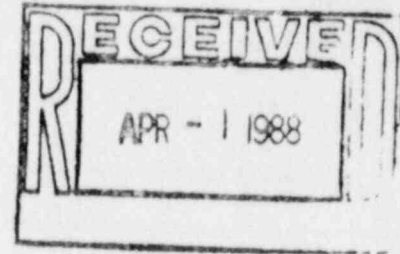




ARKANSAS POWER & LIGHT COMPANY

March 28, 1988



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Mr. L. J. Callan, Director
Division of Reactor Projects
U. S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

SUBJECT: Arkansas Nuclear One - Units 1 and 2
Docket Nos. 50-313/50-368
License No. DPR-51 and NPF-6
Additional Information for Response
To Inspection Report 313-368/87-14

Dear Mr. Callan:

Your letter of January 27, 1988 (OCNA018811), requested that supplemental information be provided to our response of November 30, 1987 (OCAN118706), for Notice of Deviation 313-368/8714-C2. Specifically, you requested additional information concerning the scope of BTP 9.5-1, Appendix A fire barriers with regard to the establishment of fire areas for Arkansas Nuclear One, Units 1 and 2.

As provided in our November 1987 response, the current designation of fire area boundaries is based on the guidance provided by the NRC in Generic Letter 83-33, "NRC Positions on Certain Requirements of Appendix R to 10CFR50." Numerous fire barriers exist at Arkansas Nuclear One for insurance purposes, life safety, zone boundaries, and area boundaries which all provide some element of separation to prevent the spread of fire. It is the fire area boundaries defined by Generic Letter 83-33 which are surveilled in accordance with the Technical Specifications for penetration fire barriers.

10CFR50, Appendix R states, "Because fire may affect safe shutdown systems and because the loss of function of systems used to mitigate the consequences of design basis accidents under postulated postfire conditions does not per se impact public safety, the need to limit fire damage to systems required to achieve and maintain safe shutdown conditions is greater than the need to limit fire damage to those systems required to

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mitigate the consequences of design basis accidents." Appendix R further states, "Both trains of equipment necessary for mitigation of consequences following design basis accidents may be damaged by a single exposure fire."

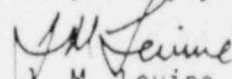
Based on this NRC guidance, Arkansas Power and Light maintains that fire protection related Technical Specifications do not address fire barriers other than those provided to protect the public health and safety.

Recent submittals by other utilities to clarify Technical Specifications consistent with this position have been reviewed and approved by the NRC. Therefore, Arkansas Power and Light will propose changes to clarify the Technical Specifications for those fire barriers required to be maintained and surveilled in accordance with this position.

To address the full scope of fire barriers discussed per telecon with Mr. D. Kubicki of the NRC on February 12, 1988, and as requested in your January 1988 letter, the "Guidelines for Specific Plant Areas" section of the August 1976 revision of BTP 9.5-1, Appendix A was utilized for comparing specific areas of Arkansas Nuclear One as described in the Fire Protection Safety Evaluation Reports (SER) for both units. The results of the comparison are provided in Attachments 1 and 2 for ANO-1 and ANO-2, respectively.

The fire barriers discussed in the attachments still exist, although they may not represent fire area boundaries and, therefore, may not be surveilled in accordance with the Technical Specifications as previously stated. However, AP&L is developing surveillance procedures to ensure that certain existing fire barriers not required to be surveilled by the Technical Specifications remain intact. The procedures will subject these barriers to periodic surveillance and will require appropriate compensatory measures if the barriers are not intact. These procedures are expected to be approved and initially performed by July 31, 1988.

Very truly yours,


J. M. Levine
Executive Director,
Nuclear Operations

JML:PLM:dm
attachment

cc: U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Fire Barriers for BTP 9.5-1, Appendix A/Fire Protection
Safety Evaluation Report (SER)

Arkansas Nuclear One - Unit 1

1. Primary and Secondary Containment

There were no penetration fire barrier requirements in BTP 9.5-1, Appendix A, for this area.

