

September 28, 2001

OCAN090103

U. S. Nuclear Regulatory Commission  
Document Control Desk  
Mail Station OP1-17  
Washington, DC 20555

5/21/74  
9/11/78

Subject: Arkansas Nuclear One - Units 1 and 2  
Docket Nos. 50-313 and 50-368  
License Nos. DPR-51 and NPF-6  
Response to Inspection Report 01-06  
Triennial Fire Protection

Gentlemen:

The subject inspection report dated August 20, 2001, included Unresolved Item (URI) 0106-02 which states, *The acceptability of the use of manual actions in lieu of providing protection for cables associated with equipment necessary for achieving and maintaining hot shutdown (for a fire in Fire Zones 98J and 99M) for meeting 10CFR Part 50 Appendix R Section III.G.2 is an unresolved item pending further NRC review. The significance of this issue is also part of this unresolved item.*

On August 30, 2001, the Nuclear Regulatory Commission (NRC) Region IV and representatives of Arkansas Nuclear One (ANO) conducted a telephone re-exit. During that re-exit the NRC informed ANO that to comply with the separation requirements of Section III.G.2, manual actions may not be credited in lieu of providing protection for cables associated with components of redundant trains of equipment necessary for achieving and maintaining hot shutdown and that consequently, ANO is in violation of 10CFR Part 50 Appendix R *Fire Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979*. The NRC also indicated that the use of a manual action would require an approved exemption or the zone must be classified as an "Alternate Shutdown location."


The purpose of this letter is to provide information which shows that the NRC has accepted on many occasions, including at this plant, the use of manual actions to operate components of redundant trains of equipment to achieve and maintain safe shutdown in the event of a fire as complying with Section III.G.2. In brief, Section III.G.2 requires the protection of one train of redundant systems necessary to achieve and maintain hot

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shutdown. Section III.G.1 recognizes that some of the systems necessary to achieve shutdown may include emergency control stations in lieu of cables in the fire areas. There is no question that manual actions may be taken either in the control room or at emergency control stations as part of the safe shutdown process. Moreover, where manual actions have been taken at emergency control stations for redundant safe shutdown equipment, those emergency control stations are not considered "Alternate shutdown components" and Section III.L *Alternative and Dedicated Shutdown Capability* does not apply. In summary, the ANO position concerning manual actions is:

1. The use of manual actions to operate necessary components of redundant safe shutdown equipment located outside the identified fire areas is permitted by 10CFR50 Appendix R, Section III.G.1 and does not violate 10CFR50 Section III.G.2;
2. Compliance with 10CFR50 Appendix R, Section III.G.2 does not require protective features on circuits that are not required to function and, therefore, are not necessary systems required to achieve safe shutdown conditions and, regardless of fire damage cannot prevent the ability to achieve safe shutdown conditions.

Compliance  
w/ III.G.1 or  
III.G.2  
  
L.S.

The use of manual actions to achieve safe shutdown conditions in the event of a fire has been a standard practice at ANO since the inception of Appendix R.

NRC guidance provided during initial implementation and subsequent clarification of Appendix R requirements supports our interpretation on the use of manual actions. Generic industry guidance also agrees with this interpretation.

Additionally, the ANO licensing basis has been reviewed and approved by the NRC and is consistent with documented NRC guidance concerning the use of manual actions for achieving and maintaining safe shutdown conditions in the event of a fire. During the implementation phase of Appendix R, the ANO methodology for the use of manual actions was submitted for NRC review. This methodology was not addressed or challenged in subsequent correspondence or the Safety Evaluation Reports (SERs). Based on this tacit approval, the use of manual actions became a part of the ANO licensing basis.

Specifically, ANO maintains one train of systems necessary to achieve and maintain safe shutdown "free of fire damage," as required by Section III.G.1. The unprotected circuits addressed in the URI are associated circuits that interface with safe shutdown components but are not part of the systems necessary to achieve safe shutdown conditions. Acceptable manual actions outside the fire area of concern provide the necessary control of systems required for safe shutdown. Moreover, analysis has shown that these associated circuits will not inhibit the ability of ANO-1 to reach a safe shutdown condition. Therefore, ANO is in compliance with Section III.G.2 and an exemption for the use of manual actions is not required.