

SNUPPS

Standardized Nuclear Unit
Power Plant System

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Nicholas A. Petrick
Executive Director

August 31, 1981

SLNRC 81- 077 FILE: 0541
SUBJ: NRC Request for Additional
Information-Core Thermal
Hydraulics



Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Docket Nos.: STN 50-482, STN 50-483, and STN 50-486

Ref: NRC (Youngblood) letter to UE (Bryan) and KGE (Koester), dated
August 25, 1981, same subject

Dear Mr. Denton:

The referenced letter requested additional information for the SNUPPS
FSAR in the area of core thermal hydraulics. The enclosure to this
letter provides the requested information and will be incorporated in
Revision 7 to the SNUPPS FSAR.

Very truly yours,

Nicholas A. Petrick

RLS/dck/3a8

Enclosure

cc: J. K. Bryan, UE
G. L. Koester, KGE
D. T. McPhee, KCPL
W. A. Hansen, NRC/Cal
T. E. Vandel, NRC/WC

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Q492.8 Standard format and content of Safety Analysis Reports, Regulatory Guide 1.70, states that in Chapter 4 of the SAR

"...the applicant should provide an evaluation and supporting information to establish the capability of the reactor to perform its safety functions throughout its design lifetime under all normal operation modes..."

Are the analyses presented in Section 4.4 representative of the initial core only or have future cycles been analyzed? Provide a discussion of how power distributions for future cycles are considered in the FSAR analyses. Is there any assurance that the Callaway Units (Wolf Creek) can operate at the licensed power level without excessive DNB trips throughout future cycles? Will revisions to the design methodology be required in order to maintain sufficient thermal margin?

RESPONSE

The goal of the reload safety evaluation is to confirm the validity of the existing safety analysis. The existing safety analysis is defined as the reference safety analysis and is intended to be valid for all plant cycles. Thus safety analysis input parameter values are selected to bound the values expected in all subsequent cycles. This bounding analysis concept is the key to the Westinghouse reload safety analysis methodology. When all reload safety related parameters for a given accident are bounded, the reference safety analysis is valid. On the other hand, when a reload parameter is not bounded, further evaluation is necessary. The purpose of this further evaluation is to confirm that the margin of safety defined in the basis for any technical specification is not reduced. This reload safety evaluation methodology is applied whenever the input parameter values for a reference safety analysis are available. In summary, Westinghouse reload safety evaluation methodology consists of:

1. A systematic evaluation to determine whether the reload parameters are bounded by the values used in the reference safety analysis.
2. A determination of the effects on the reference safety analysis when a reload parameter is not bounded to ensure that specified design bases are met.

When the above process identifies either a potential unreviewed safety question or the need for a change in the plant Technical Specifications, the SNUPPS Utility will make the appropriate notification to the NRC.