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Nuclear LLC

AUG 0 2 2004

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

Gentlemen:

LER 272/04-003-00
SALEM - UNIT 1
FACILITY OPERATING LICENSE NO. DPR-70
DOCKET NO. 50-272

This Licensee Event Report, "Completion of Plant Shutdown to Comply With Technical Specifications - 3.6.1.1 "Containment Integrity," is being submitted pursuant to the requirements of the Code of Federal Regulations 10CFR50.73(a)(2)(i)(A).

The attached LER contains no commitments.

Sincerely,

Carl Fricker
Salem Plant Manager

Attachment

/EHV

C Distribution
LER File 3.7

IE22

NRC FORM 366 (7-2001) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104 EXPIRES 7-31-2004

Estimated burden per response to comply with this mandatory information collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1@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 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)

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

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
Salem Unit 1 Generating Station	05000272	1 OF 4

4. TITLE

Completion of Plant Shutdown to Comply With Technical Specifications - 3.6.1.1 "Containment Integrity."

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
06	02	2004	2004	- 003 -	00	08	02	2004	FACILITY NAME	DOCKET NUMBER

9. OPERATING MODE	1
10. POWER LEVEL	18%

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

20.2201(b)	20.2203(a)(3)(ii)	50.73(a)(2)(ii)(B)	50.73(a)(2)(ix)(A)
20.2201(d)	20.2203(a)(4)	50.73(a)(2)(iii)	50.73(a)(2)(x)
20.2203(a)(1)	50.36(c)(1)(i)(A)	50.73(a)(2)(iv)(A)	73.71(a)(4)
20.2203(a)(2)(i)	50.36(c)(1)(ii)(A)	50.73(a)(2)(v)(A)	73.71(a)(5)
20.2203(a)(2)(ii)	50.36(c)(2)	50.73(a)(2)(v)(B)	OTHER Specify in Abstract below or in NRC Form 366A
20.2203(a)(2)(iii)	50.46(a)(3)(ii)	50.73(a)(2)(v)(C)	
20.2203(a)(2)(iv)	X 50.73(a)(2)(i)(A)	50.73(a)(2)(v)(D)	
20.2203(a)(2)(v)	50.73(a)(2)(i)(B)	50.73(a)(2)(vii)	
20.2203(a)(2)(vi)	50.73(a)(2)(i)(C)	50.73(a)(2)(viii)(A)	
20.2203(a)(3)(i)	50.73(a)(2)(ii)(A)	50.73(a)(2)(viii)(B)	

12. LICENSEE CONTACT FOR THIS LER

NAME	TELEPHONE NUMBER (Include Area Code)
E. H. Villar, Licensing Engineer	856-339-5456

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

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX
-	-	-	-	No					

14. SUPPLEMENTAL REPORT EXPECTED		15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR
X	YES (If yes, complete EXPECTED SUBMISSION DATE) / NO		09	03	2004

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

On June 2, 2004 at approximately 1230 hours, the 1SW26 valve (service water to the turbine building isolation valve) was declared inoperable as a result of investigation into an abnormal condition with Service Water in the turbine building. A plant shutdown was initiated in accordance with Technical Specification 3.6.1.1 "Primary CONTAINMENT INTEGRITY".

On June 2, 2004, non-licensed operations personnel identified an abnormal condition in the control of the turbine building service water pressure. During a routine tour of the turbine building while returning Unit 1 from its sixteenth refueling outage, the operator noticed that the temperature in the number 11 main turbine lube oil heat exchanger was approximately 110 degrees F. Further investigation revealed that the service water to the turbine building regulating valve (1ST1) was full open with only 72 psig in the service water turbine header downstream of 1ST1. These conditions, low pressure and high temperatures, were not normal for the plant conditions at the time. Further troubleshooting indicated that the service water to the turbine building isolation valve (1SW26) had been improperly installed and its motor operator improperly set up.

The root cause of this event and its contributors has not yet been fully identified. The valve actuator was removed, the valve disc was rotated 180 degrees, and re-tested satisfactorily.

This is being reported under the requirement of 10CFR50.73(a)(2)(i)(A), as a completion of a plant shutdown to comply with Technical Specifications.

