



L-2014-067  
10 CFR § 50.73  
March 4, 2014

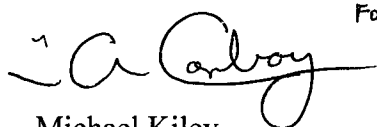
U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D. C. 20555-0001

Re: Turkey Point Unit 3  
Docket No. 50-250  
Reportable Event: 2014-001-00  
Missed Surveillance Test Resulted in a Steam Generator Pressure Instrument Channel  
to be Inoperable Longer than Allowed Outage Time

The attached Licensee Event Report 05000250/2014-001-00 is submitted in accordance with  
10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by the Technical Specifications.

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

Very truly yours,



For M. KILEY

Michael Kiley  
Vice President  
Turkey Point Nuclear Plant

Attachment

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

IE22  
NCR

<b>NRC FORM 366</b> (10-2010)		<b>U.S. NUCLEAR REGULATORY COMMISSION</b>		APPROVED BY OMB: NO. 3150-0104  Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA/Privacy Section (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects.resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.		EXPIRES: 10/31/2013						
<b>LICENSEE EVENT REPORT (LER)</b>												
1. FACILITY NAME <div style="text-align: center;">Turkey Point Unit 3</div>					2. DOCKET NUMBER <div style="text-align: center;">05000250</div>		3. PAGE <div style="text-align: center;">1 of 4</div>					
4. TITLE <div style="text-align: center;">Missed Surveillance Test Resulted in a SG Pressure Instrument Channel to be Inoperable Longer than AOT</div>												
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	
1	3	2014	2014	001	00	3	4	2014				
9. OPERATING MODE <div style="text-align: center;">1</div>			11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: <i>(Check all that apply)</i>									
10. POWER LEVEL <div style="text-align: center;">100</div>			<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 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 checked="" 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 <div style="text-align: center;">Paul F. Czaya</div>								TELEPHONE NUMBER (Include Area Code) <div style="text-align: center;">305-246-7150</div>				
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								15. EXPECTED SUBMISSION DATE		MONTH	DAY	YEAR
<input type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE)								<input checked="" type="checkbox"/> NO				
ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)												
<p>On January 3, 2014 with the Unit 3 reactor in Mode 1 at 100% power, the instrument channel associated with Main Steam Line Pressure Transmitter PT-3-495 was found outside procedural acceptance criteria due to PT drift. PT-3-495 was replaced, calibrated successfully, and returned to service on January 4, 2014. Subsequent review determined the instrument channel was inoperable from March 9, 2013 to January 3, 2014. During the period of inoperability, the allowed outage time of 6 hours was exceeded without taking the required action to place the channel in the tripped condition and the shutdown actions of Technical Specification (TS) 3.0.3 were not entered. This event is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by the TS. The root cause is attributed to a deviation from the normal process of using a dedicated work order (WO) to satisfy surveillance requirements. As result, Instrumentation and Control supervision failed to validate WO activities credited for satisfying TS requirements. As corrective action, the surveillance tracking program procedure will be revised to state that an independent verification is to be performed and documented prior to approval that a surveillance test has been completed when crediting non-dedicated WOs. An extent of condition review was also performed. Safety significance remained low during the period the instrument channel was inoperable because both redundant channels remained available.</p>												

LICENSEE EVENT REPORT (LER)  
CONTINUATION SHEET

1. FACILITY NAME	2. DOCKET NUMBER	6. LER NUMBER			3. PAGE
Turkey Point Unit 3	05000250	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	Page 2 of 4
		2014	- 001	- 00	

## NARRATIVE

## DESCRIPTION OF THE EVENT

On January 3, 2014 with the Unit 3 reactor [AC, RCT] in Mode 1 at 100% power during performance of the channel calibration surveillance procedure for Main Steam Line Pressure Transmitter [JE, PT] PT-3-495, the instrument channel was found outside procedural acceptance criteria due to PT drift. PT-3-495 was replaced, calibrated successfully, and returned to service on January 4, 2014.

PT-3-495 drifted such that the output was higher than the actual value of steam pressure and its associated trip function would not have protected the safety analysis limit rendering the channel inoperable. Subsequent review determined the instrument channel is considered inoperable from the time of the due date for a missed surveillance test of March 9, 2013 to January 3, 2014.

During the period of inoperability, the instrument channel associated with PT-3-495 remained in service exceeding the allowed outage time of 6 hours with the required action to place the channel in the tripped condition not taken and the shutdown actions of Technical Specification (TS) 3.0.3 not entered. Therefore, this event is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by the TS.

## CAUSE OF THE EVENT

The root cause is attributed to a deviation from the normal process of using a dedicated work order (WO) to satisfy Surveillance Requirements (SR), which created an error likely situation for which no compensatory action was established. As result, Instrumentation and Control (I&C) supervision failed to validate WO activities credited for satisfying TS requirements.

