



Tennessee Valley Authority, Post Office Box 2000, Spring City, Tennessee 37381

May 4, 2016

10 CFR 50.73

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

Watts Bar Nuclear Plant, Unit 1
Facility Operating License No. NPF-90
NRC Docket No. 50-390

Subject: **Licensee Event Report 390/2016-002-00, Technical Specification Action
Not Met for Inoperable Containment Isolation Valve**

This submittal provides Licensee Event Report (LER) 390/2016-002-00. This LER provides details concerning a failure to isolate an inoperable containment penetration in the time required by Technical Specification 3.6.3. This report is being submitted in accordance with 10 CFR 50.73(a)(2)(i)(B).

Please direct any questions concerning this matter to Gordon Arent, WBN Licensing Director, at (423) 365-2004.

Respectfully,

A handwritten signature in blue ink, appearing to read "Paul Simmons", is written over a horizontal line.

Paul Simmons
Site Vice President
Watts Bar Nuclear Plant

Enclosure
cc: See Page 2

U.S. Nuclear Regulatory Commission
Page 2
May 4, 2016

cc (Enclosure):

NRC Regional Administrator - Region II
NRC Senior Resident Inspector - Watts Bar Nuclear Plant



LICENSEE EVENT REPORT (LER)

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 and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to Infocollections.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.

1. FACILITY NAME

Watts Bar Nuclear Plant, Unit 1

2. DOCKET NUMBER

05000390

3. PAGE

1 OF 5

4. TITLE

Technical Specification Action Not Met for Inoperable Containment Isolation Valve

5. EVENT DATE

MONTH	DAY	YEAR
03	05	2016

6. LER NUMBER

YEAR	SEQUENTIAL NUMBER	REV NO.
2016	- 002	- 00

7. REPORT DATE

MONTH	DAY	YEAR
05	04	2016

8. OTHER FACILITIES INVOLVED

FACILITY NAME	DOCKET NUMBER
N/A	N/A
N/A	N/A

9. OPERATING MODE

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

1

<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)
<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)
<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)
<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)

10. POWER LEVEL

100

<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)
<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)
<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> 73.77(a)(1)
<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)(D)	<input type="checkbox"/> 73.77(a)(2)(i)
<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)(vii)	<input type="checkbox"/> 73.77(a)(2)(ii)
	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> OTHER	Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

LICENSEE CONTACT

Dean Baker, Licensing Engineer

TELEPHONE NUMBER (Include Area Code)

423-452-4589

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 5, 2016, at 1512 Eastern Standard Time (EST), Watts Bar Nuclear Plant (WBN) Unit 1 entered Technical Specification (TS) 3.6.3, Containment Isolation Valves, Condition A for a containment isolation valve being inoperable. During a containment walkdown, leakage was found on valve 1-FCV-61-122, Glycol Cooled Floor Return Header Isolation and the valve was declared inoperable. TS 3.6.3 Condition A requires that a penetration flow path with one containment isolation valve inoperable to be isolated by use of at least one closed and de-activated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve within 4 hours. The penetration associated with this containment isolation valve was not isolated until 2113 EST on March 5, 2016. The cause of this event was operations staff misunderstanding the applicability of the Note associated with TS 3.6.3, which allows administrative controls under certain conditions.

Because the action specified by TS 3.6.3 was not completed within four hours, this condition is reportable as an operation or condition prohibited by TS per 10 CFR 50.73(a)(2)(i)(B).

NRC FORM 366A
(11-2015)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104

EXPIRES: 10/31/2018



LICENSEE EVENT REPORT (LER) CONTINUATION SHEET

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 and Information Collections Branch (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.

1. FACILITY NAME	2. DOCKET NUMBER	3. LER NUMBER		
Watts Bar Nuclear Plant, Unit 1	05000390	YEAR	SEQUENTIAL NUMBER	REV NO.
		2016	- 002	- 00

NARRATIVE

I. PLANT OPERATING CONDITIONS BEFORE THE EVENT

Watts Bar Nuclear Plant (WBN) Unit 1 was in Mode 1 at 100 percent rated thermal power (RTP).

II. DESCRIPTION OF EVENT

A. Event

On March 5, 2016, at 1512 Eastern Standard Time (EST), Watts Bar Nuclear Plant (WBN) Unit 1 entered Technical Specification (TS) 3.6.3, Containment Isolation Valves, Condition A for a containment isolation valve associated with the ice condenser glycol system {EIS:BC} being inoperable. During a containment walkdown, leakage was found on valve 1-FCV-61-122, Glycol Cooled Floor Return Header Isolation {EIS:FCV} and the valve was declared inoperable. TS 3.6.3 Condition A requires that a penetration flow path with one containment isolation valve inoperable to be isolated by use of at least one closed and de-activated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve within 4 hours. The penetration associated with this containment isolation valve was not isolated until 2113 EST on March 5, 2016.

Because the action specified by TS 3.6.3 was not completed within four hours, this condition is reportable as an operation or condition prohibited by TS per 10 CFR 50.73(a)(2)(i)(B).

B. Inoperable Structures, Components, or Systems that Contributed to the Event

No inoperable structures, components, or systems contributed to this event.