2. Control Room

BTP 9.5-1, Appendix A, indicates that the control room should be separated from other areas of the plant by floors, walls, and roofs having minimum fire resistance ratings of three hours. The control room was accepted by the NRC in the SER. It is now part of a larger fire area which includes the unit 2 control room, both unit's cable spreading room, and controlled access entry hallway. Alternate shutdown is provided for this fire area in accordance with 10CFR50, Appendix R, III.L.

3. Cable Spreading Room

See 2 above for the current configuration.

4. Plant Computer Room

The ANO-1 Plant Computer Room does not contain safety-related computers. This room is not addressed in the SER for ANO-1.

5. Switchgear Rooms

The BTP and the SER indicate that these rooms are enclosed by three-hour walls. The walls are three hour barriers; however, the north wall of the north switchgear room is not considered an area boundary under the fire area analysis performed for 10CFR50, Appendix R.

6. Remote Safety-Related Panels

This is not applicable to ANO-1.

7. Station Battery Rooms

The BTP and SER indicate that the battery rooms are separated from each other and other areas of the plant by three-hour barriers. These rooms are separated from each other by three-hour barriers and are located in separate fire areas.

8. Turbine Lubrication and Control Oil Storage and Use Areas

BTP 9.5-1, Appendix A, indicates that a blank fire wall should separate safety related systems and equipment from the turbine oil system or open head deluge protection should be provided. The ANO-1 SER indicates that the lubricating oil reservoir, conditioner, and clean and dirty lubricating oil storage tanks are located in three-hour rated enclosures, and that automatic sprinkler systems are provided for a portion of the turbine building below the operating floor and for the lubricating oil storage tanks. Fire barriers surround the lubricating oil storage areas which are also protected by automatic sprinkler systems. These barriers protect this large fire hazard but do not provide separation for safety related systems or equipment.

9. Diesel Generator Areas

BTP 9.5-1, Appendix A, indicates that the diesel generators should be separated from each other and other areas of the plant by three-hour fire barriers. The ANO-1 SER indicates that the diesel generators are separated from each other by three-hour fire-rated walls and doors. In the current configuration, the north diesel generator room floor, ceiling, walls, and doors are three-hour rated fire area boundaries. The south diesel generator room, including an access hallway, is also separated by three-hour rated floor, ceiling, walls, and access door constituting fire area boundaries.

10. Diesel Fuel Oil Storage Areas

The diesel fuel storage vaults are located underground and enclosed on all sides by three-hour rated fire walls, floor, and ceiling. Each tank is separated from other tanks by three-hour rated fire walls. This configuration was accepted as conforming to BTP 9.5-1, Appendix A, in the ANO-1 SER.

11. Safety Related Pumps

BTP-9.5-1, Appendix A, does not discuss fire barriers for this area. The SER indicates that the engineered safeguards pumps for each division are located in separated rooms which did not have three-hour rated walls. Under current configuration, the east engineered safeguards pump room is surrounded by three-hour rated walls and ceiling, providing separation from the west engineered safeguards pump room per the requirements of 10CFR50, Appendix R, III.G.

12. New Fuel Area

Fire barriers are not discussed in BTP-9.5-1, Appendix A, or the ANO-1 SER for this area.

13. Spent fuel Pool Area

Fire barriers are not discussed in BTP-9.5-1, Appendix A, or the ANO-1 SER for this area.

14. Radwaste Building

During the reviews of ANO-1 in comparison with BTP 9.5-1, Appendix A, a separate radwaste building did not exist. The recently completed low level radwaste storage building is completely separate from the plant buildings.

15. Decontamination Areas

Fire barriers are not discussed in BTP 9.5-1, Appendix A, or the ANO-1 SER for this area.

16. Safety-Related Water Tanks

Fire barriers are not discussed in BTP 9.5-1, Appendix A, or the ANO-1 SER for this area.