## ANALYSIS OF THE EVENT

Background

PT-3-495 is an input to Engineered Safety Features Actuation System TS Table 3.3-2, Functional Unit 1.e, High Differential Pressure Between the Steam Line Header and any Steam Line. PT-3-495 provides the Steam Generator (SG) [SB, SG] 'C' Channel III pressure signal for this function. SG pressure is equivalent to Steam Line pressure referred to in the TS. This function is required in Modes 1, 2 and 3 (Mode 3 if Pressurizer [AB, PZR] pressure is greater than or equal to 2000 psig). This transmitter also provides the steam pressure correction for the Steam Flow/Feedwater Flow mismatch coincident with SG Water Level - Low reactor trip signal (TS Table 3.3-1, Functional Unit 12). Any error in measured steam flow affects the accuracy of the steam flow computation.

The function provided by PT-3-495 is used in the analysis for secondary side high energy line breaks. The transmitter provides the pressure signal (one of three channels) for the individual steam line associated with the 'C' SG to the instrument channel. The function initiates safety injection (SI) [BQ], feedwater line isolation, and steam line isolation.

LICENSEE EVENT REPORT (LER)  
CONTINUATION SHEET

1. FACILITY NAME	2. DOCKET NUMBER	6. LER NUMBER			3. PAGE
Turkey Point Unit 3	05000250	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	Page 3 of 4
		2014	- 001	- 00	

## NARRATIVE

Updated Final Safety Analysis Report, Chapter 14, Section 14.2.5 describes the Steam Line Rupture accident analysis. In this analysis, steam release from more than one SG will be prevented by automatic closure of the Main Steam Isolation Valves (MSIV) [SB, ISV] in the steam lines either by high containment [NH] pressure signals or by high steam flow coincident with low steam line pressure. For a break upstream of the MSIVs, MSIV closure is not required due to the presence of the Main Steam Check Valves [SB, SHV], which prevent blowdown of the non-faulted SGs. In this case, SI actuation would occur from high differential steam pressure between the faulted steam line and the main steam header.

SI is actuated by high steam line differential pressure in any loop. The differential pressure signals are derived by two out of three low steam line pressure signals in one line compared with main steam header pressure. The SI signal will subsequently trip the reactor and actuate main feedwater isolation. A manual block of this signal is allowed when Pressurizer pressure is below 2000 psig. The SI System provides borated water to the reactor core during a steam line break in order to counter any positive reactivity insertion due to cool down of primary coolant. Main feedwater isolation and steam line isolation are initiated to limit primary system cool down and to limit the mass and energy releases through the break.

Analysis

On April 26, 2011, PT-3-495 was successfully calibrated. An I&C supervisor incorrectly approved the next surveillance test as complete. The approval was based on the review of WOs associated with replacement of instrument channel modules; however, while the WOs did specify post maintenance tests they did not include calibration of the associated transmitter. Normally, a dedicated WO would be used for the surveillance test. As a result, the TS SR for calibration was not met. This missed SR was subsequently recognized and the test was performed on January 3, 2014 which determined the channel had been inoperable.

While a specific date cannot be established for when the transmitter drifted out of specification, the date the missed surveillance was due of March 9, 2013 is used consistent with the guidance in NUREG-1022, Revision 3, Section 3.2.2 for the start of inoperability. The transmitter was in a degraded condition likely due to age and was replaced.

Reportability

The TS Limiting Condition for Operation (LCO) 3.3.2, Table 3.3-2, Functional Unit 1.e requirement for three operable channels was not met during the period of inoperability. Because the required action to place the channel in trip was not met within the allowed outage time of 6 hours and the shutdown actions of TS 3.0.3 were not entered a condition prohibited by the TS existed, reportable in accordance with 10 CFR 50.73(a)(2)(i)(B).

## ANALYSIS OF SAFETY SIGNIFICANCE

While Steam Generator Pressure Channel III could respond to the lower pressure of a steam line break, it could not do so within its required range and so was inoperable. Safety significance remained low during the

LICENSEE EVENT REPORT (LER)  
CONTINUATION SHEET

1. FACILITY NAME	2. DOCKET NUMBER	6. LER NUMBER			3. PAGE
Turkey Point Unit 3	05000250	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	Page 4 of 4
		2014	- 001	- 00	

## NARRATIVE

period Channel III was inoperable because both redundant Channels II and IV (there is no Channel I) remained available and were proven to be operable by the performance of their respective surveillances. Regarding the failure of Channel III, the assumed failure of PT-3-495 has no noticeable impact on Core Damage Frequency (CDF). Any delta CDF is well below the NRC threshold of 1E-6 per year for low risk significance.

## CORRECTIVE ACTIONS

Corrective actions are in accordance with condition report 1938191 and include the following:

1. PT-3-495 was replaced, the channel was tested satisfactorily and returned to service.
2. The surveillance tracking program procedure will be revised to state that an independent verification is to be performed and documented in the surveillance tracking program prior to approval that a surveillance test has been completed when crediting non-dedicated WOs.
3. A review of WOs was conducted to ascertain the extent of condition.

## ADDITIONAL INFORMATION

EIIS Codes are shown in the format [IEEE system identifier, component function identifier, second component function identifier (if appropriate)].

FAILED COMPONENTS IDENTIFIED: Rosemount Pressure Transmitter 1153GB

PREVIOUS SIMILAR EVENTS: None