



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

February 27, 2009

10 CFR 52.80

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U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

In the Matter of)
Tennessee Valley Authority)

Docket Numbers 52-014 and 52-015

BELLEFONTE COMBINED LICENSE APPLICATION – RESPONSE TO REQUEST FOR
ADDITIONAL INFORMATION REGARDING THE ENVIRONMENTAL REVIEW OF THE
COMBINED LICENSE APPLICATION FOR BELLEFONTE NUCLEAR PLANT, UNITS 3
AND 4

Reference: Letter from Mallecia Hood (NRC) to Andrea Sterdis (TVA), Request for
Additional Information Regarding the Environmental Review of the Combined
License Application for Bellefonte Nuclear Plant, Units 3 and 4, dated January 7,
2009 [ML083470950].

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 reference letter is addressed in the enclosure, which does
not identify any associated changes to the BLN application.


If you should have any questions, please contact Thomas Spink at 1101 Market Street, LP5A,
Chattanooga, Tennessee 37402-2801, by telephone at (423) 751-7062, or via email at
tespink@tva.gov.

D085
NRO

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

Executed on this 27th day of Feb, 2009.



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

Enclosure:

Response to Environmental Report Request for Additional Information Related to
Consideration of Bellefonte Units 1 and 2 as a Potential Generating Option

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cc: (with Enclosure)
M. A. Hood, NRC/HQ

cc: (w/o Enclosures)
S. P. Frantz, Morgan Lewis
M. W. Gettler, FP&L
R. C. Grumbir, NuStart
P. S. Hastings, NuStart
P. Hinnenkamp, Entergy
P. H. Kitchen, PGN
M. C. Kray, NuStart
R. H. Kitchen, PGN
A. M. Monroe, SCE&G
C. R. Pierce, SNC
L. Reyes, NRC/RII
R. F. Smith-Kevern, DOE/HQ
G. A. Zinke, NuStart

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cc: (w/o Enclosure):

G. P. Arent, EQB 1A-WBN

A. S. Bhatnagar, LP 6A-C

C. L. Hamill

A. L. Sterdis, LP 5A-C

S. A. Vance, WT 6A-K

E. J. Viglucci, WT 6A-K

EDMS, WT CA-K

ENCLOSURE
RESPONSE TO ENVIRONMENTAL REPORT REQUEST FOR ADDITIONAL INFORMATION
RELATED TO CONSIDERATION OF BELLEFONTE UNITS 1 AND 2
AS A POTENTIAL GENERATING OPTION

**RESPONSE TO ENVIRONMENTAL REPORT
REQUEST FOR ADDITIONAL INFORMATION
RELATED TO CONSIDERATION OF
BELLEFONTE UNITS 1 AND 2
AS A POTENTIAL GENERATING OPTION**

TVA Letter Dated: February 27, 2009

Response to Environmental Report Request for Additional Information Related to
Consideration of Bellefonte Units 1 and 2 as a Potential Generating Option

NRC Review of the BLN Environmental Report

NRC Environmental Category: SOCIOECONOMIC IMPACTS

NRC RAI NUMBER: 4.4-1

Question Summary (RAI)

What impact, if any, will TVA's decision to reconsider Units 1 & 2 have on the proposed schedule for Units 3 & 4. Have the dates for start of construction and operation changed?

Full Text (supporting information):

The ER provides a temporal distribution of construction workers in Figure 4.4-2. Considering recent developments related to the re-evaluation of Units 1 and 2, will there be any specific changes to these workforce assumptions and schedule as described in Figure 4.4-2?

