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SUBJECT: Arkansas Nuclear One - Unit 1
Docket No. 50-313
License No. DPR-51
Completion Schedule Extension for
Modifications Related to 1R9 Commitments

Gentlemen:

This letter is to inform you of revisions to the schedules for completion of two 1R9 commitments: one regarding modifications related to resolution of a certain Control Room Design Review (CRDR) Human Engineering Discrepancy (HED) and the other regarding modifications related to the ANO-1 Reactor Building Temperature Reduction Action Plan follow-up actions. This was discussed by telephone with Tom Alexion, ANO-1 NRC Project Manager by members of my staff on Friday, October 12, 1990.

The original schedules for HED resolution were provided in the ANO-1 CRDR Final Summary Report, transmitted by our letter dated August 14, 1985 (1CAN088504), as supplemented by our additional information request response dated April 29, 1986 (1CAN048607), schedule revision dated June 30, 1988 (1CAN068805), and status update dated November 22, 1989 (0CAN118914). The final safety evaluation and associated technical evaluation reports were issued by NRC letter dated February 3, 1989 (0CNA028904), and concluded that our CRDR activities were acceptable.

Specifically, modifications related to the resolution of HED QS:A1.7-1.018, involves the addition of motor operators to certain manual valves in the Decay Heat (DH) System. Final design development to support 1R9 installation was to begin in early 1990 after resources were available from the 2R7 and 1M89 outage support. Delaying initiation of this work prior to February 1990 was largely related to Design Engineering resource limitations due to extensive High Pressure Injection (HPI) system modifications resulting from the HPI check valve leakage and small-break LOCA issues. Upon beginning detailed design development to resolve this HED, unforeseen component procurement difficulties were encountered. These difficulties included the lack of

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qualified actuators for the specific valve application, the subsequent need for special castings for nonstandard valve yokes, and the unavailability of an alternate combined valves and actuators for the application. Therefore, implementation of this design modification could not be completed at 1R9. This design modification will be completed prior to startup from 1R10.

The HED concerns adding motor operators to certain valves in the DH system (DH-1A & B, BW-8A & B, shown on ANO-1 SAR Figure 9-12) which was identified during the portion of the CRDR review phase involving a survey of operator actions contained in the ANO EOPs. The CRDR process specifically evaluated the availability and suitability of equipment and controls to accomplish functional tasks required by emergency operations. This process is described in detail in the above referenced CRDR Final Summary Report.

The implementation delay for resolution for this specific HED has been evaluated and determined to be acceptable. The function of manipulating the valves for post-LOCA boron precipitation mitigation is considered a redundant function to passive design features and other mitigation methods. Although the valves addressed by this HED are considered inaccessible when using non-mechanistic accident source terms (NUREG-0737, Item II.B.2), dose rates under realistic conditions will not prevent operator actions for mitigation of boron precipitation. The planned addition of motor operators is intended to eliminate operator dose concerns for this scenario, as well as to provide the convenience of allowing remote exchange of DH loops.

The Action Plan for the ANO-1 Reactor Building Temperature Reduction issue was transmitted by our letter dated January 29, 1988 (1CAN018803), and updated by our letter dated January 25, 1990 (1CAN019016). We intend to add an additional air-cooled chiller to the Chilled Water System to increase system reliability, and an additional air handling unit which will utilize the Reactor Building (RB) Purge System duct to increase the capacity for heat removal from the RB. The additional air handling unit which is expected to be sufficient to accomplish the RB temperature reduction goal (120-125°F air temperature at 486' RB elevation) will be installed and implemented at 1R9. The additional chiller which will provide redundancy if required, will be completed by mid-1991. This modification, which is reliability based and does not directly impact RB temperature reduction, can be completed during a non-outage time period.

If you have any questions regarding this issue, please do not hesitate to contact me.

Very truly yours,

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JJF:RBT:fc

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