

**UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION**

**ATOMIC SAFETY AND LICENSING BOARD PANEL  
BEFORE THE LICENSING BOARD**

|                                |   |                              |
|--------------------------------|---|------------------------------|
| _____                          | ) |                              |
| In the Matter of               | ) |                              |
| Tennessee Valley Authority     | ) | Docket Nos. 52-014, 52-015   |
| Bellefonte Nuclear Power Plant | ) | ASLBP No. 08-864-02-COL-BD01 |
| Units 3 and 4                  | ) | October 2, 2008              |
| _____                          | ) |                              |

**INTERVENORS' ANSWER OPPOSING  
TVA'S MOTION FOR CLARIFICATION**

Pursuant to 10 CFR § 2.323(c), the Blue Ridge Environmental Defense League with its chapter Bellefonte Efficiency and Sustainability Team and the Southern Alliance for Clean Energy ("Joint Intervenors") hereby submit their answer in opposition to the motion filed by Tennessee Valley Authority on September 22<sup>nd</sup>.

**Background**

On June 6, 2008, the Joint Intervenors submitted a petition to intervene ("Petition"). On September 12, 2008, the Atomic Safety and Licensing Board issued Memorandum and Order LBP-08-16 ("ASLB Order") which admitted four contentions. On September 22<sup>nd</sup>, TVA submitted Applicant's Motion for Clarification ("TVA Motion"). On October 2<sup>nd</sup>, NRC Staff submitted their Response to the Applicant's Motion for Clarification ("NRC Response"). TVA's Motion requested that the Board

clarify the scope of two of the Joint Intervenors' admitted contentions, NEPA-B and NEPA-N, recast as follows by the Board:

NEPA-B: IMPACTS ON AQUATIC RESOURCES INCLUDING FISH, BENTHIC INVERTEBRATES, AND GENERAL AQUATIC COMMUNITY STRUCTURE OF THE PROJECT AREA AND GUNTERSVILLE RESERVOIR and NEPA-N: ENVIRONMENTAL REPORT'S INADEQUATE COST ESTIMATES AND COST COMPARISONS. CONTENTION: The ER does not adequately address the adverse impacts of operating two additional nuclear reactors on the fishery and aquatic resources of the Guntersville Reservoir and the vicinity of Bellefonte Nuclear Plant. In particular, the ER does not provide adequate data to sufficiently address the condition of resident and potamodromous fish and freshwater mussels in the vicinity of the proposed intake point, Town Creek, and Guntersville Reservoir and the cumulative impacts on the aquatic resources in these areas from operation of the proposed new intake.

NEPA-N: ENVIRONMENTAL REPORT'S INADEQUATE COST ESTIMATES AND COST COMPARISONS. CONTENTION: TVA's cost comparison is inadequate to satisfy the National Environmental Policy Act ("NEPA") or NRC regulations at 10 C.F.R. § 51.45(c) because it fails to provide reasonably up-to-date and accurate information regarding the estimated electrical generation costs of the proposed new nuclear power plant.

**Discussion**

Joint Intervenors will address TVA's Motion and NRC's Response in two parts, reflective of the admitted Contentions NEPA-B and NEPA-N.

NEPA-B

Joint Intervenors object to the Applicant's and the NRC staff's opinion that "there is uncertainty regarding the scope of the admitted contention." NRC Staff Response at 2.

Further, Joint Intervenors disagree with the NRC staff's opinion that:

The second sentence of Contention NEPA-B seems to narrow the scope of the first sentence to the "impacts on the aquatic resources in these area from operation of the proposed new intake."

NRC Staff Response at 2. In Joint Intervenors June 6, 2008 petition, the following was stated:

The ER does not adequately address the adverse impacts of operating two additional nuclear reactors on the fishery and aquatic resources of the Tennessee Riverbasin, Guntersville Reservoir, and the vicinity of Bellefonte Nuclear Plant. In particular, the ER does not provide adequate data to sufficiently address: (1) The condition of resident and potadromous fish and freshwater mussels in the vicinity of the proposed intake and discharge points, Town Creek, Guntersville Reservoir, and Tennessee River basin; (2) Aquatic habitat conditions and flow/habitat relationships in both the project area, as well as in the lower-, middle -, and upper - Tennessee River; and (3) Cumulative impacts on aquatic resources from construction and operation of the proposed new intake and discharge.

