

EXPIRES 04/30/98

LICENSEE EVENT REPORT (LER)

(See reverse for required number of
digits/characters for each block)

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 INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT

FACILITY NAME (1)

WATTS BAR NUCLEAR PLANT - UNIT 1

DOCKET NUMBER (2)

05000-390

PAGE (3)

1 OF 5

TITLE (4)

INADVERTENT MAIN FEEDWATER ISOLATION RESULTING IN FEEDWATER SHORT CYCLING

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
12	26	95	95	004	00				FACILITY NAME	DOCKET NUMBER
OPERATING MODE (9)		5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
POWER LEVEL (10)		000	20.2201(b)		20.2203(a)(2)(v)		50.73(a)(2)(i)		50.73(a)(2)(viii)	
			20.2203(a)(1)		20.2203(a)(3)(i)		50.73(a)(2)(ii)		50.73(a)(2)(x)	
			20.2203(a)(2)(i)		20.2203(a)(3)(ii)		50.73(a)(2)(iii)		73.71	
			20.2203(a)(2)(ii)		20.2203(a)(4)		X 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

W. Lewellyn

TELEPHONE NUMBER (Include Area Code)

(423) 365-1812

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
N/A	N/A	N/A	N/A	N/A					

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE).	X	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
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ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On December 26, 1995, while performing surveillance testing on reactor trip breaker A (JG/BRK) and the Solid State Protection System (SSPS), train A, a feedwater isolation signal was generated at 0500 hours. The details of this event are as follows:

Instrument maintenance technicians were performing a response time test to Surveillance Instruction (SI) 1-SI-99-201-A as a post maintenance test for a replaced reactor trip breaker A. Due to the order in which the steps were written, the performance of the test caused numerous unanticipated alarms while removing the train A of SSPS from service. The Assistant Shift Operations Supervisor (ASOS) informed the technicians to return SSPS to normal until the reason for the alarms could be determined. The technicians misunderstood that to mean that the ASOS wanted them to take the input error inhibit switch back to Normal. Positioning of the switch from Normal to Inhibit, just prior to the alarms coming in was the cause of the alarms. The technicians took the switch back to Normal but without requesting Operations to place and hold the feedwater isolation reset switches in reset. This resulted in MFW isolation. After main feedwater isolation occurred, the main feedwater isolation was reset, and main feedwater long cycle operation was then re-established.

Feedwater System (SJ)
Solid State Control System (JG)

9601300174 960124
PDR ADOCK 05000390
S PDR

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

I. PLANT CONDITIONS

WBN Unit 1 was in Mode 5, Cold Shutdown, and the Reactor Coolant System was at 175°F and 340 psi. Both reactor trip breakers were open.

II. DESCRIPTION OF EVENT**A. Event**

Main Feedwater isolation occurred while in the process of performing maintenance on the Solid State Protection System (SSPS) during the early morning of December 26, 1995. Instrument Maintenance technicians were performing a response time surveillance test to Surveillance Instruction 1-SI-99-201-A as a post maintenance test for a replaced reactor trip breaker A. Due to the order in which the steps were written, the performance of the test caused numerous unanticipated alarms while removing the train A of SSPS from service. The Assistant Shift Operations Supervisor (ASOS) informed the technicians to return SSPS to normal until the reason for the alarms could be determined. The technicians understood that to mean that the ASOS wanted them to take the input error inhibit switch back to Normal. Positioning of the switch from Normal to Inhibit, just prior to the alarms coming in was the cause of the alarms. The technicians took the switch back to Normal without requesting Operations to place and hold the feedwater isolation reset switches in reset. This resulted in MFW isolation at 0500 hours. After main feedwater isolation occurred, the main feedwater isolation was reset, and main feedwater long cycle operation was then re-established.

B. INOPERABLE STRUCTURES, COMPONENTS, OR SYSTEMS THAT CONTRIBUTED TO THE EVENT

All equipment affected by the main feedwater isolation signal (FWIS) functioned as expected. The FWIS was reset and the plant was returned to the desired lineup (feedwater long cycle).

