

June 20, 2008

Mr. Ashok Bhatnagar  
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6A Lookout Place  
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SUBJECT: WATTS BAR NUCLEAR PLANT, UNIT 2 – ENVIRONMENTAL ASSESSMENT  
AND FINDING OF NO SIGNIFICANT IMPACT FOR EXTENSION OF  
CONSTRUCTION PERMIT (TAC NO. MD8389)

Dear Mr. Bhatnagar:

Enclosed is a copy of an “Environmental Assessment and Finding of No Significant Impact” related to your May 8, 2008, request for an extension of the latest construction completion date for Construction Permit No. CPPR-92 to March 31, 2013. The May 8, 2008, letter superseded an earlier letter dated March 6, 2008. This assessment is being forwarded to the Office of the Federal Register for publication.

I can be reached at 301-415-1470 or at [joseph.williams@nrc.gov](mailto:joseph.williams@nrc.gov) if you have questions regarding this matter.

Sincerely,

**/RA/**

Joseph F. Williams, Senior Project Manager  
Watts Bar Special Projects Branch  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-391

Enclosure: As stated

cc: w/enclosure: See next page

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DATE	6 / 19 /08	6 / 18 /08	6/18/08	06 / 18 /08	6 / 20 /08

OFFICIAL RECORD COPY

UNITED STATES NUCLEAR REGULATORY COMMISSIONTENNESSEE VALLEY AUTHORITYDOCKET NO 50-391WATTS BAR NUCLEAR PLANT, UNIT 2ENVIRONMENTAL ASSESSMENT AND FINDING OFNO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (NRC) is considering extending the latest construction completion date specified in Construction Permit No. CPPR-92 issued to Tennessee Valley Authority (permittee, TVA) for the Watts Bar Nuclear Plant (WBN), Unit 2. The facility is located at the permittee's site on the west branch of the Tennessee River approximately 50 miles northeast of Chattanooga, Tennessee.

ENVIRONMENTAL ASSESSMENTIdentification of Proposed Action:

The proposed action would extend the latest construction completion date of Construction Permit No. CPPR-92 from December 31, 2010 to March 31, 2013. The proposed action is in response to the permittee's request dated May 8, 2008. This request superseded an earlier letter dated March 6, 2008.

The proposed extension will not allow any work to be performed that is not already allowed by the existing construction permit. The extension will merely grant the permittee more time to complete construction in accordance with the previously approved construction permit.

The Need for the Proposed Action:

The proposed action is needed to give the permittee adequate time to complete construction of WBN Unit 2. In a July 14, 2000, letter, TVA confirmed that WBN Unit 2 met the NRC's definition of a deferred plant, as described in Generic Letter 87-15, "Policy Statement on Deferred Plants." Subsequently, on August 3, 2007, TVA informed the Commission of its intent

to complete construction and licensing of WBN Unit 2 by April 1, 2012; this letter was submitted in accordance with the Policy Statement on Deferred Plants. TVA provided information requested by the Policy Statement, and also informed the Commission that it would resume construction activities no sooner than December 3, 2007. These activities are within the scope of the existing construction permit, which expires December 31, 2010.

Environmental Impacts of the Proposed Action:

The environmental impacts associated with the construction of the facility have been previously discussed and evaluated in TVA's Final Environmental Statement for construction (FES-CP) of WBN, Units 1 and 2, issued on November 9, 1972. NRC staff evaluated the environmental impacts of construction and operation of this plant, issuing comments on TVA's FES-CP as part of its review. In December 1978, NRC staff issued NUREG-0498, "Final Environmental Statement Related to Operation of Watts Bar Nuclear Plant Units 1 and 2," for the operating-license stage (FES-OL), addressing environmental impacts of construction activities not addressed previously in TVA's FES-CP. The activities included: (1) construction of the transmission route for the Watts Bar - Volunteer 500 kV line, (2) construction of the settling pond for siltation control for construction runoff at a different location from that originally proposed in the FES-CP, and (3) the relocation of the blowdown diffuser from the originally proposed site indicated in the FES-CP. The staff addressed the terrestrial and aquatic environmental impacts in the FES-OL, as well as historic and archeological impacts, and concluded that the assessment presented in the FES-CP remains valid.

