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November 1, 2012
GO2-12-157

10 CFR 50.73

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. 2012-005-00

Dear Sir or Madam:

Transmitted herewith is Licensee Event Report No. 2012-005-00 for Columbia Generating Station. This report is submitted pursuant to 10 CFR 50.73(a)(2)(i). The attached report discusses being in a condition prohibited by Technical Specifications due to the failure to enter the appropriate Technical Specifications and complete the required actions prior to the completion time when safety related room coolers were taken out of service.

There are no commitments being made to the NRC by this letter. If you have any questions or require additional information, please contact Mr. ZK Dunham at (509) 377-4735.

Respectfully,

WG Hettel
Vice President, Operations

Attachment: Licensee Event Report 2012-005-00

cc: NRC Region IV Administrator
NRC NRR Project Manager
NRC Senior Resident Inspector/988C
AJ Rapacz – BPA/1399
WA Horin – Winston & Strawn

IE22
MLL

NRC FORM 366 U.S. NUCLEAR REGULATORY COMMISSION (10-2010)		APPROVED BY OMB NO. 3150-0104 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 Section (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.																																					
LICENSEE EVENT REPORT (LER) (See reverse for required number of digits/characters for each block)																																							
1. FACILITY NAME Columbia Generating Station		2. DOCKET NUMBER 05000397	3. PAGE 1 OF 4																																				
4. TITLE Violation of Technical Specifications Due to the Failure to Enter the Appropriate Technical Specification																																							
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ABSTRACT <i>(Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)</i> <p>In July 2012, the Nuclear Regulatory Commission (NRC) questioned Columbia Generating Station's (Columbia) practice of applying the Service Water (SW) Technical Specification (TS) 3.7.1, as called out in procedures and work instructions, when taking safety related room coolers or fans out of service. This question was entered into Columbia's corrective action process and on October 3, 2012, it was determined that this practice had resulted in instances in which Columbia had been in a condition prohibited by TS. Specifically, Columbia did not enter the appropriate TS for an inoperable system, subsystem, train or component when the necessary attendant non-technical specification support equipment was not capable of performing its support function. Columbia entered the TS Limiting Condition for Operation (LCO) Action for one SW subsystem inoperable rather than entering the appropriate TS Action for the equipment supported by the room coolers. Columbia's procedures and work instructions were based on an inappropriate example provided in TS Bases 3.7.1. This information was added to the TS Bases in 1999. A review identified multiple occurrences over the past three years in which Columbia had not entered the appropriate TS, and on five occurrences, Columbia was in a condition prohibited by TS. The cause is due to human error in failing to recognize that the change to the TS Bases in 1999 required NRC review and approval. Corrective actions consist of revising the affected procedures and work instructions and correcting the TS Bases language. There were no actual safety consequences associated with this event.</p>																																							

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NARRATIVE**Plant Conditions:****Event Description:**

In July 2012, the Nuclear Regulatory Commission (NRC) questioned Columbia Generating Station's (Columbia) practice of applying the Service Water (SW) [EIS: BI] Technical Specification (TS) 3.7.1, as called out in procedures and work instructions, when taking safety related room coolers [EIS: CLR] or fans out of service. This question was entered into Columbia's corrective action process and on October 3, 2012, it was determined that this practice was inappropriate. Specifically, Columbia did not enter the appropriate TS for an inoperable system, subsystem, train or component when the necessary attendant non-technical specification support equipment was not capable of performing its support function. Columbia entered the TS Limiting Condition for Operation (LCO) Action for one SW subsystem inoperable rather than entering the appropriate TS Action for the equipment supported by the room coolers.

Columbia's procedures and work instructions directed entry into TS 3.7.1 Actions when either room coolers or main control room envelope fans [EIS: FAN] were inoperable. The room coolers contain cooling coils cooled by SW. The procedures and work instructions were based on an example provided in TS Bases 3.7.1 which stated that "if DC Sources - Operating (LCO 3.8.4) is not met solely due to room cooler degradation and entry into LCO 3.7.1 Conditions and Required Actions is made, the electrical equipment in the affected equipment room(s) are required to be declared inoperable, however, the Conditions and Required Actions associated with this supported system (LCO 3.8.4) are not required to be entered." Due to the application of this provision in the TS Bases, Columbia failed to enter the appropriate TS Condition and, in some cases, failed to complete the Required Actions within the associated Completion Times upon removal of a safety related room cooler from service. This resulted in several occurrences in which Columbia was in a condition prohibited by TS and reportable under 10CFR50.73(a)(2)(i)(B).

Extent of Condition:

An extent of condition review was performed to determine when, in the past three years, this provision has been used when room coolers were removed from service. Thirty instances were found. Of these, five instances were found when the total out of service time exceeded the TS allowed outage time as follows:

- On 11/24/09, RRA-FN-11 (room cooling for Division 1 125 V AC power distribution system [EIS: ED]), was inoperable 32.7 hours. TS 3.7.1.B "One SW subsystem inoperable" and TS 3.8.1.B "One required DG inoperable" were entered instead of TS 3.8.7.A "Division 1 or 2 AC electrical power distribution subsystem inoperable." TS 3.8.7.A requires restoration of Division 1 AC electrical power distribution subsystem within 8 hours or else be in Mode 3 in the following 12 hours. Contrary to this Columbia remained in Mode 1.
- On 4/26/10, RRA-FN-10 (room cooling for Division 2 125 V AC power distribution system [EIS: ED]) was inoperable 20.0 hours. TS 3.7.1.B "One SW subsystem inoperable" and TS 3.8.1.B "One required DG inoperable" were entered instead of TS 3.8.7.A "Division 1 or 2 AC electrical power distribution subsystem inoperable." TS 3.8.7.A requires restoration of Division 2 AC electrical

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NARRATIVE

power distribution subsystem within 8 hours or else be in Mode 3 in the following 12 hours. Contrary to this Columbia remained in Mode 1.

