ENERGY NORTHWEST

P.O. Box 968 ■ Richland, Washington 99352-0968

August 14, 2003
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U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555-0001

Subject: **COLUMBIA GENERATING STATION, DOCKET NO. 50-397**
LICENSEE EVENT REPORT NO. 2003-005-00

Dear Sir or Madam:

Transmitted herewith is Licensee Event Report No. 2003-005-00 for the Columbia Generating Station. This report is submitted pursuant to 10 CFR 50.73(a)(2)(v)(B). The enclosed report discusses items of reportability and corrective actions taken.

If you have any questions or require additional information, please contact Ms. CL Perino at (509) 377-2075.

Respectfully,

RL Webring
Vice President, Nuclear Generation
Mail Drop PE04

Enclosure: Licensee Event Report 2003-005-00

cc: TP Gwynn - NRC RIV
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NRC FORM 366 (1-2001) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104 EXPIRES 6-30-2001

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LICENSEE EVENT REPORT (LER)

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

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Columbia Generating Station	05000397	1 OF 4

TITLE (4)

Shutdown Cooling Isolation Caused by Procedure Deficiency

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
6	16	2003	2003	005	0	8	14	2003	FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9)	4	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply) (11)			
POWER LEVEL (10)	00	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)	X 50.73(a)(2)(v)(B)	Other
		20.2203(a)(2)(iii)	50.46(a)(3)(ii)	50.73(a)(2)(v)(C)	Specify in Abstract below or in NRC Form 366A
		20.2203(a)(2)(iv)	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)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
Craig Sly	509-377-8616

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

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX		CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

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

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

On June 16, 2003, Columbia Generating Station was in Mode 4 (cold shutdown) with reactor coolant temperature at approximately 112 degrees Fahrenheit. At approximately 1330 PDT, an isolation of the Residual Heat Removal (RHR) Shutdown Cooling (SDC) common suction header occurred when the outboard containment isolation valve RHR-V-8 closed. The RHR SDC isolation occurred while performing a containment isolation logic functional surveillance test. Surveillance Procedure TSP-CONT/ISOL-B501, section 7.6. requires depressing the manual Nuclear Steam Supply Shutoff System (NSSSS) initiation logic B pushbutton. Depressing this pushbutton causes an isolation signal to 16 NSSSS isolation valves, including RHR-V-8.

The primary cause of this event was an inadequate surveillance procedure. A contributing cause was inadequate preparation by operators performing the test.

The surveillance procedure has been modified to specify the isolations that will occur when performing section 7.6. The pre-job briefing sheet for TSP-CONT/ISOL-B501, section 7.6 has been modified to list the NSSSS isolations that will occur when Section 7.6 is performed.

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

Event Description

On June 16, 2003, Columbia Generating Station (Columbia) was in Mode 4 (cold shutdown) with the reactor coolant temperature at approximately 112 degrees Fahrenheit. At approximately 1330 PDT, an isolation of Residual Heat Removal (RHR) Shutdown Cooling (SDC) common suction header occurred when the outboard primary containment isolation valve, RHR-V-8 closed. The RHR SDC isolation occurred while performing surveillance procedure TSP-CONT/ISOL-B501, "Containment Isolation LSFT," [Logic System Functional Test] section 7.6, Manual Initiation. Step 7.6.42 of this surveillance procedure required depressing the manual Nuclear Steam Supply Shutoff System (NSSSS) initiation logic B pushbutton (MS-RMS-S25B). Depressing this pushbutton causes an isolation signal to 16 NSSSS isolation valves, including RHR-V-8.

At the time of the event, RHR SDC subsystem A was operating in the shutdown cooling mode and RHR SDC subsystem B was available for SDC service, but not in operation. Reactor Recirculation Pump 1B (RRC-P-1B) was running to support reactor core circulation and was unaffected by the RHR SDC isolation. The condensate system was available as an alternate means of decay heat removal by injection into the RPV with heat rejection to the main condenser.

