

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Turkey Point Unit 3	DOCKET NUMBER (2) 0 5 0 0 0 0 2 5 0	PAGE (3) 1 OF 0 1 2
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TITLE (4)
Engineered Safety Feature Actuation - Turbine Runback

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	5	14	84	015	00	0	6	13	N/A		
									0 5 0 0 0 0		

OPERATING MODES (9) N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)										
POWER LEVEL (10) 11010	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.406(a)	<input checked="" type="checkbox"/> 80.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)							
	<input type="checkbox"/> 20.406(a)(1)(i)	<input type="checkbox"/> 80.36(a)(1)	<input type="checkbox"/> 80.73(a)(2)(v)	<input type="checkbox"/> 73.71(a)							
	<input type="checkbox"/> 20.406(a)(1)(ii)	<input type="checkbox"/> 80.36(a)(2)	<input type="checkbox"/> 80.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)							
	<input type="checkbox"/> 20.406(a)(1)(iii)	<input type="checkbox"/> 80.73(a)(2)(i)	<input type="checkbox"/> 80.73(a)(2)(vii)(A)								
	<input type="checkbox"/> 20.406(a)(1)(iv)	<input type="checkbox"/> 80.73(a)(2)(ii)	<input type="checkbox"/> 80.73(a)(2)(vii)(B)								
	<input type="checkbox"/> 20.406(a)(1)(v)	<input type="checkbox"/> 80.73(a)(2)(iii)	<input type="checkbox"/> 80.73(a)(2)(ix)								

LICENSEE CONTACT FOR THIS LER (12)

NAME Paul A. Roach, Regulation and Compliance Engineer	TELEPHONE NUMBER
	AREA CODE: 3 0 5 2 4 5 1 - 2 9 1 1 0

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPD'S	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPD'S
X	JIE	RJIXI	P131213	Y					
X	CIC	CIOIN	C171210	Y					

SUPPLEMENTAL REPORT EXPECTED (14)

<input type="checkbox"/> YES (if yes, complete EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR

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

On May 14, 1984, a turbine runback occurred. The root cause was determined to stem from an instrument power supply failure in the Nuclear Instrumentation System (NIS) that resulted in an 'NIS Rod Drop' signal (NIS Channel N-41) which generated the turbine runback. All equipment functioned as designed. Immediate corrective actions included prompt identification of the cause of the runback and restoration of full power operation, tripping the associated reactor trip bistables for the NIS Channels removed from service and isolation of the failed power supply and return to service of NIS Channel N-41. The health and safety of the public were not affected. Similar occurrences: LER 250-84-009 and LER 250-84-013.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		8 4	0 1 5	0 0	0 2	OF 0 2

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

On May 14, 1984, at 5:22 a.m., a turbine runback to approximately 510 megawatts occurred. The root cause was determined to stem from an instrument power supply failure located in the nuclear instrumentation system (NIS) drawer for intermediate range (IR) channel N-35 nuclear instrumentation. A hard ground attributed to the failure tripped breaker 14 in a vital 120 volt (a.c.) instrument power buss (Panel 3P06). This de-energized an isolation transformer and removed detector voltage (supplied by the transformer) from source range (SR) channel N-31, IR channel N-35, and power range (PR) channel N-41 nuclear instrumentation. NIS PR channel N-41 generated an 'NIS Rod Drop' signal on loss of voltage to its detector and resulted in the turbine runback.

An investigation into the event identified the failure and associated hard ground to be in the IR channel N-35 high voltage instrument power supply. The instrument power fuses were pulled from N-35 and breaker 14 in Panel 3P06 closed in without problem. A low resistance (it should be high) was measured between the inner and outer shield on the high voltage cable for the N-35 detector. NIS IR channel N-35 will remain out of service until the unit comes down to enable personnel access inside the bio-wall to troubleshoot and correct the problems.

Another separate problem occurred that caused breaker 10 to trip in vital Panel 3P06 and was identified when breaker 14 was discovered tripped. Breaker 10 was reset and closed in but grounds were indicated to be occurring on the 3C inverter supplying power to Panel 3P06. The grounds cleared when breaker 10 in Panel 3P06 was opened and plant personnel began an investigation. The fault was isolated to a terminal box (TB 3200) inside containment. Leads were lifted to TB 3200 to enable closure of breaker 10 and repowering other loads fed by breaker 10.

Containment entries at power by plant personnel resulted in identifying and correcting the source of the grounds. A lock nut on an end coupling connecting the electrical conduit between TB 3200 and FIC-3-629 to FIC-3-629 (RCP 'A' component cooling water (CCW) return flow-low flow annunciator input) was found loose. This allowed the conduit to pull away from FIC-3-629 and the wiring to impart loads on a relay internal to FIC-3-629. FIC-3-629 is a Model 3623, AR-Met Rotometer with a Model 6311 indicating alarm extension. The relay (R.B.M., part #9-831) is picked up by a magnetic reed switch which closes when RCP 'A' CCW return flow is greater than 140 gpm. The loads placed on the relay dislodged its cover, exposing its coil and allowing it to eventually short to ground. The conduit and connector were refastened to FIC-3-629. The wiring was checked, the relay was replaced, and a satisfactory circuit resistance check completed prior to relanding the leads in TB 3200. The annunciator for "RCP 'A' CCW Low Return Flow" cleared when the circuit was energized and the equipment has functioned without problem since.



June 13, 1984
PNS-LI-84-207

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

Gentlemen:

Re: Reportable Event 84-015
Turkey Point Unit 3
Date of Event: May 14, 1984

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

Very truly yours,

A handwritten signature in cursive script, appearing to read "J. W. Williams, Jr.", is written over the typed name.

J. W. Williams, Jr.
Group Vice President
Nuclear Energy

JWW/RJS/js

Attachment

cc: J. P. O'Reilly, Region II, USNRC
Harold F. Reis, Esquire
File 933.1

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