BLN RESPONSE:

TVA's decision to reconsider the viability of completing Bellefonte Units 1 and 2 as a potential generating alternative has not resulted in any change to the Bellefonte Units 3 and 4 schedule or workforce assumptions.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION TEXT CHANGES:

None

ATTACHMENTS:

None

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Response to Environmental Report Request for Additional Information Related to
Consideration of Bellefonte Units 1 and 2 as a Potential Generating Option

NRC Review of the BLN Environmental Report

NRC Environmental Category: SOCIOECONOMIC IMPACTS

NRC RAI NUMBER: 5.8.2-3

Question Summary (RAI)

Provide updated information on in-lieu of tax revenue impacts for Chapters 4 and 5

Full Text (supporting information):

The in-lieu-of-tax revenue impacts described in Chapters 4 and 5 are based on depreciation values for Units 1 & 2 with a presumption that these units would not be completed. Please describe how this property valuation would be altered, if at all, by the potential licensing change in status of Units 1 and 2. Also, please clarify TVA's decision(s) regarding depreciation of Units 1 and 2 and its relationship to TVA's proposal to build Units 3 & 4, i.e., explain whether the decision to depreciate (or not) Units 1 & 2 should be considered a "baseline" decision or a project-related decision.

BLN RESPONSE:

Under section 13 of the TVA Act, TVA in-lieu-of-tax payments are five percent of its gross power proceeds derived from the sale of power for the preceding fiscal year, excluding power used by TVA or sold or delivered to any other department or agency of the United States for any purpose other than resale.

Fifty percent of this amount is distributed to the states and local governments in which the power operations of TVA are carried on and in which TVA has acquired properties previously subject to state and local taxation. This allocation of this fifty percent is based upon the book value of the property held by TVA in a state. Accordingly, as the value of Bellefonte Units 1 and 2 is impaired in the accounting sense or as the value of Bellefonte Units 1 and 2 is amortized, the book value of Bellefonte Units 1 and 2 decreases and, along with it, the payments in-lieu-of-taxes TVA makes to Alabama.

TVA's decisions to account for the cost of Bellefonte Units 1 and 2 in a particular manner are informed by the decisions TVA makes with respect to the completion of the facility. Bellefonte Units 1 and 2 were deferred in 1988 and 1985, respectively. At the end of 2001 the TVA Board determined that portions of Bellefonte Unit 1 and Unit 2 were impaired in the accounting sense. These units were identified as assets for which the estimated cash flows expected to be provided through future rates were less than recorded book values. As a result, TVA revalued Bellefonte Unit 1 and Unit 2 downward by \$700 million and recognized an impairment loss. In July 2005, the TVA Board approved the amortization of TVA's remaining investment in Bellefonte Units 1 and 2 over a 10-year period beginning in 2006. In November 2005, the TVA Board of Directors approved the cancellation of Bellefonte Units 1 and 2.

While in September 2006, the NRC approved TVA's request to terminate the construction permits for the unfinished Bellefonte Units 1 and 2, TVA submitted a request to the NRC on August 26, 2008, for the reinstatement of Construction Permits CPPR-122 (Unit 1) and CPPR-123 (Unit 2). Upon reinstatement, TVA committed to maintain the units in the same deferred status as when TVA elected to withdraw the Construction Permits and to resume preservation and maintenance activities as appropriate under NRC regulations and the NRC's Deferred Plant Policy. This is the only "licensing change in status of Units 1 and 2" that TVA is currently seeking. Because reinstatement of the Construction Permits is only one of several steps necessary to determine whether TVA should complete Units 1 and 2, reinstatement by itself will not likely result in any alteration of the current property valuation. Should TVA decide to complete

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Consideration of Bellefonte Units 1 and 2 as a Potential Generating Option

Bellefonte Units 1 and 2, the decision to continue to amortize the cost of these units would likely be reconsidered. The result of this decision, along with any future construction, would affect (and likely increase) the book value of the units and TVA's in-lieu of tax payments to Alabama.