C. Dates and Approximate Times of Major Occurrence

0500 hours (EST) on December 26, 1995

D. Other Systems or Secondary Functions Affected

No other systems or secondary functions were affected by this event.

E. Method of Discovery

Annunciation and indication in the control room

F. Operator Actions

The FWIS was reset; 1-FCV-3-195, (1-PCV-3-40 Bypass Valve) was manually closed; and main feedwater long cycle operation was then re-established.

G. Automatic and Manual Safety System Responses

A feedwater isolation signal causing the feedwater isolation valves to close and the main feedwater system to switch to short cycle.

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III. CAUSE OF EVENT**A. Immediate Cause**

Instrument Maintenance technicians were performing Surveillance Instruction (SI) 1-SI-99-201-A, which, due to the order in which the steps were written, caused numerous unanticipated alarms while removing the A-train of SSPS from service. The Assistant Shift Operations Supervisor (ASOS) informed the technicians to return SSPS to normal until the reason for the alarms could be determined. The technicians understood that to mean that the ASOS wanted them to take the input error inhibit switch back to Normal. Positioning of the switch, just prior to the alarms coming in, from Normal to Inhibit was the cause of the alarms. The technicians took the switch back to Normal but without requesting Operations to place and hold the feedwater isolation reset switches in reset while doing so resulted in a MFW isolation.

B. Root Cause**1. Written Communication**

The order in which the procedural steps were written resulted in unanticipated alarms.

2. Work Practice Error

The technicians backed up one step in the SI without fully considering the consequences.

3. Verbal Communications

There was a verbal communication failure between the Assistant Shift Operations Supervisor (ASOS) and technicians.

IV. ANALYSIS OF EVENT - ASSESSMENT OF SAFETY CONSEQUENCES

There were no safety implications to the public related to the events. The main feedwater system is not required in mode 5.

V. CORRECTIVE ACTIONS**1. Immediate Corrective Actions**

The FWIS was reset; 1-FCV-3-195, (1-PCV-3-40 Bypass Valve) was manually closed; and main feedwater long cycle operation was then re-established.

Surveillance Instruction 1-SI-99-201-A was revised to correct the sequence of the steps which removes SSPS from service. The instruction was then re-performed successfully.

SSPS procedures used during power operations were reviewed for proper step sequence. There were no findings.

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V. CORRECTIVE ACTIONS (continued)**B. Corrective Actions to Prevent Recurrence**

Remaining SSPS procedures that remove and return SSPS to service were reviewed with no additional findings.

Site Standard Practice (SSP)-2.55, "Procedure Use and Adherence," was revised to include management expectations when performance of a procedure must be terminated before the end of the procedure.

Briefings covering event causes and corrective actions, need for formal communications with performers outside of Operations, and SSPS functions to recognize abnormalities, were conducted by Operations.

Briefings covering event causes and corrective actions, need for formal communications with performers outside of the Maintenance Instrument Group (MIG), and SSPS functions to recognize abnormalities, were conducted by MIG.

VI. ADDITIONAL INFORMATION**A. Failed Components****1. Safety Train Inoperability**

There were no failures that rendered a train or a safety system inoperable.

2. Component/System Failure Information**a. Method of Discovery of Each Component or System Failure:**

There were no failures that rendered a train or a safety system inoperable.

b. Failure Mode, Mechanism, and Effect of Each Failed Component:

There were no component failures involved.

c. Root Cause of Failure:

There were no component failures involved.

d. For Failed Components with Multiple Functions, List of Systems or Secondary Functions Affected:

There were no component failures involved.

e. Manufacturer and Model Number of Each Failed Component:

There were no component failures involved.

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VI. ADDITIONAL INFORMATION (continued)

B. Previous Similar Events

Licensing Event Report 390/95-003 - A Train A main feedwater isolation was inadvertently initiated while site personnel were placing the Train A Solid State Protection System back into service following the repair of the K603A relay.

VII. Commitments

There are no commitments; all actions are complete.