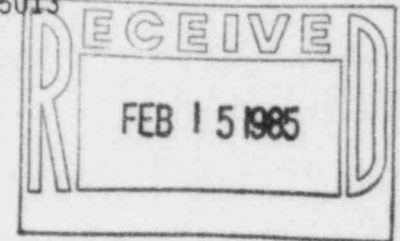




Public Service

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February 11, 1985
Fort St. Vrain
Unit No. 1
P-85013



Regional Administrator
Region IV
U. S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite #1000
Arlington, Texas 76011

ATTN: Mr. Eric H. Johnson

DOCKET NO: 50-267

SUBJECT: Additional Information on Proposed
Amendment to LCO 4.1.9

REFERENCE: PSC letter, H. L. Brey
to E. H. Johnson, dated
November 20, 1984 (P-84504)

Dear Mr. Johnson:

The referenced letter addressed some of the NRC comments on Fort St. Vrain Technical Specification LCO 4.1.9 and anticipated submittal of further information by January 15, 1985. The analyses and investigations necessary to respond fully have proven to be more time consuming than PSC anticipated, however, the following additional information is submitted as an interim response.

In response to ORNL's suggestion that orifice positioning be automated, PSC agrees that it would be advantageous to automate the calculation of optimum orifice positions. PSC intends to evaluate the adaptation of the POKE Code for this purpose. This would reduce, but not necessarily eliminate, the "trial and error" aspects of orifice valve adjustments. In the meantime, PSC maintains that it is necessary to facilitate the orifice valve transition from equal flow positions to equal outlet temperature positions, with or without automated calculations, and is preparing a design change for the orifice control circuitry to accomplish this.

Regarding core flow and power indications, there are several core flow indications available to the operator including the flow indicators and a flow recorder on control panel I-05, the datalogger display, the Accurex computer, and, as a backup, manual calculations based on either circulator differential pressure and primary coolant temperature and pressure, or circulator speed, core differential pressure and primary coolant temperature and pressure. PSC has evaluated the uncertainties associated with these methodologies at low flow rates and is evaluating ways to minimize the impact of the uncertainty term on the final LCO requirements. However, final conclusions on this issue have not been reached as yet.

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Power indication at lower power levels, generally below 15% power, is provided by the linear power channels located on control panel I-03 and the primary heat balance which is displayed on the datalogger or which can be calculated manually. The primary side heat balance is the preferred indication for Low Power operation and provides the basis for determining compliance with the LCO requirements. The uncertainties associated with this power indication have been considered in establishing the LCO requirements.

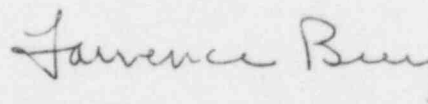
The error in the calculation of the pressure drop through the orifice valve has been corrected. The current analysis work and, of course, future analysis will reflect this correction.

PSC has evaluated the various sources of motive power for the helium circulators relative to enhancing helium flow capabilities. It does not appear to be feasible to increase helium flow capability without major plant modifications. Nevertheless, PSC Engineering is continuing to investigate the various alternatives to insure adequate helium flow capabilities, but no conclusions have been reached to date.

After these issues are resolved, PSC intends to submit a revised LCO 4.1.9 amendment which will also address the situation of a limited number of mispositioned orifice valves.

PSC is continuing to pursue this issue diligently and will advise the NRC of the progress on these matters by May 1, 1985. If you have any questions, please contact Mr. M. H. Holmes at (303) 571-8409.

Very truly yours,



H. L. Brey,
Executive Staff Assistant
Electric Production

HLB/MHH/bjr