Regarding TVA's decision(s) about depreciation of Units 1 and 2 and any relationship to TVA's proposal to build Units 3 and 4, TVA's decision to amortize Bellefonte Units 1 and 2 was independent of the proposal to license Units 3 and 4. TVA has not yet made a decision to build any new capacity at the Bellefonte site.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION TEXT CHANGES:

None

ATTACHMENTS:

None

TVA Letter Dated: February 27, 2009

Response to Environmental Report Request for Additional Information Related to
Consideration of Bellefonte Units 1 and 2 as a Potential Generating Option**NRC Review of the BLN Environmental Report****NRC Environmental Category: SOCIOECONOMIC IMPACTS****NRC RAI NUMBER: 5.8.2-4**Question Summary (RAI)

Please provide an estimate of the additional in-lieu-of-taxes TVA's expects to owe from the sale of electricity generated at Units 3 & 4 on an annual basis (i.e., increment to its total payment for all of the TVA region).

Full Text (supporting information):

We understand that the allocation of these monies to the states and hence the counties depends on a number of factors, but please provide an estimate of what the "5 percent of energy sales less sales to government" is expected to be on an annual basis from each unit.

BLN RESPONSE:

The estimated contribution of Bellefonte Units 3 and 4 to In-Lieu-of-tax payments is provided below.

Bellefonte Units 3 and 4
Estimated Contribution to In-Lieu-of-Tax Payments^{a,b}
Fiscal Years 2019 - 2023
(In Millions)

	2019	2020	2021	2022	2023	5-Yr Total
Unit 3	\$19.2	\$22.5	\$25.9	\$25.8	\$25.9	\$119.3
Unit 4	-	\$22.5	\$25.9	\$25.8	\$25.9	\$100.1
Total	\$19.2	\$45.0	\$51.8	\$51.6	\$51.8	\$219.4

Notes:

- a. Indicates the estimated amount to be distributed to all states, not only within Alabama.
- b. Calculation assumes that energy sales increase equal to electricity generated by the units.

Assumptions:

TVA will own 100% of BLN Units 3 & 4.

Based on August 2008 Power Supply Plan.

Used weighted average of estimated MUNI/Coop and Industrial Revenue/kWh.

This calculation does not include Fuel Cost Adjustment.

This response is PLANT-SPECIFIC.

Enclosure

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Response to Environmental Report Request for Additional Information Related to
Consideration of Bellefonte Units 1 and 2 as a Potential Generating Option

ASSOCIATED BLN COL APPLICATION TEXT CHANGES:

None

ATTACHMENTS:

None

TVA Letter Dated: February 27, 2009

Response to Environmental Report Request for Additional Information Related to
Consideration of Bellefonte Units 1 and 2 as a Potential Generating Option

NRC Review of the BLN Environmental Report

NRC Environmental Category: ALTERNATIVES

NRC RAI NUMBER: 9.2-3

Question Summary (RAI)

Please provide an updated and more detailed description of all current and planned activities taking place on the site related to Unit 1 and 2's "re-evaluation" and maintenance.

Full Text (supporting information):

The revised ER states that if the construction permits for Bellefonte Units 1 and 2, are reinstated, the plants will be held in a deferred status, TVA anticipates conducting minor refurbishment of the Construction Administration Building (CAB), as well as reinstituting certain preventive maintenance, testing, and monitoring activities at the site. Considering that during the environmental site audit (spring 2008), there were only a few personnel on site, additional information is needed regarding the number of anticipated staff required on site to carry out these activities. In addition to staff required for "re-evaluation" activities, will there be additional maintenance staff onsite? Please describe the number of workers/staff onsite, the activities taking place related to re-evaluation and maintenance onsite, as well as an estimate of the schedule for these activities.

