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Waterford 3

W3F1-2000-0174
A4.05
PR

December 18, 2000

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

Subject: Waterford 3 SES
Docket No. 50-382
License No. NPF-38
Reporting of Licensee Event Report

Gentlemen:

Attached is Licensee Event Report (LER) 00-013-00 for Waterford Steam Electric Station Unit 3. This report provides details of a mode change during plant operation that was prohibited by the plant's Technical Specifications. This condition is being reported pursuant to 10CFR50.73(a)(2)(i)(B).

Very truly yours,

A handwritten signature in black ink that reads "Everett P. Perkins, Jr." with a stylized flourish at the end.

E.P. Perkins, Jr.
Director,
Nuclear Safety Assurance

EPP/GCP/ssf
Attachment

cc: E.W. Merschoff, (NRC Region IV), N. Kalyanam, (NRC-NRR),
A.L. Garibaldi, lerevents@inpo.org - INPO Records Center,
J. Smith, N.S. Reynolds, NRC Resident Inspectors Office,
Louisiana DEQ/Surveillance Division

IE22

Estimated burden per response to comply with this mandatory 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 Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503. If 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.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)
Waterford Steam Electric Station, Unit 3

DOCKET NUMBER (2)
05000-382

PAGE (3)
1 of 5

TITLE (4)
Technical Specification Violation Due to Failure to Perform Surveillance Required for Mode Change.

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
11	16	00	00	013	00	12	18	00	N/A	N/A
									N/A	N/A

OPERATING MODE (9)	POWER LEVEL (10)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more) (11)								
1	005	20.2201(b)	20.2203(a)(2)(v)	X	50.73(a)(2)(i)	50.73(a)(2)(viii)				
		20.2203(a)(2)(i)	20.2203(a)(3)(i)		50.73(a)(2)(ii)	50.73(a)(2)(x)				
		20.405(a)(1)(ii)	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 or in NRC Form 366A				
		20.2203(a)(2)(iv)	50.36(c)(2)		50.73(a)(2)(vii)					

LICENSEE CONTACT FOR THIS LER (12)

NAME G. Chris Pickering / Licensing Engineer	TELEPHONE NUMBER (Include Area Code) (504) 739-6256
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

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

SUPPLEMENTAL REPORT EXPECTED (14)				EXPECTED SUBMISSION DATE (15)		
YES (If yes, complete EXPECTED SUBMISSION DATE)	X	NO		MONTH	DAY	YEAR

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

On November 17, 2000 at 0519, the plant entered mode 1 while coming out of a refueling outage. OP-903-001, Technical Specification (TS) Surveillance Logs, Attachment 11.1 was completed on November 17, 2000 at 0410 for a planned power ascension to mode 1. Under TS 4.0.4, an entry into an operational mode or other specified condition shall not be made unless the Surveillance Requirement(s) associated with the Limiting Condition for Operation have been performed within the stated surveillance interval or as otherwise specified. TS Surveillance 4.2.5 is applicable in mode 1 and states that "the actual Reactor Coolant System total flow rate shall be determined to be greater than or equal to the above limit [148.0 x10⁶ lbm/h] at least once per 12 hours." This surveillance was not performed prior to entry into mode 1; therefore, the plant did not operate in compliance with TS 4.0.4. The cause of this event was determined to be personnel work practice in that an intended verification was not performed. A contributing cause to this was the physical layout and format of the instructional steps. Operations personnel will be briefed on this event, and the procedures involved in this event will be revised. This event did not compromise the health and safety of the general public. This event is not considered a Safety System Functional Failure (SSFF).

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

REPORTABLE OCCURRENCE

On November 17, 2000 at 0519, the plant entered mode 1 while coming out of a refueling outage. Under TS 4.0.4, an entry into an operational mode or other specified condition shall not be made unless the Surveillance requirement(s) associated with the Limiting Condition for Operation have been performed within the stated surveillance interval or as otherwise specified. TS Surveillance 4.2.5 is applicable in mode 1 and states that "the actual Reactor Coolant System (RCS) [AB] total flow rate shall be determined to be greater than or equal to the above limit [148.0 x10⁶ lbm/h] at least once per 12 hours." This surveillance was not performed in accordance with OP-903-001, Technical Specification (TS) Surveillance Logs, prior to entry into mode 1; therefore, the plant did not operate in compliance with TS 4.0.4. This event is being reported pursuant to 10CFR50.73(a)(2)(i)(B) as an operation of the plant prohibited by plant's TS.

INITIAL CONDITIONS

On November 17, 2000 at approximately 0230, low power physics testing was completed and restoration efforts began to complete Refuel 10. The plant was in mode 2 and plant power was less than 5%. When the plant power was raised to greater than 5% at 0510, the plant entered mode 1.