C. Dates and Approximate Times of Occurrences

Date	Time	Event
3/05/16	1512 EST	1-FCV-61-122, Glycol Cooled Floor Return Header Isolation declared inoperable.
3/05/16	1935 EST	Licensing requested to verify invoking the TS LCO 3.6.3 note allowing the CIV path to remain open with administrative controls in place and determine acceptable time frame for "intermittent."
3/05/16	2113 EST	1-FCV-61-110 was closed and deactivated, isolating the penetration flowpath.
3/05/16	2142 EST	Licensing formal interpretation of TS 3.6.3 compliance entered into operating logs.

D. Manufacturer and Model Number of Components that Failed

While a leak on valve 1-FCV-61-122 caused the plant to enter TS 3.6.3 Condition A, it was not the cause of personnel failing to comply with the requirements of the Technical Specifications.

E. Other Systems or Secondary Functions Affected

There were no systems or secondary functions affected by this event.

NRC FORM 366A
(11-2015)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104

EXPIRES: 10/31/2018



LICENSEE EVENT REPORT (LER) CONTINUATION SHEET

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 and Information Collections Branch (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.

1. FACILITY NAME	2. DOCKET NUMBER	3. LER NUMBER		
Watts Bar Nuclear Plant, Unit 1	05000390	YEAR 2016	SEQUENTIAL NUMBER - 002	REV NO. - 00

NARRATIVE

F. Method of discovery of each Component or System Failure or Procedural Error

While a component issue was involved in this report, it did not cause the condition prohibited by Technical Specifications

G. Failure Mode and Effect of Each Failed Component

While a leak on valve 1-FCV-61-122 caused the plant to enter TS 3.6.3 Condition A, it was not the cause of personnel failing to comply with the requirements of the Technical Specifications.

H. Operator Actions

Upon receiving clarification of the expectations associated with the TS 3.6.3 Note, operations properly isolated the impacted penetration.

I. Automatically and Manually Initiated Safety System Responses

There were no automatic or manual system responses associated with this event.

III. CAUSE OF THE EVENT

A. The cause of each component or system failure or personnel error, if known.

This event was the result of an incorrect understanding of how to comply with the Note associated with TS 3.6.3.

B. The cause(s) and circumstances for each human performance related root cause.

The cause of this event was an incorrect understanding of how to comply with the Note associated with TS 3.6.3.

IV. ANALYSIS OF THE EVENT

TS LCO 3.6.3 Condition A, Containment Isolation valves, required the penetration associated with valve 1-FCV-61-122 to be isolated within 4 hours. Note 1 associated with TS 3.6.3 allows for a penetration flow path to be unisolated intermittently under administrative controls, such as to perform testing after maintenance. Operations stationed a dedicated operator in accordance with TS LCO 3.6.3 Note 1, but did not isolate the valve. This was based on an understanding that by invoking Note 1 with a dedicated operator stationed to isolate the flowpath that this met the intent of shutting the valve for the 4 hour time requirement for the action statement of the LCO. Upon being informed by site licensing that this reading of the TS Note was incorrect, the valve was isolated.

NRC FORM 366A
(11-2015)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104

EXPIRES: 10/31/2018



LICENSEE EVENT REPORT (LER) CONTINUATION SHEET

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 and Information Collections Branch (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.

1. FACILITY NAME	2. DOCKET NUMBER	3. LER NUMBER		
Watts Bar Nuclear Plant, Unit 1	05000390	YEAR 2016	SEQUENTIAL NUMBER - 002	REV NO. - 00

NARRATIVE

V. ASSESSMENT OF SAFETY CONSEQUENCES

- A. Availability of systems or components that could have performed the same function as the components and systems that failed during the event

There were no safety system failures associated during this event. In the event a Loss of Coolant Accident (LOCA) had occurred during the inoperability of valve 1-FCV-61-122, the remaining containment isolation valve (1-FCV-61-110) for this penetration was capable of closing and isolating this penetration.

- B. For events that occurred when the reactor was shut down, availability of systems or components needed to shutdown the reactor and maintain safe shutdown conditions, remove residual heat, control the release of radioactive material, or mitigate the consequences of an accident

Not applicable.

- C. For failure that rendered a train of a safety system inoperable, an estimate of the elapsed time from the discovery of the failure until the train was returned to service

Not applicable.

VI. CORRECTIVE ACTIONS

This event was entered into the Tennessee Valley Authority Corrective Action Program and is being tracked under condition report 1146157.

- A. Immediate Corrective Actions

Upon identifying the correct requirements to implement TS 3.6.3 Condition A, the impacted penetration was properly isolated.

- B. Corrective Actions to Prevent Recurrence

A shift order defining the correct response when entering TS 3.6.3 Condition A was provided to the operating staff. This issue will be a topic of future operations training.

VII. ADDITIONAL INFORMATION

- A. Previous similar events at the same plant

This LER involves an incorrect understanding by operations personnel in how to apply Technical Specification requirements. No similar event was identified with the same causal basis.

- B. Additional Information

None.

NRC FORM 366A
(11-2015)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104

EXPIRES: 10/31/2018



LICENSEE EVENT REPORT (LER) CONTINUATION SHEET

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 and Information Collections Branch (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.

1. FACILITY NAME	2. DOCKET NUMBER	3. LER NUMBER		
Watts Bar Nuclear Plant, Unit 1	05000390	YEAR	SEQUENTIAL NUMBER	REV NO.
		2016	- 002	- 00

NARRATIVE

C. Safety System Functional Failure Consideration

This condition did not result in a safety system functional failure.

D. Scrams with Complications Consideration

There was no scram associated with this report.

VIII. COMMITMENTS

None.