- On 8/4/10, RRA-FN-11 was inoperable 25.7 hours. TS 3.7.1.B "One SW subsystem inoperable" and TS 3.8.1.B "One required DG inoperable" were entered instead of TS 3.8.7.A "Division 1 or 2 AC electrical power distribution subsystem inoperable." TS 3.8.7.A requires restoration of Division 1 AC electrical power distribution subsystem within 8 hours or else be in Mode 3 in the following 12 hours. Contrary to this Columbia remained in Mode 1.
- On 9/1/10, RRA-FN-12 (room cooling for Division 1 250 V DC power distribution system [EIS: EJ]) was inoperable for 18.2 hours. TS 3.7.1.B "One SW subsystem inoperable" and TS 3.8.1.B "One required DG inoperable" were entered instead of TS 3.8.7.D "Division 1 250 V AC electrical power distribution subsystem inoperable." TS 3.8.7.D requires declaring supported features inoperable immediately. A supported feature, RWCU-V-4 (a primary containment isolation valve [EIS: ISV]) should have been declared inoperable and in accordance with TS 3.6.1.3.A be isolated within 4 hours or be in Mode 3 within 12 hours. Contrary to this Columbia remained in Mode 1.
- On 9/1/10, RRA-FN-11 was inoperable 21.3 hours. TS 3.7.1.B "One SW subsystem inoperable" and TS 3.8.1.B "One required DG inoperable" were entered instead of TS 3.8.7.A "Division 1 or 2 AC electrical power distribution subsystem inoperable." TS 3.8.7.A requires restoration of Division 1 AC electrical power distribution subsystem within 8 hours or else be in Mode 3 in the following 12 hours. Contrary to this Columbia remained in Mode 1.

Immediate Corrective Action:

Plant procedures and work order instructions were revised to direct entry into the correct TS Action.

Cause:

LCO 3.0.6 provides guidance regarding the appropriate actions to be taken when a single inoperability of a support system also results in the inoperability of one or more supported systems. However, for LCO 3.0.6 to be applied, there must be a specific LCO covering the supported system. For instance, SW is a support system for ECCS. If SW is inoperable, LCO 3.0.6 allows you to just enter the Actions for SW and not enter the Actions for ECCS. For cases where there is no specific LCO for the support equipment, the supported system Actions must be entered.

LCO 3.0.6 was added to the TS during the conversion to Improved TS (ITS) in 1997. The ITS conversion was based on NUREG-1434 Rev. 1 for BWR/6 plants. SW is the ultimate cooling water for all of the safety related room coolers. If an entire subsystem of SW is inoperable, LCO 3.0.6 requires that TS 3.7.1 be entered. The individual safety related room coolers were not covered by their own TS LCO. In 1999, plant staff concluded that it was not logical to have to enter a more restrictive TS for having one room cooler inoperable, versus an entire subsystem of SW. Consequently, the TS Bases were modified to provide an example of entry into TS 3.7.1 Actions for inoperable room coolers. This change was done under 10 CFR 50.59 and did not receive NRC approval. This change was not consistent with TS rules of usage and did not comply with TS language. The change incorrectly identified the room coolers as supporting the function of SW so that an inoperability of the room cooler would only require entry into the associated actions for the SW system. This then incorrectly allowed the provisions of LCO 3.0.6 to be used to avoid entering the Conditions and Required Actions of the supported system(s).

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This change to the TS Bases was made to address a lack of specificity in the TS concerning safety related room coolers. However, the correct change mechanism was not utilized. The plant staff used the 10 CFR 50.59 process rather than obtaining a License Amendment under 10 CFR 50.90. Plant staff did not recognize the change as being a change to the TS. Since the change was made over a decade ago, the causes of the human error cannot be determined with any certainty. However, it is believed that the staff may have made a technical argument for the acceptability of the change without recognizing that they were not in compliance with the rules for making changes.

Operating Experience & Previous Occurrences:

On February 14, 2012, Arkansas Nuclear Unit-1 received a similar NCV for improperly entering TS 3.7.1 instead of TS 3.8.4.

Further Corrective Actions:

The language in the TS Bases will be revised as appropriate.

Assessment of Safety Consequences:

CGS is analyzed and evaluated for a loss of one subsystem of service water for 72 hours (TS 3.7.1). Service water is the ultimate cooling source for all of the safety related room coolers. Having an individual room cooler out of service for up to 72 hours is bounded by the loss of one subsystem of service water. There was no impact on safety consequences.

Energy Industry Identification System (EIIIS) Information

EIIS codes are bracketed [] where applicable in the narrative.