BLN RESPONSE:

Maintenance staff is expected to number 7 to 10 workers. The number of workers on-site, including the maintenance staff, is approximately 25. Activities include site cleanup and system walkdowns. Re-evaluation activities may require an additional 40 to 50 workers on-site for a period of up to two years. These re-evaluation activities for Units 1 and 2 are expected to be completed prior to issuance of the COL for Units 3 and 4 and, therefore, the workforce associated with those activities will not have any effect upon the environmental evaluation of Units 3 and 4.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION TEXT CHANGES:

None

ATTACHMENTS:

None

TVA Letter Dated: February 27, 2009

Response to Environmental Report Request for Additional Information Related to
Consideration of Bellefonte Units 1 and 2 as a Potential Generating Option

NRC Review of the BLN Environmental Report**NRC Environmental Category: ALTERNATIVES****NRC RAI NUMBER: 9.2-4**Question Summary (RAI)

Please provide information regarding the level of effort required and a description of the types of activities that would be required to complete Unit 1, Unit 2, or both Units 1 and 2, and the associated environmental and health impacts from these activities. Please include the associated environmental and health impacts that would be expected from the operation of these Units. The environmental and health impacts should be discussed at a summary/reconnaissance-level and should include impacts to land-use, air quality, water use and quality, ecology, socioeconomics, human health, and historic and cultural resources. There should also be a brief discussion of the waste management activities involved with construction and operation of Units 1 and 2. [The level of detail expected would not exceed that which could be readily acquired from TVA's experience completing other reactors whose construction was deferred for prolonged periods of time, such as the recently completed units on the Browns Ferry and Watts Bar sites].

If TVA has determined that this option is not feasible and/or competitive with the proposed project, please provide a discussion of the reasons for this conclusion (appropriately referenced).

Full Text (supporting information):

Within TVA's Environmental Review in support of the COL for Units 3 and 4, the construction license to complete Units 1 & 2 had been withdrawn and, at the time, TVA had no plans to complete these units, however, since this time TVA has indicated [see August 26, 2008 letter "TVA BLN Units 1 and 2 – Request to Reinstate Construction Permits CPPR-122 (Unit 1) and CPPR-123 (Unit 2)," and October 3 – Additional Information Regarding Consideration of Bellefonte Units 1 and 2 as potential power generation alternative in the applicant's environment report] that TVA is re-evaluating this decision based on changing market conditions, particularly related to significant price increases in key construction commodities such as concrete and steel. On August 26, 2008, TVA formally requested that NRC reinstate its Construction Permits (CPPR-122 and CPPR-123) for Units 1 and 2. This request is currently being considered by the NRC.

The new information provided by TVA suggests that Units 1 and 2 could provide TVA baseload generation and therefore could potentially be considered a baseload alternative to the proposed construction and operation of Units 3 and 4 on the BLN site. As guided by NUREG-1555, the staff must assess alternatives that are both feasible and competitive for supplying electrical generating capacity proposed in the application (i.e., 2234 MW).

BLN RESPONSE:

Assuming the Bellefonte Unit 1 and 2 construction permits are reinstated, TVA anticipates initiating an environmental impact statement (EIS) level review later this year. This will help inform TVA decision makers and the public about the potential for environmental impacts associated with a decision to complete and operate Bellefonte Units 1 and 2, or a decision to construct and operate Bellefonte Units 3 and 4. TVA's EIS process will also provide NRC with the information necessary to complete its environmental evaluation of Bellefonte Units 3 and 4 relative to Units 1 and 2 as an alternative. However, it must be noted that while the environmental impacts, cost, and licensing risks associated with the construction and operation of Units 3 & 4 are already being considered and addressed as part of the COL

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Consideration of Bellefonte Units 1 and 2 as a Potential Generating Option

Application process, such factors will also be fully evaluated by TVA in connection with the potential completion and operation of Bellefonte Units 1 & 2 before TVA can reasonably identify a preferred alternative. Our EIS approach is designed to inform TVA's decision makers on either option. At this time, TVA has not committed to build any additional generating capacity at the Bellefonte site. Because TVA is a federal agency with its own NEPA responsibilities, it must itself assess the impacts of completing Units 1 & 2 or constructing Units 3 & 4 under NEPA. The TVA EIS process is a necessary step forward to making a decision.

This response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION TEXT CHANGES:

None

ATTACHMENTS:

None