Petition at 38-39. The proposed intake structures and the impacts from them are only one aspect of the impacts from operating two additional reactors of the fishery and aquatic resources of the Tennessee River basin. Proposed intake and discharge points are specifically mentioned along with the impacts on several water systems: the Tennessee River (lower, middle, and upper), Town Creek, Guntersville Reservoir, and the Tennessee River basin. Further, the Joint Intervenors stated:

Finally, the ER does not identify and analyze direct or cumulative impacts on aquatic species resulting from effluent discharges to the Tennessee River, Guntersville Reservoir, or Town Creek. No data on temporal or spatial distribution of ichthyoplankton and the drift community in the

vicinity of the discharge structure and thermal plume was presented or available to evaluate potential impacts. Further, a molluskicide will be used as a water treatment chemical and will be discharged into mussel habitat yet the ER does not mention its effects on freshwater mussel or what concentration will be in the discharge plume(s). ER § 5.2.2.2.1.

Petition at 44-45. Further, the Board's Order enumerated the points stated in the Petition, which included a statement that TVA's Environmental Report is insufficient because it:

(3) fails to assess the impacts of Bellefonte facility operations on aquatic resources in the area given the thirty-percent plus decline in local species since 1994 identified in the ER;

ASLB Order at 37. This statement is not specific to the intake structure alone. The Board also states that the proposed Bellefonte facility does not yet have a National Pollutant Discharge Elimination System (NPDES) permit for its water intake system.

ASLB Order at 40. An NPDES permit affects not only water intakes but also discharges to lakes and streams. Therefore Joint Intervenors believe it would be incorrect to narrow NEPA-B to impacts from the operation on aquatic resources solely to the proposed new intake structure.

#### NEPA-N

The only purpose for requiring license applicants to perform cost-benefit analyses is to compare nuclear powered electric generators to other technologies. The admitted Contention NEPA-N states "TVA's cost *comparison* is inadequate..." (emphasis added) ASLB Order at Appendix A. TVA incorrectly asserts that "this contention pertains to the *cost-benefit* analysis in Section 10.4 of the Environmental Report." (emphasis added) TVA Motion at 3. The Board's order does not limit the contention to cost-benefit—that is, the costs and benefits of a nuclear plant—as TVA posits in its motion to clarify.

Although the Board does make reference to Section 10.4 of the Bellefonte Environmental Report (Benefit-Cost Balance), further reading of the Order finds a reference to Environmental Report Section 9.2.3.3 (Combination of Alternatives). ASLB Order at 67-68.

The Petition at 84 (regarding Contention NEPA-N) refers to the economic comparison of alternatives in ER Section 9.3.3.3 which states:

A recent study of the overall costs of generation of electricity gave costs of \$0.0266/kWh for nuclear, \$0.0328/kWh for coal, and \$0.0353/kWh for natural gas. Solar ranges from \$0.09/kWh to \$0.23/kWh, and wind from \$0.03/kWh to \$0.05/kWh, although as discussed, there is no area within the TVA range capable of enough wind to equal the generation of the BLN project. To support timely decision making, TVA updates such information as there are changes in market conditions or technological costs.

ER at 9.2-38. As stated in the Petition, TVA's Environmental Report is internally contradictory: costs of nuclear energy in Chapter 10 are presented at \$0.036 to \$0.083 per kWh (Table 10.4-3); these figures differ significantly from costs of nuclear presented in Chapter 9 *infra*. Joint Petitioners are critical of TVA's cost estimates because comparisons of alternatives means of generating electric power depend on the accuracy of these data. Contention NEPA-N as admitted by the judges has successfully raised this issue.

The Petition and the Board's Order indicate that the contention relies on ER financial data in both Chapters 9 and 10. Therefore, ER Section 9—Alternatives to the Proposed Action—as well as ER Section 10—Environmental Consequences of the Proposed Action—are necessary for an adequate comparison as required by the National Environmental Policy Act and NRC regulations at 10 CFR § 51.45. Joint Intervenors

submit that eliminating a cost comparison of energy alternatives under the guise of clarification would cut the heart out of Contention NEPA-N.

## **CONCLUSION**

TVA's request for clarification is a specious attempt to limit the scope of the contentions proffered by the Joint Intervenors and admitted by the Board. As such, Joint Intervenors believe it is an improper attempt to second-guess the judges' orders in this matter. Joint Intervenors respectfully request that the ASLP not limit the scope of the Admitted Contentions NEPA-B and NEPA-N.

Respectfully submitted,

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October 2, 2008

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**CERTIFICATE OF SERVICE**

I hereby certify that copies of the INTERVENORS' ANSWER OPPOSING TVA'S MOTION FOR CLARIFICATION were served this day on the following persons via Electronic Information Exchange.

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October 2, 2008