

From: Lawrence Burkhart
To: Brian Sepelak
Date: 2/16/01 2:31PM
Subject: Re: RTDP Information

Brian,

Would you have complete copies of the WCAPs you mentioned in your draft response? I don't have files from that long ago but I may be able to copy from microfiche. However, if you have a copy, it may be quicker to send them. Please let me know.

Also attached are additional questions (I forwarded the Westinghouse contact name and number to my technical reviewer (Hulbert Li) - I believe Hulbert will be discussing these with him).

Larry.

P.S. Monday is a federal holiday and I will not be in the office. I will return on Tuesday, 2/20/01.

>>> <sepelakb@firstenergycorp.com> 02/16 8:53 AM >>>

The attached Word file provides responses to questions regarding previous NRC reviews of setpoint WCAPs and Mini RTDP. It also provides the locations of logic diagrams in the UFSARs for both units.

(See attached file: RTDP RAI.doc)

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Subject: Re: RTDP Information
Creation Date: 2/16/01 2:31PM
From: Lawrence Burkhart

Created By: LJB@nrc.gov

Recipients

firstenergycorp.com
sepelakb (Brian Sepelak)

Post Office
firstenergycorp.com

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REQUEST FOR ADDITIONAL INFORMATION ON BEAVER VALLEY'S 12/27/2000 SUBMITTAL

First Energy Nuclear Operating Company (licensee) submitted a request on 12/27/2000 for license amendment on Beaver Valley Units 1 and 2 Technical Specifications (TS) changes. In supporting these TS changes, the licensee also submitted four Westinghouse Topical Reports:

- (1) WCAP-11419, "Setpoint Methodology for Protection Systems for Beaver Valley Unit 1"**
- (2) WCAP-11366, "Setpoint Methodology for Protection Systems for Beaver Valley Unit 2"**
- (3) WCAP-15264, "Revised Thermal Design Procedure Instrument Uncertainty for Unit 1"**
- (4) WCAP-15265, "Revised Thermal Design Procedure Instrument Uncertainty for Unit 2"**

The following questions are related to the review of the above topical reports:

- (1) The Westinghouse setpoint methodology reports (WCAP-11419 & WCAP-11366) stated that the methodology for Beaver Valley Unit 1 & 2 protection system setpoints are consistent with ISA S67.04, Part 1, 1994, that was endorsed by NRC Regulatory Guide 1.105, Revision 3. However, WCAP-15264 and WCAP-15265 reports are reference to RG 1.105, Revision 2. Please identify and justify the areas in the instrument uncertainty study that are not conformed with RG 1.105, Revision 3.**
- (2) The basic equations of Overpower Delta T for Beaver Valley Units 1 and 2 are different from the Standard Technical Specifications of Westinghouse Plants. Please explain the reason for the difference.**
- (3) The Pressurizer Pressure channel uncertainties in the protection system setpoint study (WCAP-11419), the channel statistical allowance (CSA) is about $\pm 2.5\%$ to $\pm 2.7\%$ span, while in the RTDP instrument uncertainty study (WCAP-15265), the channel statistical allowance (CSA) is about $\pm 4.4\%$ span. Please explain the difference between these two studies.**
- (4) Please explain the following questions related to WCAP-15265 Table 1, "Pressurizer Pressure Control System Uncertainties": (a) How the CSA was calculated? Are they combined with control and indication? (b) Why only consider the seismic effects on Rosemount transmitter, and not consider the seismic effects on Barton transmitters? (c) Why the effects of radiation and temperature are not considered? WCAP-11366 Table 3-9 "Pressurizer Pressure - Low, SI" has considered the radiation and temperature effects. (d) A foot note stated that (LOE)* treated as a bias. Another term listed as (bias+LOE). What is the difference between these two terms. (e) Why (LOE)* for CSA is -7.5 psi while (LOE)* for controller is +7.5 psi?**

- (5) When Beaver Valley Units 1 and 2 have the reactor coolant system's RTD bypass manifolds removed? How does this modification affect the setpoint study on the Tavg channel uncertainties?**
- (6) In Tavg uncertainties calculation (Page 7 in WCAP-15265), It stated that the Tavg controller accuracy is the combination of the instrumentation accuracy and the deadband. Why the "deadband" has not been considered in other controller accuracy calculation, such as pressurizer pressure control, RCS flow control, and other secondary side controls?**