

NRR-PMDAPEm Resource

From: Thompson, Jon
Sent: Monday, August 06, 2012 11:08 AM
To: Ashe, Ken; Bryant, Julius W
Cc: Thorp, John; Mazumdar, Subinoy
Subject: Request for Additional Information for License Amendment Request dated March 5, 2012 (TAC Nos. ME8213 and ME8214), RAI Questions 43 and 44

SUBJECT: MCGUIRE NUCLEAR STATION, UNITS 1 AND 2, REQUEST FOR ADDITIONAL INFORMATION REGARDING LICENSE AMENDMENT RELATED TO MEASUREMENT UNCERTAINTY RECAPTURE POWER UPRATE (TAC NOS. ME8213 AND ME8214)

By letter dated March 5, 2012, Duke Energy Carolinas, LLC (the licensee), submitted a proposed license amendment to change the McGuire Nuclear Station, Units 1 and 2 (McGuire 1 and 2), Technical Specifications (TSs). The proposed change revises the TSs to implement a measurement uncertainty recapture power uprate for McGuire 1 and 2.

The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the licensee's submittal and determined that additional information is needed in order to complete our review. The enclosed document describes this request for additional information (RAI). Please note that the numbering of the questions in this RAI does not begin at the number one. Three prior RAIs regarding this proposed license amendment were issued to you by letters dated April 27, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12117A175), May 22, 2012 (ADAMS Accession No. ML12138A267), June 6, 2012, (ADAMS Accession No. ML12158A481), June 15, 2012 (ADAMS Accession No. ML12168A002), and August 1, 2012 (ADAMS Accession No. ML12215A330), with RAI questions numbered 1-4, 5-19, 20-31, 32-40, and 41-42, respectively.

A telephone conference will be set up to discuss these RAI questions, as needed. If you have any questions, please call me at 301-415-1119.

Sincerely,

Jon Thompson, Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-369 and 50-370

Enclosure: RAI

REQUEST FOR ADDITIONAL INFORMATION
BY THE OFFICE OF NUCLEAR REACTOR REGULATION
REGARDING LICENSE AMENDMENT REQUEST RELATED TO THE
IMPLEMENTATION OF A MEASUREMENT UNCERTAINTY RECAPTURE POWER UPRATE

MCGUIRE NUCLEAR STATION, UNITS 1 AND 2

By letter dated March 5, 2012 (Agencywide Documents Access and Management System (ADAMS), Accession No. ML12082A210), Duke Energy Carolinas, LLC (Duke Energy, the licensee), submitted a license amendment request (LAR) to change the McGuire Nuclear Station, Units 1 and 2 (McGuire 1 and 2), Technical Specifications (TSs). The proposed change revises the TSs to implement a measurement uncertainty recapture (MUR) power uprate for McGuire 1 and 2.

By letter July 6, 2012, (ADAMS Package No. ML121990025) the licensee responded to the NRC's request for additional information (RAI) question 20.c, dated June 6, 2012 (ADAMS Accession No. ML12158A481). RAI question 20.c requested the following: (1) engineering evaluation on how the bounding uncertainty of 0.045% rated thermal power (RTP) was established in calculating secondary calorimetric uncertainty (SCU) and (2) justifications for selection of a 7-day period upon loss of the leading edge flow meter (LEFM). In its response, the licensee stated that these numbers were established using a drift analysis of the operator aid computer calorimetric data, which is then compared to the turbine first stage pressure for one year of full operation. Based on this drift analysis, a bounding value of 0.0451%, RTP was estimated. This analysis was performed by Cameron and inspected and run independently by the licensee.

The NRC staff has reviewed the licensee's response and determined that following additional information are needed to complete the safety evaluation:

43. The licensee indicated that bounding value of 0.045% RTP SCU was established by one year study of the SCU data. Provide information how this bounding SCU data will be updated based on future plant performance data.
44. The MUR LAR is asking for 7 days plant operation with the above bounding SCU when the LEFM is inoperative. For previous measurement uncertainty recapture (MUR) power uprate applications, the NRC approved similar allowed outage time (AOT) with LEFM inoperable for maximum of 3 days, which is consistent with Cameron's analysis and recommendations to operate with a failed LEFM. AOT of 3 days for repair or replacement of inoperable instrumentation and controls systems is an established practice in the nuclear power industry. Please explain why 7-days AOT at the higher power level is needed for McGuire, when the LEFM equipment that justifies operation at the higher power level is inoperable.

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