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SUBJECT: Requests NRC position on encl revised TVA position paper re fire protection regulatory bases, per 910523 meeting.

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**JUN 25 1991**

U.S. Nuclear Regulatory Commission  
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Gentlemen:

In the Matter of the Application of	)	Docket No. 50-438
Tennessee Valley Authority	)	50-439

**BELLEFONTE NUCLEAR PLANT (BLN) - REVISION TO TVA POSITION REGARDING FIRE PROTECTION REGULATORY BASES (TAC #79283)**

Reference: TVA letter to NRC, dated March 26, 1991, "Transmittal of TVA Position Regarding Fire Protection Regulatory Bases (TAC #79283)"

As a result of discussions between TVA and NRC during a May 23, 1991 meeting, enclosed for staff review is the revised TVA position paper regarding fire protection regulatory bases. Information contained in the enclosure to this letter supersedes the information provided by the reference. A written staff position on the enclosure is requested by July 31, 1991.

If you have any questions, please telephone Bruce Schofield at (205) 574-8058.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

E. G. Wallace, Manager  
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Regulatory Affairs

Enclosure  
cc: See page 2

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**JUN 25 1991**

Enclosure

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## PURPOSE

The objective of the BLN fire protection program is to establish the fire prevention, detection, and suppression systems required to ensure the capability to shutdown the plant and maintain a safe shutdown condition. This is accomplished by providing the means to limit fire damage to structures, systems, or components important to safety. This document describes TVA's approach in fulfilling requirements to assure adequate fire protection at BLN. TVA requests NRC staff agreement as to the applicable fire protection requirements/guidance for BLN.

## BACKGROUND

As described in the Final Safety Analysis Report (FSAR) (Section 9.5.1) and documents referenced in the FSAR, the existing BLN fire protection program and design are based on Appendix A to NRC Branch Technical Position Auxiliary and Power Conversion Systems Branch 9.5-1 (BTP APCS 9.5-1) (1976). TVA and NRC recognize that a significant portion of the BLN fire protection design and construction effort has been completed based on this guidance and related commitments and agreements.

In 1980, the NRC issued 10 CFR 50, Appendix R to establish fire protection features required for nuclear power plants licensed to operate prior to January 1, 1979. Subsequently, Appendix R has been used as guidance for fire protection programs and capabilities for later plants, specifically, Sections III.G, III.J, and III.O.

Since 1985, the NRC has issued significant new fire protection guidance (e.g., Generic Letter 86-10). In view of this and the potential scope of the future construction/rework effort, TVA is undertaking a comprehensive review of fire protection at BLN.

## STATEMENT OF WORK

As the basis for the fire protection program at BLN, TVA will comply with the fire protection regulations contained in General Design Criterion 3 of Appendix A to 10 CFR 50 and 10 CFR 50.48(a) and (e). To demonstrate compliance with these regulations, TVA will:

- Comply with Appendix A of BTP APCS 9.5-1 (1976) as it applies to plants under construction. Alternatives or exceptions will be noted in submittals to the staff.
- Comply with Sections III.G, III.J, and III.O of Appendix R to 10 CFR 50 or provide equivalent protection.
- Comply with the National Fire Protection Association codes and other fire protection related codes indicated in the FSAR. The applicable revisions of these codes for use at BLN are listed in Section 9.5.1.1 of the FSAR. Deviations from the specific requirements in each code will be identified and justified in a documented fire protection program.

TVA understands that the NRC staff intends to use NUREG 0800 in reviewing the BLN fire protection program. In order to facilitate the NRC staff review, TVA will make a comparison of the BLN fire protection program with Revision 3 (July 1981) of Section 9.5.1 of NUREG 0800. This comparison will identify and explain differences with the regulatory guidance provided by NUREG 0800.

Finally, TVA will address the risks associated with fire as part of their overall BLN plant licensing process. This will either be done as part of the BLN IPEEE process or via a stand-alone analysis using NRC accepted methodology, such as a PRA or NUMARC FIVE.

#### **JUSTIFICATION**

The position outlined above will ensure fire protection capability to protect public health and safety. The use of the existing design basis, supplemented by compliance with Sections III.G, III.J, and III.O of Appendix R, assures continuity in design and construction and is consistent with NRC requirements as well as staff guidance and practice.