17. Cooling Towers

Fire barriers are not discussed in BTP 9.5-1, Appendix A, or the ANO-1 SER for this area.

18. Miscellaneous Areas

Fire barriers are not discussed in BTP 9.5-1, Appendix A, or the ANO-1 SER for this area.

Fire Barriers for BTP 9.5-1, Appendix A/Fire Protection
Safety Evaluation Report

Arkansas Nuclear One - Unit 2

1. Primary and Secondary Containment

There were no penetration fire barrier requirements in BTP 9.5-1, Appendix A, for this area.

2. Control Room

See Attachment 1.

3. Cable Spreading Room

See the discussion for the control room for the current configuration.

4. Plant Computer Room

The safety-related computers for ANO-2, Core Protection Calculators, are completely enclosed by three-hour fire walls, ceiling, floor, and door. This fire zone is in the same fire area as the control room. This equipment is currently being relocated.

5. Switchgear Rooms

The BTP and the SER indicate that these rooms are enclosed by three-hour walls. In the current configuration, the north switchgear room is enclosed in three-hour walls. The south switchgear room, including the east DC electrical equipment room and the east battery room, is enclosed by three-hour rated walls as a separate fire area.

6. Remote Safety-Related Panels

Fire barriers for this room are not discussed in BTP 9.5-1, Appendix A, nor in the ANO-2 SER.

7. Station Battery Rooms

The BTP and SER indicate that the battery rooms are separated from each other and other areas of the plant by three-hour barriers. The battery rooms are enclosed by fire barriers; however, each is part of a larger fire area enclosed by three-hour rated barriers which meets the requirements of 10CFR50, Appendix R, III.G. The west battery room and the west DC electrical equipment room comprise one fire area containing the "red" channel vital DC bus, battery bank, and inverter AC

power. The east battery room, east DC electrical equipment room, and south switchgear room comprise one fire area containing "green" channel 4160v and 480v switchgear, vital DC bus, battery bank, and inverter AC power.

8. Turbine Lubrication and Control Oil Storage and Use Areas

See Attachment 1.

9. Diesel Generator Areas

BTP 9.5-1, Appendix A, indicates that the diesel generators should be separated from each other and other areas of the plant by three-hour fire barriers. The ANO-2 SER indicates that the diesel generators are separated from each other by three-hour fire-rated walls and doors. The north diesel generator is enclosed by three-hour rated fire barriers, completely separated from the south diesel generators room. The south diesel generator room is also enclosed by three-hour barriers; however, the fire area includes the boric acid tank room as well.

10. Diesel Fuel Oil Storage Areas

See Attachment 1.

11. Safety Related Pumps

Neither BTP 9.5-1, Appendix A, nor the ANO-2 SER discuss fire barriers for the engineered safeguards pump rooms. In the current configuration, the east pump room is enclosed by three-hour rated fire barriers except that the door to the area is a watertight door administratively controlled as a fire door, completely separating redundant engineered safeguards pumps from each other, per the requirements of 10CFR50, Appendix R, III. G.

12. New Fuel Area

Fire barriers are not discussed in BTP 9.5-1, Appendix A, or the ANO-2 SER for this area.

13. Spent Fuel Pool Area

Fire barriers are not discussed in BTP 9.5-1, Appendix A, or the ANO-2 SER for this area.

14. Radwaste Building

See Attachment 1.

15. Decontamination Areas

Fire barriers are not discussed in BTP 9.5-1, Appendix A, or the ANO-2 SER for this area.

16. Safety-Related Water Tanks

Fire barriers are not discussed in BTP 9.5-1, Appendix A, or the ANO-2 SER for this area.

17. Cooling Towers

Fire barriers are not discussed in BTP 9.5-1, Appendix A, or the ANO-2 SER for this area.

18. Miscellaneous Areas

Fire barriers are not discussed in BTP 9.5-1, Appendix A, or the ANO-2 SER for this area.