EVENT DESCRIPTION

On November 16, 2000 at 1800, the night crew took the shift as Refuel 10 neared completion. There were three reactor operators in the Control Room, two that were assigned to the shift and a third from the Work Management Center (WMC). The reactor operator from the WMC was performing the duties of the Primary Nuclear Plant Operator (PNPO) and was heavily involved in the low power physics testing still in progress. The testing was completed at approximately 0230 on November 17, 2000 and restoration efforts began. The Administrative Nuclear Plant Operator (ANPO) was tasked with looking ahead at the upcoming evolutions of starting a Main Feed Pump and preparing the Main Turbine. Additionally, the ANPO took the required 0400 TS logs per OP-903-001, TS Surveillance Logs, and completed these logs at 0410 on November 17, 2000. The plant was in mode 2 at the time, but the logs were taken for the planned power

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ascension to mode 1. The Secondary Nuclear Plant Operator (SNPO) and Control Room Supervisor (CRS) reviewed the logs. The plant entered mode 1 on November 17, 2000 at 0519. The day crew took the shift on November 17, 2000 at 0600. The day shift ANPO was reviewing various paperwork following turnover and discovered the missed RCS flow surveillance required by TS 4.2.5. At 0630 on November 17, 2000, the RCS flowrate surveillance was performed in accordance with plant procedures.

CAUSAL FACTORS

The Root Cause of this event was determined to be personnel work practice in that an intended verification was not performed. Both the operator performing the TS Surveillance with OP-903-001 and the operator that verified the readings erroneously assumed the RCS flow reading for TS 4.2.5 was part of the reading for TS 4.3.1.1, and not required until power was greater than 70%. The ANPO overlooked the line for the RCS flow reading. This log reading is listed on a page just above other readings that are only required in mode 1 at power levels greater than 70%. Additionally, the RCS flow reading required for TS 4.2.5 is used as part of the calculations in the readings for TS 4.3.1.1 at power levels greater than 70%. To complete step 9.4.57 of OP-010-003 Attachment 9.4, the CRS asked the SNPO (also a senior reactor operator) if the TS logs were ready for mode 1. He reported that they were ready, and the CRS initialed step 9.4.57. Distracted by the reading only required greater than 70% power, the SNPO also overlooked the reading as had the ANPO.

A contributing cause to this was the physical layout and format of the instructional steps. The attachment in OP-010-003 for plant startup directed the operators to verify applicable logs were complete prior to exceeding 5% power. The specific logs were not listed. In the TS Surveillance procedure OP-903-001, the reading for TS 4.2.5 was closely linked to a larger data area that was not required until power was greater than 70%.

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CORRECTIVE ACTIONS

For immediate corrective actions, the required RCS flow reading was taken and documented on the appropriate OP-903-001 attachment. Actual RCS flowrate was in accordance with TS requirements. A debrief was held with the individual operators. For long term corrective action, the procedures will be revised to specify which log readings are required as power level is raised. The Root Cause Determination will also be distributed to Operation's licensed operators and Shift Technical Advisors to make department personnel aware of the event.

SAFETY SIGNIFICANCE

This event involves failure to take a required TS Surveillance for RCS total flow prior to entering mode 1. In addition to being required prior to mode change, the reading is also required to be taken every 12 hours.

The action for TS 3.2.5 states that if actual RCS total flow is determined to be less than the limit of 148.0×10^6 lbm/h, then reduce thermal power to less than 5% within 4 hours. The plant entered mode 1 at 0519 on November 17, 2000. The log reading was subsequently taken at 0630 with RCS flow greater than the limit; therefore, the plant operated in mode 1 for 1 hour 11 minutes without this reading taken.

The bases for TS 3.2.5 states that this specification is provided to ensure actual RCS flow is maintained at or above the minimum value used in the Loss of Coolant Accident (LOCA) safety analysis, and that Departure from Nucleate Boiling Ratio (DNBR) is maintained within the safety limit for Anticipated Operational Occurrences. All four Reactor Coolant Pumps (RCP) were running before and after the log reading, and had one or more pumps tripped resulting in a low flow condition, a reactor trip signal would have been generated.

Based on the time the plant operated in mode 1 without the reading, combined with the automatic trip

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that would have occurred had one of the four RCPs tripped, there are no safety concerns related to this event. This event did not compromise the health and safety of the general public.

This event is not considered a Safety System Functional Failure (SSFF).

SIMILAR EVENTS

CR-WF3-2000-1515 discussed a condition where the plant changed from mode 4 to mode 3 without meeting the required Limiting Conditions for Operation prior to changing modes. This event was reported to the NRC under LER 00-012-00. The cause of this event was that the mode change checklist did not provide an organized method of verifying the configuration of control panels required for mode changes.

ADDITIONAL INFORMATION

Energy Industry Identification System (EIS) codes are identified in the text within brackets [].