



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IV

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Chief, Rules Review and Directives Branch  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

SUBJECT: Draft Report for comment of the Final Environmental Statement related to the operation of Watts Bar Nuclear Plant Units 1 and 2, Supplement 1

Dear Sir or Madam:

We have reviewed the subject document in accordance with Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. The Tennessee Valley Authority (TVA) has applied for an operating license for the Watts Bar Nuclear (WBN) Plant. This supplement updates NRC's Final Environmental Statement (FES) on WBN Plant, written in 1978. We assume this supplement is equivalent to a Draft Environmental Impact Statement Supplement, as described in Council on Environmental Quality NEPA regulations.

The supplement uses International System (SI, or Systeme International) units such as sieverts and becquerels, with non-SI units such as rems and curies shown in parentheses. We recommend that NRC use only non-SI units (with perhaps a conversion chart in an appendix) most importantly because all current regulations (NRC's, EPA's, and the State's) are in non-SI units. But also because the SI units are confusing, not compatible with the non-SI units, and the public is not likely to be familiar with them.

The supplement does not address the purpose and need of the proposed action. Presumably the need for the project was described in the FES and was a perceived future demand for electricity. How has this need changed in the past sixteen years? What is TVA's long-term strategy for meeting electrical demand in its service area? Does it include innovative demand-side management strategies (utility-influenced reduced power consumption by consumers)? The supplement refers to TVA's Integrated Resource Planning process. The Final supplement would benefit from a brief description of this process. The document should also contain a clearer description of project purpose and need.

In such a large project, there should be numerous opportunities for pollution prevention. Have waste minimization and water and energy conservation measures been

designed into all plant operations - including maintenance, landscaping, training and office facilities, as well as the more obvious Plant functions? The Final supplement should include a description of planned and ongoing pollution prevention efforts.

Page 1-1, lines 35-36: Construction delays are given as the reason for the ten to fifteen year delay in operation of WBN Plant. Other reasons such as employee concerns, mission changes, and the shutdown in 1985 of the K-25 Gaseous Diffusion Plant in Oak Ridge may have been more the reason for the long years of delay, not just construction problems or retrofits.

Page 2-25, lines 25-31: The supplement does not describe, in the pre-operational radiation background conditions, sediment and channel radioactive contamination in the Watts Bar Reservoir upstream from the Watts Bar Dam. TVA, the Department of Energy at Oak Ridge, and EPA have been investigating the cesium and mercury contamination in and around the Watts Bar Reservoir from the Clinch River down to the Watts Bar Dam. Most of the contamination is in the deep channels as far south as the Watts Bar Dam. The Final supplement should include a description of this contamination as a pre-operational background condition.

Page 5-5, lines 22-23: What herbicides are used in clearing of transmission line rights-of-way? Are other pesticides used? Has TVA's maintenance procedure changed over the last fifteen years? The Final supplement should contain a brief description of TVA transmission line maintenance procedures.

Page 5-6, lines 25-29: The Biological Assessment should be included in the Final supplement.

Page 5-11, lines 7-17: It is assumed here and later in the text that waste evaporators are not used to reduce the offsite low-level waste shipments. Is this true for Sequoyah, Browns Ferry, and other pressurized water reactors nationwide?

Page 5-17, lines 26-27: What is the basis for the 4-year timeframe for potential onsite low-level waste storage? Based on expected future low-level waste disposal siting delays, should there be contingencies for at least 10 years?

Page 5-20, lines 1-6: Will WBN Plant be able to use current or future dry cask storage at other TVA Nuclear Plant Sites as an alternative to building their own?

Page 5-24, line 36. While it is true that there are no Federal regulations for public noise level exposures, there are many guidelines and recommended levels. A summary of EPA guidelines for public health and welfare is attached. In

Page Three

general, the threshold level for outdoor activity interference and annoyance is 55 decibels (dBA). The Department of Housing and Urban Development has noise guidelines for residential areas: acceptable if the day-night sound level is less than 65 dBA; normally unacceptable if greater than 65 dBA and less than 75 dBA; and unacceptable if greater than 75 dBA. Are there residents close to WBN Plant who could be affected by elevated noise levels? If so, noise levels at these residences should be predicted, and mitigation proposed, if necessary. Are there any provisions for notification of the surrounding communities of upcoming large noise events (e.g., steam venting)?

Page 6-4, lines 17-19: It is stated here that the State will be monitoring radiation around the site pre-operationally and during operation. Will this be just thermoluminescent dosimeters? Are there any plans for installing pressurized ionization chambers similar to Alabama and Illinois? Also, are the locations based on wind rose, populations, or both?

Page 7-16, lines 13-32: Are there any requirements or other mechanisms in place to ensure WBN implements these improvements or enhancements for safety? Are there any schedule commitments?

Page 8-2, section 8.4: What effects will the recently proposed rule on radiological criteria for decommissioning of NRC-licensed nuclear facilities have on WBN Plant? Will NEPA documentation be prepared on decommissioning, following submission of the "Supplement to Applicant's Environmental Report" (Page 8-3, line 22)?

Based on our comments, we rate this Draft supplement "EC-2." That is, we have environmental concerns about the project and more information is needed to fully assess the impacts. If you have any questions about our review, you may contact Marion Hopkins of my staff at 404/347-3776.

Sincerely,



Heinz J. Mueller, Chief  
Environmental Policy Section

Attachment