

NRR-PMDAPEm Resource

From: Klos, John
Sent: Wednesday, December 07, 2016 11:49 AM
To: Garcia, Richard M.
Cc: Klos, John
Subject: Columbia MUR LAR RAIs: Human performance: MF8060, formal release for response on Monday January 9, 2017

Dear Mr. Garcia,

By letter dated June 28, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16183A365), as supplemented by letter dated August 18, 2016, ADAMS Accession No. ML16231A511, Energy Northwest submitted a license amendment for Columbia Generating Station. The proposed amendment would revise the operating license and technical specification to implement an increase in rated thermal power from the current licensed thermal power of 3486 megawatts thermal (MWt) to a measurement uncertainty recapture thermal power of 3544 MWt.

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the submittal and determined that following requests for additional information (RAIs) are needed to complete its technical review and make a regulatory finding regarding this license amendment.

Please see the formal RAIs below. A clarification call was held on December 7, 2016 to ensure your staff understood the RAIs. In the clarification call, Energy Northwest agreed to submit the response to the RAIs by Monday January 9, 2017.

REQUEST FOR ADDITIONAL INFORMATION
REGARDING LICENSE AMENDMENT REQUEST FOR
MEASUREMENT UNCERTAINTY RECAPTURE POWER UPRATE
COLUMBIA GENERATING STATION
ENERGY NORTHWEST
DOCKET NO. 50-397

Background:

By letter dated June 28, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16183A365), as supplemented by letter dated August 18, 2016, ADAMS Accession No. ML16231A511, Energy Northwest submitted a license amendment for Columbia Generating Station (CGS). The proposed amendment would revise the operating license and technical specification to implement an increase in rated thermal power from the current licensed thermal power of 3486 megawatts thermal (MWt) to a measurement uncertainty recapture thermal power of 3544 MWt.

Regulatory Basis:

The NRC Regulatory Issue Summary (RIS) 2002-003: Guidance on the Content of Measurement Uncertainty Recapture Power Uprate Applications was developed by the U.S. Nuclear Regulatory Commission (NRC) staff to provide guidance to licensees on the scope and detail of the information that should be provided to the NRC for reviewing measurement uncertainty recapture power uprate applications. Specifically, Attachment 1, Section VII, "Other", of the RIS contains a standard set of questions for human performance reviews.

Regulatory Guide 1.149, "Nuclear Power Plant Simulation Facilities for Use in Operator Training, License Examinations, and Applicant Experience Requirements" Rev. 4.

RAI-1

RIS 2002-03, Attachment 1, Section VII.1, states that the licensee should provide a statement confirming that operator actions that are sensitive to the power uprate, including any effects on the time available for operator actions, have been identified and evaluated.

Please describe any changes in timing to the operator actions for the proposed amendment.

RAI-2

RIS 2002-03, Attachment 1, Section VII.2.B, states that the licensee should provide a statement confirming that they have identified all modifications associated with the proposed power uprate, with respect to the control room controls, displays (including the safety parameter display system) and alarms to ensure that changes in operator actions do not adversely affect defense in depth or safety margins.

The licensee stated in Enclosure 1, Section 3.4.3, "Plant modifications," of the MUR LAR, ADAMS Accession No. ML16183A365 that

"the evaluations performed to support the MUR power uprate identified that no physical modifications are required to plant systems. However, software changes to [Plant Process Computer] PPC are required to support the interface with the [Leading Edge Flow Meter] LEFM system for operation above the [Current License Thermal Power] CLTP limit of 3486 [Megawatts thermal] MWt."

The licensee has identified non-safety related systems affected by the proposed LAR, but there is no specific mention of the Safety Parameter Display System (SPDS).

Please describe the effects of the proposed amendment on the SPDS, if any.

RAI-3

RIS 2002-03, Attachment 1, Section VII.2.C, states that the licensee should provide a statement confirming that they have identified all modifications associated with the proposed power uprate, with respect to the control room plant reference simulator to ensure that changes in operator actions do not adversely affect defense in depth or safety margins.

The licensee stated in the MUR LAR, Enclosure 9, Safety Analysis Report for Columbia Generating Station Thermal Power Optimization, Section 10.5, "Operator Training and Human Factors," ADAMS Accession No. ML16183A365 that;

"Simulator changes and validation for the TPO [Thermal Power Optimization] will be performed in accordance with established CGS plant simulator certification testing procedures."

Please describe the established CGS plant simulator certification testing procedures. In your response, describe whether the simulator certification testing procedures meet the guidance of Regulatory Guide 1.149, "Nuclear Power Plant Simulation Facilities for Use in Operator Training, License Examinations, and Applicant Experience Requirements" Rev. 4, which endorses ANSI/ANS-3.5-1998, "Nuclear Power Plant Simulators for Use in Operator Training and Examination" or describe another method that meets the applicable regulations.

Thank you,

John Klos

DORL Callaway, Columbia Project Manager

U.S. NRC, Office of Nuclear Reactor Regulation,

Division of Operating Reactor Licensing, O8E7

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