



Tennessee Valley Authority, 1101 Market Street, LP 5A, Chattanooga, Tennessee 37402-2801

November 20, 2008

10 CFR 52.79

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

In the Matter of)
Tennessee Valley Authority)

Docket No. 52-014 and 52-015

**BELLEFONTE COMBINED LICENSE APPLICATION – RESPONSE TO REQUEST FOR
ADDITIONAL INFORMATION – FIRE PROTECTION PROGRAM**

Reference: Letter from Tanya Simms (NRC) to Andrea L Sterdis (TVA), Request for
Additional Information Letter No. 128 Related to SRP Section 09.05.01 for the
Bellefonte Units 3 and 4 Combined License Application, dated October 7, 2008.

This letter provides the Tennessee Valley Authority’s (TVA) response to the Nuclear Regulatory
Commission’s (NRC) request for additional information (RAI) items included in the reference
letter.

A response to the NRC request in the subject letter is addressed in the enclosure which also
identifies any associated changes that will be made in a future revision of the BLN application.

If you should have any questions, please contact Phillip Ray, at 1101 Market Street, LP5A,
Chattanooga, Tennessee 37402-2801, by telephone at (423) 751-7030, or via email at
mray@tva.gov.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on this 20th day of Nov, 2008.

Andrea L. Sterdis
Manager, New Nuclear Licensing and Industry Affairs
Nuclear Generation Development & Construction

Enclosure
cc: See Page 2

DOBS
NRO

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cc: (Enclosures)

E. Cummins, Westinghouse
S. P. Frantz, Morgan Lewis
M. W. Gettler, FP&L
R. C. Grumbir, NuStart
P. S. Hastings, NuStart
P. Hinnenkamp, Entergy
M. C. Kray, NuStart
D. Lindgren, Westinghouse
G. D. Miller, PG&N
M. C. Nolan, Duke Energy
N. T. Simms, Duke Energy
T. Simms, NRC/HQ
G. A. Zinke, NuStart

cc: (w/o Enclosure)

B. Anderson, NRC/HQ
M. M. Comar, NRC/HQ
B. Hughes, NRC/HQ
R. G. Joshi, NRC/HQ
R. H. Kitchen, PGN
M. C. Kray, NuStart
A. M. Monroe, SCE&G
C. R. Pierce, SNC
R. Register, DOE/PM
L. Reyes, NRC/RII
✓ J. M. Sebrosky, NRC/HQ

Enclosure
TVA letter dated November 20, 2008
RAI Response

Response to NRC Request for Additional Information letter No. 128 dated October 7, 2008
(3 pages, including this list)

Subject: Fire Protection Program in the Final Safety Analysis Report

<u>RAI Number</u>	<u>Date of TVA Response</u>
09.05.01-016	This letter – see following pages

<u>Associated Additional Attachments / Enclosures</u>	<u>Pages Included</u>
None	

Enclosure
TVA letter dated November 20, 2008
RAI Response

NRC Letter Dated: October 7, 2008

NRC Review of Final Safety Analysis Report

NRC RAI NUMBER: 09.05.01-016

Acceptance Criteria: RG 1.189 Rev. 1 Section 1.7.2, 1.7.4, 1.7.5. Regulatory Guide 1.189 Rev. 1 Sections 1.72, 1.74, and 1.75 call for the fire program description to include provisions for the inspection, testing, and maintenance (ITM) of fire protection systems for the life of the plant. This program description should include fire alarm and detection systems, fire suppression systems, water supply systems, and fire pumps. The AP1000 Rev. 16 design certification application proposes installing and crediting fire sprinkler systems (NFPA 13), fire pumps (NFPA 20), and fire main (water supply) piping (NFPA 24). NFPA 25 describes the ITM requirements throughout the life of systems and components installed under NFPA 13, 20, and 24, in order to ensure proper installation, start-up testing, and post-start-up ITM of these systems. Further, NFPA 72 (Fire Alarm) contains built-in testing and maintenance requirements. Neither NFPA 25 nor NFPA 72 are specifically referenced when describing the operational testing, maintenance, and inspection program. Describe why NFPA 25 and NFPA 72 are not specifically referenced, or if you plan on referencing them in future revisions of the COL application.

BLN RAI ID: 2165

BLN RESPONSE:

The FSAR will be clarified in the next COLA revision to indicate that the guidance in NFPA 25 and 72 will be utilized to generate required procedures for the appropriate installation, testing, and maintenance of Fire Protection Systems.

This response is expected to be STANDARD for the S-COLAs.

ASSOCIATED BLN COL APPLICATION REVISIONS:

1- COLA Part 2, FSAR Chapter 9 Subsection 9.5.1.8.6 will be revised from:

9.5.1.8.6 Testing and Inspection

Testing and inspection requirements are imposed through administrative procedures. Maintenance or modifications to the fire protection system are subject to inspection for conformation to design requirements. Installation of portions of the system where performance cannot be verified through pre-operational tests, such as penetration seals, fire retardant coatings, cable routing, and fire barriers are inspected. Inspections are performed by individuals knowledgeable of fire protection design and installation requirements. Open flame or combustion-generated smoke is not used for leak testing or similar procedures such as air flow determination. Inspection and testing procedures address the identification of items to be tested or inspected, responsible organizations for the activity, acceptance criteria, documentation requirements and sign-off requirements.

To read:

9.5.1.8.6 Testing and Inspection

Testing and inspection requirements are imposed through administrative procedures. Maintenance or modifications to the fire protection system are subject to inspection for conformation to design requirements. Procedures governing the inspection, testing, and maintenance of fire protection alarm and detection systems, and water-based suppression and supply systems, utilize the guidance of NFPA 72 (DCD Reference 9.5.5.2) and NFPA 25 (Reference 212). Installation of portions of the system where performance cannot be verified through pre-operational tests, such as penetration seals, fire retardant coatings, cable routing, and fire barriers are inspected. Inspections are performed by individuals

Enclosure

TVA letter dated November 20, 2008

RAI Response

knowledgeable of fire protection design and installation requirements. Open flame or combustion-generated smoke is not used for leak testing or similar procedures such as air flow determination. Inspection and testing procedures address the identification of items to be tested or inspected, responsible organizations for the activity, acceptance criteria, documentation requirements and sign-off requirements.

2- COLA Part 2, FSAR Chapter 9, Subsection 9.5.5 will be revised to add a new Reference 212 as follows:

212. National Fire Protection Association, "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems," NFPA 25, 2008.

ASSOCIATED ATTACHMENTS/ENCLOSURES:

None