The SDC isolation was caused by closure of RHR-V-8, the outboard primary containment isolation valve in the common suction line for both RHR SDC subsystems. Closure of RHR-V-8 subsequently tripped RHR SDC pump 2A (RHR-P-2A). Operators entered abnormal condition procedure ABN-RHR-SDC-LOSS, "Loss of Shutdown Cooling," and the appropriate Technical Specification (TS) Required Action (TS 3.4.10.A). Technical Specification Required Action 3.4.10.A.1 requires verification that an alternate source of decay heat removal is available for each inoperable RHR SDC subsystem within one hour.

All isolation signals were reset and RHR SDC was restored approximately 12 minutes after RHR-V-8 closed. During the time that RHR SDC was out of service, reactor coolant temperature increased from approximately 112 to 113 degrees Fahrenheit.

Cause of Event

The primary cause of this event was an inadequate procedure. Surveillance procedure TSP-CONT/ISOL-B501, section 7.6, should have contained a description of the expected valve isolations that would occur when the manual pushbutton for NSSSS initiation logic B was depressed. Other sections of this procedure do contain descriptions of expected isolations, while section 7.6 does not.

A contributing cause was inadequate preparation by the operators performing the test. Even though the surveillance procedure was weak in describing the impact on the plant when performing section 7.6, a more thorough review to understand the impact of the test being performed may have prevented this event.

Safety Significance

This event posed no threat to the health and safety of the public or plant personnel. The RHR SDC system was restored to service in approximately 12 minutes with an increase in reactor coolant temperature of approximately one degree Fahrenheit. A reactor recirculation pump was in operation throughout the event (RRC-P-1B) to provide reactor coolant circulation. Alternate methods for removal of residual heat were available from condensate injection with heat removal via the main condenser and through abnormal condition procedure, ABN-RHR-SDC-LOSS, "Loss of Shutdown Cooling," which provides instructions to restore (manually) RHR shutdown cooling.

This event is reportable in accordance with 10 CFR 50.73 (a)(2)(v)(B).

Immediate Corrective Actions

Control Room Operators entered abnormal condition procedure ABN-RHR-SDC-LOSS and reviewed TSP-CONT/ISOL-B501 to determine what step was being performed at the time the SDC isolation occurred. In addition, the Shift Manager verified that the operator performing the surveillance test had depressed the correct pushbutton. The NSSSS isolation signal was reset, and RHR SDC subsystem A was placed in service.

The applicable drawings were reviewed to confirm that the actuations/isolations that occurred should have been expected.

Further Corrective Actions

Surveillance procedure TSP-CONT/ISOL-B501 has been modified to specify the isolations that will occur when performing section 7.6. All valves that isolate are listed prior to the steps requiring the manual depressing of an NSSSS initiation logic pushbutton.

The pre-job briefing sheet for surveillance procedure TSP-CONT/ISOL-B501, section 7.6, has been modified to reflect that an NSSSS isolation will occur when section 7.6 is performed.

Previous Similar Events

A review of the Problem Evaluation Request database from 1997 to present found the following similar events:

LER 2003-003 reported an RHR SDC isolation due to the closure of the inboard RHR SDC primary containment isolation valve RHR-V-9. This event occurred during a planned maintenance activity and was caused by maintenance personnel performing work on the wrong relay when replacing a relay wire lug.

An isolation of shutdown cooling occured on June 8, 2001 when the RHR suction outboard isolation valve closed during planned maintenance. However, this event was determined not to be reportable under 10 CFR 50.72 or 73 reporting requirements.

EIIS Information

Text Reference	System	Component
RHR SDC Isolation Valve, RHR-V-8	BO	ISV
RHR SDC Pump RHR-P-2A	BO	P
Reactor Recirculation Pump (RRC-P-1B)	AD	P
Nuclear Steam Supply Shutoff System	BD	