



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

June 24, 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

BELLEVILLE COMBINED LICENSE APPLICATION – RESPONSE TO REQUEST FOR
ADDITIONAL INFORMATION – ELECTRICAL POWER

Reference: Letter from Tanya Simms (NRC) to Andrea L. Sterdis (TVA), Request for
Additional Information Letter No. 025 Related to SRP Section 08.01 for the
Belleville Units 3 and 4 Combined License Application, dated
May 23, 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 each NRC request in the subject letter is addressed in the enclosure and 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
pmray@tva.gov.

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

Executed on this 24th day of June, 2008


Andrea L. Sterdis

Manager, New Nuclear Licensing and Industry Affairs

Enclosure

cc: See Page 2

DOBS
MRO

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cc: (Enclosure)

M.P. Cazaubon, NuStart
R.B. Clary, SCE&G
E. Cummins, Westinghouse
S.P. Frantz, Morgan Lewis
M.W. Gettler, FP&L
R.C. Grumbir, NuStart
P.S. Hastings, NuStart
P. Hinnenkamp, Entergy
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)

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
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L. Reyes, NRC/RII
J. M. Sebrosky, NRC/HQ

Enclosure
TVA letter dated June 24, 2008
RAI Responses

Responses to NRC Request for Additional Information letter No. 025 dated May 23, 2008
(5 pages, including this list)

Subject: Electrical Power in the Final Safety Analysis Report

<u>RAI Number</u>	<u>Date of Response</u>
08.01-01	This letter – see following pages
08.01-02	This letter – see following pages

Attachments / Enclosures
None

Pages Included

Enclosure
TVA letter dated June 24, 2008
RAI Responses

NRC Letter Dated: May 23, 2008
NRC Review of Final Safety Analysis Report
NRC RAI NUMBER: 08.01-01

Please explain why the Bellefonte FSAR (including Table 8.1-201) does not reference the latest revisions of RG 1.128 and RG 1.180 with respect to the installation of large lead storage batteries and evaluation of electromagnetic and radio frequency interference in safety related instrumentation and controls. If the guidance in those RGs was not followed, please justify the approach taken.

BLN RAI ID: 0391

BLN RESPONSE:

Table 8.1-201 does not identify a revision of the listed Regulatory Guides. To determine the appropriate revision, the conformance assessments in FSAR Chapter 1, Appendix 1AA, must be consulted. The FSAR Chapter 1, Appendix 1AA, addresses the latest versions of each of these Regulatory Guides, i.e., Regulatory Guide 1.128, Revision 2, dated February 2007, and Regulatory Guide 1.180, Revision 1, dated October 2003.

For Regulatory Guide 1.128, Rev. 2, 2/07, "Installation Design and Installation of Vented Lead-Acid Storage Batteries for Nuclear Power Plants," the FSAR (Appendix 1AA) indicates "Conformance with Revision 1 of the Regulatory Guide is documented in the DCD." It is appropriate to reference the DCD for this Regulatory Guide since the information contained therein is only for design and installation, which is entirely within the scope of the DCD.

For Regulatory Guide 1.180, Rev. 1, 10/03, "Guidelines for Evaluating Electromagnetic and Radio-Frequency Interference in Safety-Related Instrumentation and Control Systems," the FSAR (Appendix 1AA) indicates "Conformance with Revision 0 of the Regulatory Guide is documented in the DCD." It was initially considered appropriate to reference the DCD for this Regulatory Guide since the information contained therein was considered as only for design and installation which is entirely within the scope of the DCD. However, upon re-review of the document, it has been determined that the guidance also indicates that "Exclusion zones should be established through administrative controls to prohibit the activation of portable EMI/RFI emitters (e.g., welders and transceivers) in areas where safety-related I&C systems have been installed." Thus, the FSAR will be revised as indicated below to indicate conformance with the guidance on establishment of these administrative controls.

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

ASSOCIATED BLN COL APPLICATION REVISIONS:

COLA Part 2, FSAR Chapter 1, Appendix 1AA, conformance statement for RG 1.180 will be revised from:

Conformance with Revision 0 of the Regulatory Guide is documented in the DCD.

Enclosure
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RAI Responses

To read:

Conformance with Revision 0 of the Regulatory Guide is documented in the DCD. Conformance of the design aspects is as stated in the DCD. Conformance with Revision 1 of this Regulatory Guide for programmatic and/or operational aspects is documented below.

General	Conforms	Exclusion zones are established through administrative controls to prohibit the activation of portable EMI/RFI emitters (e.g., welders and transceivers) in areas where safety-related I&C systems are installed.
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ATTACHMENTS/ENCLOSURES:

None

Enclosure
TVA letter dated June 24, 2008
RAI Responses

NRC Letter Dated: May 23, 2008

NRC Review of Final Safety Analysis Report

NRC RAI NUMBER: 08.01-02

SRP 8.1-02 According to Tables 8.1-201 and 1.9-202 of the FSAR, station blackout (SBO) and the associated guidelines of RG 1.155 are not applicable to Bellefonte. Please explain why no description of the procedures that will be implemented for SBO should be submitted for staff review pursuant to 10 CFR 50.63, including with respect to procedures to restore offsite power and operator training necessary to cope with SBO and with respect to severe weather guidelines established for Bellefonte. In light of the guidance in RG 1.206, C.I.8.4.1, please explain why the Bellefonte FSAR does not identify local power sources and transmission paths that could be made available to resupply power to the plant following a loss of grid or SBO.

BLN RAI ID: 0392

BLN RESPONSE:

SBO is not applicable for the AP1000 design in accordance with certified design as shown in DCD Appendix 1A. The regulatory basis of SBO relates to the availability of safety related functions supported by AC power. Since AC power is not required to support the availability of safety-related functions, the SBO guidance is not applicable and no procedures are anticipated specifically for SBO purposes. However, the AP1000 design is in conformance with the SBO guidelines as discussed in DCD Subsection 1.9.5.1.5 and DCD Subsection 1.9.4.2.2, item A-44. Since the AP1000 does not rely on safety related AC power from either offsite sources or an onsite diesel backed source, the intent of the SBO requirement is accomplished. This was noted by the NRC staff in the FSER section 8.5.2.1 which states "the AP1000 design meets the requirements of 10 CFR 50.63 for 72 hours." A description of the procedures required beyond 72 hours is provided in DCD Subsection 1.9.5.4. This was also noted by the NRC staff in the FSER section 8.5.2.1. As indicated in DCD Subsection 1.9.5.4, the resupply of power can be provided using the ancillary diesel generators or a portable, engine-driven ac generator that connects to safety-related electrical connections. Restoration of offsite power via local power sources and transmission paths is not required.

Procedures and training for recovery from design basis accident events will overlap and encompass the activities that would normally be expected for SBO in a plant that does require AC power to support the availability of safety-related functions. Thus, no procedures or training specific to SBO or Regulatory Guide 1.155 are necessary, including severe weather guidelines. The procedures and training for recovery from design basis accident events will be available for NRC review on a schedule to be provided in accordance with proposed License Condition number 6 included in Part 10 of the COLA.

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

Enclosure
TVA letter dated June 24, 2008
RAI Responses

ASSOCIATED BLN COL APPLICATION REVISIONS:

No COLA revisions have been identified associated with this response.

ATTACHMENTS/ENCLOSURES:

None