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August 2, 2011

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

Subject: Oconee Nuclear Station
Docket No. 50-270
Licensee Event Report 270/2010-01, Revision 1
Problem Investigation Process No.: O-10-5561

Gentlemen:

Pursuant to 10 CFR 50.73 Sections (a)(1) and (d), please find attached Licensee Event Report 270/2010-01, Revision 1, involving a condition determined to be prohibited by the Oconee Technical Specifications (TSs). The prohibited condition resulted in an inoperable safety-related system for a period of time which exceeded the required action time allowed by the TSs. The report has been revised to add the cause, corrective actions, and additional information, which were not available in Revision 0 of this report.

This report is being submitted in accordance with 10 CFR 50.73 (a)(2)(i)(B). There are no regulatory commitments contained in this report. This event is considered to be of no significance with respect to the health and safety of the public.

Please direct any questions you may have to Stephen C. Newman, Oconee Regulatory Compliance Group, at 864-873-4388.

Sincerely,

TP Gillespie

T. Preston Gillespie, Jr.
Vice President
Oconee Nuclear Station

Attachment

IE22
NRR

cc: Mr. Victor McCree
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Mr. John Stang
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Mr. Andrew Sabisch
NRC Senior Resident Inspector
Oconee Nuclear Station

INPO (Word File via E-mail)

NRC FORM 366 (9-2007) U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

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

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 10/31/2013
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 Records and FOIA/Privacy Service 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. PAGE
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4. TITLE

Operation Prohibited by TS Due to Removal of West Penetration Room Brick Wall Support Girts

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
									None	05000
07	2	2010	2010	01	1	8	2	2011	FACILITY NAME: None	DOCKET NUMBER: 05000

9. OPERATING MODE

1

10. POWER LEVEL

100%

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

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

12. LICENSEE CONTACT FOR THIS LER

NAME	TELEPHONE NUMBER (Include Area Code)
Stephen C. Newman, Regulatory Compliance Group	(864) 873-4388

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

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

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

On July 14, 2010, Oconee Nuclear Station (ONS) discovered that workers had removed support girts from the Unit 2 West Penetration Room brick wall that were required to maintain seismic adequacy of the wall. Failure of this wall could damage Standby Shutdown Facility (SSF) cables. Damage to these cables could have caused the SSF Reactor Coolant Makeup and Auxiliary Service Water functions to be inoperable for a seismically-induced Turbine Building Flood Event.

Technical Specification (TS) Limiting Condition for Operation (LCO) 3.10.1 was not met in this condition. This condition existed for approximately fourteen days, which exceeded the seven-day required action time of the LCO. Consequently, ONS Unit 2 operated in a condition prohibited by TS for approximately seven days as a result of this condition.

Prompt corrective action was taken to re-install the required support girts. This work was completed on July 16, 2010. The cause of this event was determined to be that critical information was not transferred from the complex activity plan to the work order task document and subsequently, to the craft in the field. The completed corrective actions have addressed this process weakness. This event is of no significance with respect to public health and safety.

LICENSEE EVENT REPORT (LER)

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
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17. NARRATIVE *(If more space is required, use additional copies of NRC Form 366A)*

BACKGROUND

The Oconee Standby Shutdown Facility (SSF)[NB] is designed as a standby system for use under extreme emergency conditions. The system provides additional "defense in depth" protection for the health and safety of the public by serving as a backup to existing safety systems. The SSF functions to mitigate the consequences of various events such as fire, flood, sabotage, and station blackout. The seismically-induced Turbine Building Flood Event is one SSF-mitigated event within the Oconee current licensing basis (CLB). This event will result in the flooding and consequent inoperability of all Emergency Feedwater [BA] Pumps [P]. The SSF functions in this event to bring the plant to hot standby conditions for a period of up to 72 hours. The SSF Auxiliary Service Water (ASW)[BA] System provides secondary side heat transfer and the SSF Reactor Coolant Makeup System provides Reactor Coolant System (RCS)[AB] inventory control and seal cooling. Due to the potential failure of the Unit 2 West Penetration Room wall during a postulated seismic event and the potential damage the collapsed wall could cause to the nearby SSF cables [CBL], the SSF ASW System and SSF RC Makeup System were declared inoperable. The condition existed for a period of time exceeding the allowed SSF outage time permitted by Technical Specification 3.10.1. Therefore, Unit 2 operated for a period of time in a condition prohibited by Technical Specifications.

This event is reportable per 10CFR 50.73(a)(2)(i)(B).

Prior to this event Unit 2 was operating at 100% power with no safety systems or components out of service that would have contributed to this event.

