



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

August 12, 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 – AS-BUILT I&C SYSTEM CONFIGURATION**

Reference: Letter from Tanya Simms (NRC) to Andrea L. Sterdis (TVA), Request for  
Additional Information Letter No. 059 Related to SRP Section 1.0 for the  
Bellefonte Units 3 and 4 Combined License Application, dated July 1, 2008.

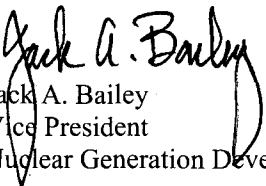
This letter provides the Tennessee Valley Authority's (TVA) response to the Nuclear Regulatory  
Commission's (NRC) request for additional information (RAI) items included in the reference letter.

A response to the NRC request in the subject letter is addressed in the enclosure which does not identify  
any associated changes to 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 [pimray@tva.gov](mailto:pimray@tva.gov).

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

Executed on this 12<sup>th</sup> day of AVG, 2008.

  
Jack A. Bailey  
Vice President  
Nuclear Generation Development

Enclosure  
cc: See Page 2

DOBS  
NRC

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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 August 12, 2008  
RAI Response

Response to NRC Request for Additional Information letter No. 059 dated July 1, 2008  
(2 Pages, including this list)

Subject: As-built I&C system configuration in the Final Safety Analysis Report

| <u>RAI Number</u> | <u>Date of TVA Response</u>       |
|-------------------|-----------------------------------|
| 01-04             | This letter – see following pages |

| <u>Attachments / Enclosures</u> | <u>Pages Included</u> |
|---------------------------------|-----------------------|
| None                            |                       |

Enclosure  
TVA letter dated August 12, 2008  
RAI Response

**NRC Letter Dated: July 1, 2008**

**NRC Review of Final Safety Analysis Report**

**NRC RAI NUMBER: 01-04**

In Section 20.7.4 of the AP1000 Final Safety Evaluation Report, "Resolution of Applicable Bulletins Issued between January 1, 1980, and December 31, 2002," Table 20.7-1 states that the COL applicant will verify the as-built I&C system configuration conforms with schematics. This is part of COL Action Item 20.7.1-1. The NRC staff has reviewed the applicant's FSAR and has not been able to locate commitment to this action item.

Please indicate where in the Bellefonte FSAR COL Action Item 20.7.1-1 is addressed.

**BLN RAI ID: 0630**

**BLN RESPONSE:**

The AP1000 DCD and BLN COLA include controls (including ITAACs) to verify the constructed plant matches the design basis. The as-built AP1000 I&C system goes through a verification and validation process to ensure as built are in accordance with design configuration. As shown in FSER Appendix F, COL Action Item 20.7.1-1, WCAP-15800 is addressed in DCD Subsection 1.9.5.5. This DCD subsection is incorporated by reference in FSAR Subsection 1.9.5.5. However, FSAR Subsection 1.9.5.5 states the "design," "procurement," "maintenance," or "surveillance" in WCAP-15800 are addressed as part of the scope of the certified design, and issues identified as "procedural" in WCAP-15800 are addressed by the procedures discussed in DCD Section 13.5. In summary, even though FSER states COL applicant will verify the as-built I&C system configuration, this responsibility has been assigned to Westinghouse by the DCD and COLA.

Westinghouse will verify I&C cabinets as-built against the design drawings during manufacturing and will functionally test each system. In addition, functionality of I&C system is verified during preoperational testing. The following ITAACs provide as-built verification of the I&C systems.

| <u>System</u>                           | <u>DCD Tier 1, Table</u> |
|---|--------------------------|
| Diverse Actuation System                | 2.5.1-4                  |
| Protection and Safety Monitoring System | 2.5.2-8                  |
| Plant Control System                    | 2.5.3-2                  |
| Data Display and Processing System      | 2.5.4-2                  |
| In-core Instrumentation System          | 2.5.5-2                  |
| Special Monitoring System               | 2.5.6-1                  |
| Seismic Monitoring System               | 2.5.9-1                  |

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

**ASSOCIATED BLN COL APPLICATION REVISIONS:**

None

**ATTACHMENTS/ENCLOSURES:**

None