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U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Document Control Desk

Subject: Oconee Nuclear Station
Docket Numbers 50-269, 270, and 287
Technical Specification Bases Changes

Please find attached revisions to Tech Spec Bases B 3.1.4, Control Rod Group Alignment Limits which were approved by Station Management on July 25, 2000 and implemented on July 27, 2000. This change eliminates the reed switch spacing on the absolute position indicator system.

Attachment 1 contains the new Technical Specification Bases pages and Attachment 2 contains the markup version of the Bases pages.

If any additional information is needed, please contact Larry E. Nicholson, (864-885-3292)

Very truly yours,

WR McCollum/

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Attachment 1

BASES

BACKGROUND (continued)

The CONTROL RODS are arranged into rod groups that are radially symmetric. Therefore, movement of the CONTROL RODS does not introduce radial asymmetries in the core power distribution. The CONTROL RODS provide required negative reactivity worth for immediate reactor shutdown upon a reactor trip. The regulating rods provide reactivity control during normal operation and transients, and their movement is normally governed by the Integrated Control System.

The axial position of CONTROL RODS is indicated by two separate and independent systems, which are the relative position indicator transducers and the absolute position indicator transducers (see LCO 3.1.7, "Position Indicator Channels").

The relative position indicator transducer is a potentiometer coupled to a pulse stepping motor that is driven by electrical pulses from the RDCS. There is one relative position indicator for each CONTROL ROD drive. Individual rods in a group, when all aligned to the same power supply, receive the same signal to move; therefore, the counters for all rods in a group should normally indicate the same position. The Relative Position Indicator System is considered highly precise (one rotation of the leadscrew is ¾ inch in rod motion). However, if a rod does not move for each demand pulse, the counter will still count the pulse and incorrectly reflect the position of the rod.

The Absolute Position Indicator System provides an accurate indication of actual CONTROL ROD position, but at a lower precision than the relative position indicators. This system is based on inductive analog signals from a series of reed switches.

APPLICABLE SAFETY ANALYSES

CONTROL ROD misalignment and inoperability are analyzed in the safety analysis (Ref. 3). The criteria for addressing CONTROL ROD inoperability or misalignment are that:

a. There shall be no violations of:

1. specified acceptable fuel design limits, or
2. Reactor Coolant System (RCS) pressure boundary damage; and

b. The core must remain subcritical after accident transients, except for a main steam line break (MSLB). The analysis results for a MSLB with a coincident failure of the most reactive rod to insert results in a return to criticality.

Attachment 2

BASES

BACKGROUND (continued)

The CONTROL RODS are arranged into rod groups that are radially symmetric. Therefore, movement of the CONTROL RODS does not introduce radial asymmetries in the core power distribution. The CONTROL RODS provide required negative reactivity worth for immediate reactor shutdown upon a reactor trip. The regulating rods provide reactivity control during normal operation and transients, and their movement is normally governed by the Integrated Control System.

The axial position of CONTROL RODS is indicated by two separate and independent systems, which are the relative position indicator transducers and the absolute position indicator transducers (see LCO 3.1.7, "Position Indicator Channels").

The relative position indicator transducer is a potentiometer coupled to a pulse stepping motor that is driven by electrical pulses from the RDCS. There is one relative position indicator for each CONTROL ROD drive. Individual rods in a group, when all aligned to the same power supply, receive the same signal to move; therefore, the counters for all rods in a group should normally indicate the same position. The Relative Position Indicator System is considered highly precise (one rotation of the leadscrew is ¾ inch in rod motion). However, if a rod does not move for each demand pulse, the counter will still count the pulse and incorrectly reflect the position of the rod.

The Absolute Position Indicator System provides an accurate indication of actual CONTROL ROD position, but at a lower precision than the relative position indicators. This system is based on inductive analog signals from a series of reed switches~~spaced along a tube with a center to center distance of 3.75 inches~~.

APPLICABLE SAFETY ANALYSES

CONTROL ROD misalignment and inoperability are analyzed in the safety analysis (Ref. 3). The criteria for addressing CONTROL ROD inoperability or misalignment are that:

a. There shall be no violations of:

1. specified acceptable fuel design limits, or
2. Reactor Coolant System (RCS) pressure boundary damage; and

b. The core must remain subcritical after accident transients, except for a main steam line break (MSLB). The analysis results for a MSLB with a coincident failure of the most reactive rod to insert results in a return to criticality.