened the reactor trip breakers via the manual reactor trip switch to obtain additional shut down margin, as a conservative measure. Operators started a Standby Steam Generator Feed Pump to maintain level in the SGs and secured both trains of AFW. The cause of the event is that licensed unit operators did not maintain adequate command and control of activities outside the control room allowing a decision to start the second SGFP to be made at the wrong organizational level. Corrective action will include implementation and assessment of the effectiveness of the improvement plan to reinforce operational standards.

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NARRATIVE

DESCRIPTION OF THE EVENT

On March 13, 2013 at approximately 1120 with Unit 3 in Mode 3, the Auxiliary Feed Water (AFW) System [BA] automatically actuated. In order to facilitate planned work on Steam Generator Feed Pump (SGFP) [SJ, P] power supplies, feed water supply to the steam generators (SG) [SB, SG] was to be swapped from the operating 3B SGFP to the 3A SGFP. With the 3A Condensate Pump (CP) [SD, P] and the 3B SGFP running, the 3A SGFP was started for a one minute run to fully vent the suction header and pump casing through the pump minimum flow recirculation line causing the operating 3B SGFP to trip and AFW to actuate. Operators then manually shut down the 3A SGFP.

SGFP protection logic ensures that at least two CPs are operating when two SGFPs are operating. In this event with only one CP in operation, upon start of the 3A SGFP, the 3B SGFP tripped automatically after a short time delay. AFW actuated because of the trip of the 3B SGFP which was aligned to the SGs.

AFW actuation added cooler water into the SGs reducing reactor coolant system (RCS) [AB] temperature. Operators opened the reactor trip breakers [JC, BKR] via the manual reactor trip switch [JC, HS] at approximately 1131 to obtain additional shut down margin, as a conservative measure.

At approximately 1205, the 3A Standby Steam Generator Feed Pump (SBSGFP) [SJ, P] was started to maintain level in the SGs. By approximately 1240, both trains of AFW were secured to operable standby status.

Because reactor protection system (RPS) and AFW actuations occurred, this event is reportable in accordance with 10 CFR 50.73(a)(2)(iv)(A). Event Notification 48821 was made on 3/13/13.

CAUSE OF THE EVENT

The root cause is that licensed unit operators did not maintain adequate command and control of activities outside the control room. A contributing cause is that the decision to start the second SGFP with only one CP operating was made at the wrong organizational level.

ANALYSIS OF THE EVENT

A non-licensed operator (NLO) was given the task to start the 3A SGFP. The NLO reviewed the procedure, received a brief from the nuclear watch engineer, verified plant conditions and had a peer check for assurance of correct actions. The procedure review included the precautions and limitations regarding required CP/SGFP operating combinations – at least one CP for one SGFP, at least two CPs for two SGFPs, however the NLO misunderstood a note in the procedure. The note stated that the SGFP breaker was simulated open, but this was only correct in regard to AFW auto-start logic and not the operating CP interlock. The mistake was not recognized. The 3A SGFP was started by the NLO locally without coordination with the control room operator who did not maintain command and control of the evolution.

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NARRATIVE

ANALYSIS OF SAFETY SIGNIFICANCE

Upon the trip of the SGFP supplying the SGs, AFW automatically actuated. Subsequently, the 3A SBSGFP was started to maintain SG levels and AFW was restored to operable standby status. The manual RPS actuation was conservatively employed to provide additional shut down margin when AFW actuation lowered RCS temperature. The unit was not critical in Mode 3 when this event occurred. The systems discussed in this report operated as designed. Therefore, the safety significance of this event is very low.

CORRECTIVE ACTIONS

Corrective actions are documented in AR 1856476 and include the following:

Implement and assess the effectiveness of the improvement plan to reinforce operational standards.

FAILED COMPONENTS IDENTIFIED: None

PREVIOUS SIMILAR EVENTS: None