NUREG-0498, Supplement 1 was issued in April 1995. Environmental issues evaluated included changes to regional demography, natural resource use, meteorology, ecology, impacts to humans and the environment, severe accident mitigation design alternatives, and socioeconomic impacts, including environmental justice issues. The staff concluded that there were no significant changes to the environmental impacts discussed in the 1978 FES-OL due to changes in plant design or operation, or changes in the environment. Furthermore, the staff

concluded that no additional impacts not previously discussed in the NRC's 1978 FES-OL related to construction of Unit 2 were expected.

On February 15, 2008, TVA submitted "Watts Bar Nuclear Plant (WBN) – Unit 2 – Final Supplemental Environmental Impact Statement [FSEIS] For the Completion and Operation of Unit 2," to the NRC. This FSEIS was completed in June 2007, and was submitted in support of TVA's operating license application for WBN Unit 2. It also includes TVA's evaluation of the environmental impacts of construction.

The licensee has no plans to construct additional transmission lines or disturb any land not discussed in previous environmental reviews. Impacts on the Federal threatened and endangered species list issued by the Fish and Wildlife Service were evaluated in previous NRC environmental reviews. No additional impacts are expected.

Completed construction of WBN Unit 2 includes major structures such as the containment, turbine building, control building, and equipment such as the reactor pressure vessel, reactor coolant system piping, and steam generators. Installation of equipment shared with WBN Unit 1, such as diesel generators, was completed prior to issuance of the Unit 1 operating license in 1996. The majority of construction activities will take place within structures already completed. Therefore, most of the construction impacts discussed in the FES have already occurred. As discussed in TVA's FSEIS, additional onsite construction environmental impacts will be small, mitigated by use of good construction practices.

Socioeconomic impacts are similar to those previously evaluated by the NRC. As construction proceeds, workers moving to the area will increase demand for services such as schools and recreational facilities. In its June 2007 FSEIS, in anticipation of a decision to resume construction, TVA stated that it "...would designate certain counties as impacted by the construction process. This [designation] would make them eligible for a supplemental allocation from TVA's annual tax equivalent payment under Tennessee law. These funds could be used

by counties to address impacts on county services.” These payments mitigate the effects of new workers living in the area.

The requested extension of the construction permit only extends the period of construction as described in the FES, and does not involve any different impacts as described and analyzed in the original and updated environmental impact statements. The cumulative impacts of the extended construction period are small, and mitigated, as discussed above.

Based on the foregoing, the NRC staff has concluded that the proposed action would have no significant environmental impact. Since this action would only extend the period of construction activities described in the FES, it does not involve any different impacts or a significant change to those impacts described and analyzed in the original environmental impact statement. Consequently, an environmental impact statement addressing the proposed action is not required.

Alternatives to the Proposed Action:

A possible alternative to the proposed action would be to deny the request, or the no-action alternative. This alternative would result in expiration of the construction permit for Watts Bar, Unit 2. This option would require submittal of another application for construction in order to allow the permittee to complete construction of the facility with no significant environmental benefit. The environmental impacts of the proposed action and alternative action are similar.

Denial of the request could also result in TVA seeking other sources of electrical power. Siting and constructing new power generating facilities would result in their own environmental impacts, and does not provide an obvious environmental benefit versus the proposed construction permit extension, especially given the large degree of construction already completed for WBN Unit 2.

Alternative Use of Resources:

This action does not involve the use of resources not previously considered in the FES for Watts Bar, Units 1 and 2.

Agencies and Persons Contacted:

In accordance with its stated policy, on May 28, 2008, the staff consulted with officials from the State of Tennessee, including Alan Leiserson, Legal Services Director of the Tennessee Department of Environment and Conservation, regarding the environmental impact of the proposed action. The State officials had no comments.

FINDING OF NO SIGNIFICANT IMPACT

On the basis of the environmental assessment, the NRC concludes that this action will not have a significant effect on the quality of the human environment. Accordingly, the NRC has determined not to prepare an environmental impact statement for this action.

For further details with respect to this action, see the licensee's request for extension dated May 8, 2008. Documents may be examined, and/or copied for a fee, at the NRC's Public Document Room, located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible electronically from the Agencywide Documents Access and Management System (ADAMS) Public Electronic Reading room on the internet at the NRC Web site, <http://www.nrc.gov/reading-rm/adams.html>. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS should contact the NRC PDR Reference staff by telephone at 1-800-397-4209 or send an e-mail to [pdrc@nrc.gov](mailto:pdrc@nrc.gov).

Dated at Rockville, Maryland this 20<sup>th</sup> day of June 2008.

FOR THE NUCLEAR REGULATORY COMMISSION

**/RA/**

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**WATTS BAR NUCLEAR PLANT, UNIT 2**

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