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

PLANT AND SYSTEM IDENTIFICATION

Westinghouse – Pressurized Water Reactor (PWR/4)
Service Water (SW) {BI} *
* Energy Industry Identification System {EIIS} codes and component function identifier codes appear as {SS/CCC}

IDENTIFICATION OF OCCURRENCE

Event Date: June 2, 2004

Discovery Date: June 2, 2004

CONDITIONS PRIOR TO OCCURRENCE

Salem Unit 1 was in Mode 1 at approximately 18% Rated Thermal Power

There was no equipment out of service at the time of the event that contributed to the event.

DESCRIPTION OF OCCURRENCE

On June 2, 2004, non-licensed operations' personnel identified an abnormal condition in the control of the turbine building service water pressure. During a routine tour of the turbine building while returning Unit 1 from its sixteenth refueling outage, the operator noticed that the temperature in the number 11 main turbine lube oil {TD} (MTLO) heat exchanger was approximately 110 degrees F. Further investigation revealed that the service water to the turbine building {NM} regulating valve (1ST1) was full open with only 72 psig in the service water turbine header downstream of 1ST1. These conditions, low pressure and high temperatures, were not normal for the plant conditions at the time.

A detailed troubleshooting plan was developed which included the instrumentation of the service water bays and turbine building header. The data showed the service water pressure to be approximately 130 psig at the Unit 1 service water bays with 83-84 psig upstream of 1ST1. In contrast, the Unit 2 service water pressure at the bays was 112 psig with 109 psig upstream of 2ST1. Additionally, the troubleshooting showed that when the disc was stroked in the clockwise direction, open to close indication on the motor operator, that flow increased through the line. Further analyses of this data indicated that the valve 1SW26 was improperly installed and the motor operator improperly set up.

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

DESCRIPTION OF OCCURRENCE (contd.)

At Salem Station the service water to the turbine building header isolation valve (1SW26) is required to be operable to maintain containment integrity. During design basis accidents, the 1SW26 valve is required to close fully to isolate the non-safety related loads in the turbine building. Isolation of these loads provide enough flow/pressure to the containment fan coil units to maintain saturation conditions in the discharge piping and thus preventing severe water hammer events. Therefore, the Containment Integrity Technical Specification applies whenever this valve becomes inoperable. The Containment Integrity Technical Specification states in part: "...Without primary CONTAINMENT INTEGRITY, restore CONTAINMENT INTEGRITY within one hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours." The Mode applicability is 1 through 4.

At approximately 1230 pm, on June 2, 2004, licensed operators declared the 1SW26 valve inoperable and a plant shutdown was initiated to comply with the requirements of Technical Specification 3.6.1.1, as stated above.

Mode 3 was entered on June 2, 2004 at approximately 1624.

CAUSE OF OCCURRENCE

Although troubleshooting identified that valve 1SW26 was improperly installed and the motor operator improperly set up, the root cause and its contributors have not yet been fully identified

Investigation of several scenarios is currently in progress to determine the root cause(s), contributing causes and corrective actions to prevent reoccurrence. Once completed, a supplement to this LER will be issued. This LER supplement is expected to be submitted by September 3, 2004.

PREVIOUS OCCURRENCES

A review of LERs at Salem and Hope Creek Generating Stations for the years 2001 through 2004 did not identify any previous similar events related to improper installation of a valve disc or actuator. Once the root cause is completed another review will be performed against the identified root cause.

SAFETY CONSEQUENCES AND IMPLICATIONS

There were no safety consequences associated with this event.

Although the 1SW26 service water to the turbine building isolation valve was not able to close fully due to improper installation during the refueling outage, the redundant isolation valves from the two nuclear safety related headers were operable and capable to isolate the non-safety related turbine building.

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

SAFETY CONSEQUENCES AND IMPLICATIONS (cont'd)

Therefore, isolation of the non-safety related loads in the turbine building to provide enough flow/pressure to the containment fan coil units to maintain conditions below saturation in the discharge piping would have been met.

This event does not constitute a Safety System Functional Failure (SSFF) as defined in Nuclear Energy Institute (NEI) 99-02, Regulatory Assessment Performance Indicator Guideline.

CORRECTIVE ACTIONS

The valve and valve actuator were properly installed and tested satisfactorily.

Additional corrective action will be taken at the completion of the root cause evaluation and this LER will be supplemented appropriately.

COMMITMENTS

The corrective actions cited in this LER are voluntary enhancements and do not constitute commitments.