EVENT DESCRIPTION

Between July 2, 2010 and July 6, 2010, Oconee workers were performing demolition of the Oconee Unit 2 West Penetration Room exterior wall siding. This activity involved removing support girts from the walls to support a planned modification to the wall. The critical activity plan for the siding demolition specified that certain support girts (between column 78a and the Reactor Building wall) must remain in place until interior wall protective measures were installed for protection of safety related systems, structures, and components (SSCs) adjacent to the West Penetration Room wall. On July 14, 2010, Oconee discovered that required support girts had been removed from the exterior of this wall prior to implementation of the necessary protective measures on the interior side of the wall. Without support girts installed, this panel of the West Penetration Room wall cannot be assured to withstand a seismic event.

The failure of the West Penetration Room wall was evaluated for potential to damage other safety related SSCs and this evaluation concluded that failure of this wall could have damaged SSF cables which were routed nearby. The cables in question are required for the SSF to perform its required safety function in mitigation of various events within the Oconee CLB. These include fire, flood, sabotage, and station blackout. However, the Turbine Building Flood is the only SSF-mitigated event for which the CLB requires postulating a concurrent seismic event.

The SSF was declared inoperable on July 14, 2010. At that time, the SSF had been inoperable for 12 days. This is based upon the removal of three (3) of the four (4) support girts on July 2, 2010; making the SSF inoperable on the 1st day that support girt removal was in progress. The fourth

(4th) and final support girt was removed on July 6, 2010. All support girts were replaced by July 16, 2010, and the SSF was restored to operable status. The total duration of inoperability was approximately 14 days. The allowed outage time for the SSF is seven (7) days.

The decay heat removal function performed by the SSF ASW System can also be performed by the High Pressure Injection System (HPI)[BG] using feed and bleed. This system also provides normal and emergency RCS inventory control and seal cooling. Availability of the HPI system is not affected by failure of the degraded wall.

CAUSAL FACTORS

A root cause evaluation team investigated the cause and identified corrective actions to prevent recurrence of this event. Written statements were obtained from key individuals and others with knowledge of the work performed. Related factors such as work documents, job planning, and pre-job briefings were evaluated to determine their potential to contribute to or prevent this event.

Various methods were used to drive out potential problems in human performance or organizational and programmatic/administrative process failures. These methods included causal factor charting, task analysis, and change and/or barrier analysis.

The cause analysis report identified the root cause as a failure to include critical information (limitations on girt removal between column 78a and the Unit 2 Reactor Building) in work order task details.

CORRECTIVE ACTIONS

Immediate:

1. The applicable condition for Technical Specification Limiting Condition for Operation (TS LCO) 3.10.1 was entered.
2. Demolition work on the Unit 2 West Penetration room wall was suspended.

Subsequent:

1. The Unit 2 West Penetration Room exterior wall support girts were re-installed and operability was restored.

2. "Do Not Remove" signs were placed on the re-installed support girts.

3. Duke Energy's Oconee Major Project's (OMP) work activity risk assessment process was revised to audit risk items, contingencies, and restrictions for applicable complex activity plans (CAPs) each day. This includes a daily visit to verify the field conditions in regard to complex plan status.

4. Duke Energy's Oconee Major Project's (OMP) work activity risk assessment process was revised to include detailed instructions that ensure critical information, e.g., pertinent risks,

restrictions, and contingencies, directing the craft is transferred from the complex activity plan (CAP) to the work order (WO).

SAFETY ANALYSIS

This event did not involve a Safety System Functional Failure.

The HPI system was available to perform the functions which would otherwise have been performed by the SSF ASW system and SSF RC Makeup System.

This event was analyzed using the current Oconee Seismic Probability Risk Assessment (PRA). The effect of losing the SSF following a seismic event was evaluated by solving the model with the SSF assumed unavailable. (Note: For a portion of time during the period of interest, the SSF was actually out-of-service for preventive maintenance.)

The Incremental Conditional Core Damage Probability (ICCDP) associated with this event was determined to be less than 1E-06; consequently, there was minimal safety significance to this event and the health and safety of the public were not adversely affected.

ADDITIONAL INFORMATION

A search of Oconee's Problem Investigation Program (PIP) data base over the last five (5) years, revealed a 2008 high level apparent cause PIP that dealt with past logistical weaknesses associated with the rollouts of complex activity plans (CAPs). The corrective actions contained in the PIP focused primarily on poor communication, lack of ownership, etc.. There were no corrective actions located which specifically addressed the omission of critical information from the work order. In addition, a 2010 PIP corrective action revised the Work Process Manual (WPM) 500 work order task description template to include additional information but failed to single out the inclusion of "critical" information; consequently, as a result, it is unclear whether or not these prior corrective actions could have prevented this condition.

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

There were no releases of radioactive materials, radiation exposures or personnel injuries associated with this event.

This event is not considered reportable under the Equipment Performance and Information Exchange (EPIX) program.