

ATTACHMENT 3

PROPOSED TECHNICAL SPECIFICATION CHANGE

Quad Cities Unit 2 (DPR-30) Appendix A

Page

1.1/2.1-1

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1.1/2.1 FUEL CLADDING INTEGRITY

SAFETY LIMIT

Applicability:

The safety limits established to preserve the fuel cladding integrity apply to those variables which monitor the fuel thermal behavior.

Objective:

The objective of the safety limits is to establish limits below which the integrity of the fuel cladding is preserved.

LIMITING SAFETY SYSTEM SETTING

Applicability:

The limiting safety system settings apply to trip settings of the instruments and devices which are provided to prevent the fuel cladding integrity safety limits from being exceeded.

Objective:

The objective of the limiting safety system settings is to define the level of the process variables at which automatic protective action is initiated to prevent the fuel cladding integrity safety limits from being exceeded.

SPECIFICATIONS

A. Reactor Pressure > 800 psig and Core Flow > 10% of Rated

The existence of a minimum critical power ratio (MCPR) less than 1.06 shall constitute violation of the fuel cladding integrity safety limit.

B. Core Thermal Power Limit (Reactor Pressure ≤ 800 psig)

When the reactor pressure is ≤ 800 psig or core flow is less than 10% of rated, the core thermal power shall not exceed 25% of rated thermal power.

C. Power Transient

1. The neutron flux shall not exceed the scram setting established in Specification 2.1A for longer than 1.5 seconds as indicated by the process computer.
2. When the process computer is out of service, this safety limit shall be assumed to be exceeded if the neutron flux exceeds the scram setting established by Specification 2.1.A and a control rod scram does not occur.

A. Neutron Flux Trip Settings

The limiting safety system trip settings shall be as specified below:

1. APRM Flux Scram Trip Setting (Run Mode)

When the reactor mode switch is in the Run position, the APRM flux scram setting shall be as shown in Figure 2.1.1 and shall be:

$$S \leq (.58W_D + 62)$$

with a maximum setpoint of 120% for core flow equal to 98×10^6 lb/hr and greater.

where

S = setting in percent of rated power

W_D = percent of drive flow required to produce a rated core flow of 98 million lb/hr. In the event of operation with a maximum fraction of limiting power density (MFLPD) greater than the fraction of rated power (FRP), the setting shall be modified as follows:

$$S \leq (.58W_D + 62) \left[\frac{FRP}{MFLPD} \right]$$

ATTACHMENT 4

EVALUATION OF SIGNIFICANT HAZARDS CONSIDERATION

Commonwealth Edison Company proposes an amendment to Facility Operating License DPR-30 which would change the Technical Specifications to allow for operation during Cycle 11 and subsequent cycles with a fuel type which, while new to Quad Cities reloads, has been previously approved by the NRC on a generic basis.

1. Description of Amendment Request.

The proposed change to Facility Operating License DPR-30, Appendix A (Technical Specifications and Bases), 1.1/2.1.1, is to raise the safety limit Minimum Critical Power Ratio (MCPR) from 1.04 to 1.06.

2. Basis for Proposed No Significant Hazards Consideration Determination

Commonwealth Edison has evaluated the proposed Technical Specifications change and determined that it does not represent a significant hazards consideration. Based on the criteria for defining a significant hazard established in 10 CFR 50.92(c), the proposed change:

- a. will not involve a significant increase in the probability or consequences of an accident previously evaluated because the 1.06 safety limit MCPR value will preserve the required margin of safety for clad integrity. Not only will the margin of safety be preserved for GE8x8NB, but, additionally, this margin of safety will be increased for the other (non-limiting) fuel types present in the core. The new fuel type (GE8x8NB) and analytical methods for establishing the safety limit have previously received NRC approval.
- b. will not create the possibility of a new or different kind of accident from any accident previously evaluated because the primary fission product barrier will continue to be protected during normal and transient operation. The fuel design, associated analytical methods, and safety limit were previously reviewed and approved by the NRC based on the fuel vendor's generic Licensing Topical Report for reload fuel, NEDE-24011-P-A-9. The Quad Cities Unit 2 reactor is within the range of plant designs for which the application of this fuel type has been found acceptable from all safety and licensing aspects.
- c. will not involve a significant reduction in the margin of safety because the required margins will be at least maintained for all fuel types and increased for some fuel types. The proposed Technical Specification change reflects the previously approved safety limit for GE8x8NB fuel.

Based on the above evaluation, Commonwealth Edison concludes that the proposed amendment does not represent a significant hazards consideration.