



Fort Calhoun Station
P.O. Box 550, Highway 75
Fort Calhoun, NE 68023-0550

December 15, 2003
LIC-03-0164

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

- References:
1. Docket No. 50-285
 2. Letter from OPPD (S. K. Gambhir) to NRC (Document Control Desk) dated August 28, 2003, Fort Calhoun Station (FCS) Unit No. 1 License Amendment Request, "Measurement Uncertainty Recapture Power Uprate" (LIC-03-0122)
 3. Letter from NRC (A. B. Wang) to OPPD (R. T. Ridenoure) dated October 14, 2003, "Fort Calhoun Station Unit No. 1 – Measurement Uncertainty Recapture Power Uprate" (TAC No. MC0029) (NRC-03-198)
 4. Letter from OPPD (S. K. Gambhir) to NRC (Document Control Desk) dated October 21, 2003, Response to Request for Additional Information - Measurement Uncertainty Recapture Power Uprate (LIC-03-0148)

SUBJECT: Response to Additional Request for Information - Measurement Uncertainty Recapture Power Uprate (TAC No. MC0029)

The Reference 3 letter from the NRC included a Request for Additional Information (RAI) to support staff review of the Reference 2 License Amendment Request. The Reference 4 letter provided the Omaha Public Power District (OPPD) response to the RAI.

On December 5, 2003, a telephone call between NRC/NRR staff members and OPPD resulted in an additional request for information concerning instrument setpoint methodology. This request and the OPPD response are included in the attachment.

Please contact T. C. Matthews at (402) 533-6938 if you require additional information.

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I declare under penalty of perjury that the forgoing is true and correct. (Executed on December 15, 2003) No commitments to the NRC are made in this letter.

Sincerely,

A handwritten signature in black ink, appearing to read "S. K. Gambhir". The signature is stylized with a large initial "S" and a cursive "K".

S. K. Gambhir
Division Manager
Nuclear Projects

TCM/tcm

Attachment

c: B. S. Mallett, Regional Administrator, NRC Region IV
A. B. Wang, NRC Project Manager
J. G. Kramer, NRC Senior Resident Inspector
Division Administrator - Public Health Assurance, State of Nebraska

NRC Request for Information (Instrument Setpoint Methodology):

Discuss the instrument setpoint methodology used to calculate trip setpoints and allowable values of the plant parameters affected by the power uprate. If you use method 3 specified in ISA S67.04.02, then confirm that a check calculation is performed to account for all loop uncertainty not measured during the Channel Operational Test / Channel Functional Test. Provide a sample calculation to demonstrate this.

NOTE: If your methodology has not been previously reviewed by the NRC staff, then submit a copy of plant instrument setpoint methodology for staff's review and approval.

OPPD Response:

The question is taken as a request to describe how we account for all components of instrument uncertainty when checking setpoints as part of a periodic functional check or a refueling frequency as-found operability check. Method 3 of ISA-RP67.04.02 allows certain components of uncertainty to be removed from the nominal trip setpoint in the determination of an allowable value. The inference in the RAI is that there is a need to perform a check calculation when using an allowable value, as defined in the ISA recommended practice, for periodic setpoint checks.

Uncertainty calculations for RPS and ESF at Fort Calhoun Station were reconstituted in the early 1990s using the 67.04 methodology. Since setpoints and associated procedural tolerances already existed prior to the reconstitution effort, uncertainty calculations were performed with the intent of demonstrating that total instrument loop uncertainty (TLU) was bounded by the current setpoint values identified in plant calibration procedures. There was no attempt to make use of allowable values as defined in method 3 of section 7.3 of ISA-RP67.04.02. The setpoint tolerance utilized for quarterly functional checks is used as a component of the overall loop uncertainty and therefore is accounted for in the loop calculation. The concept of allowable value was intended as a means to remove some of the conservatism from the loop uncertainty calculation for periodic setpoint checks. This was not needed at FCS for RPS and ESF setpoints, because historical trends showed that there was very little drift in these setpoints.

Since method 3 of ISA-RP67.04.02 is not utilized at FCS to calculate and apply allowable values, there is no need to perform a check calculation. There is always adequate margin between the analytical limit and the worst case setpoint to account for all of the required components included in the TLU calculation. If a setpoint is found outside the tolerance permitted in the calibration or functional check procedure, the loop is considered inoperable and action is taken to restore it to the proper range.

It should be mentioned that, as part of the instrument uncertainty reconstitution project, some of the upgraded calculations did include a separate calculation for allowable value.

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Furthermore, the FCS-specific methodology includes instructions on how to calculate allowable value. However, as mentioned above, FCS has not made use of this allowable value in calibration procedures or functional checks since it was not considered necessary.

Because the current RPS and ESF setpoints do not incorporate allowable values as defined by method 3 of ISA-RP67.04.02, any change to these setpoints to incorporate method 3 allowable values would require prior NRC approval of changes to applicable Technical Specifications.