

October 24, 2000

Mr. J. A. Scalice
Chief Nuclear Officer and
Executive Vice President
Tennessee Valley Authority
6A Lookout Place
1101 Market Street
Chattanooga, Tennessee 37402-2801

SUBJECT: WATTS BAR NUCLEAR PLANT, UNIT 2 - ORDER EXTENDING
CONSTRUCTION COMPLETION DATE (TAC NO. MA6947)

Dear Mr. Scalice:

In response to the Tennessee Valley Authority's letter dated October 13, 1999 (as supplemented by letter dated July 14, 2000), requesting an extension of the completion date for the construction of the Watts Bar Nuclear Plant, Unit 2, the U.S. Nuclear Regulatory Commission has issued an Order extending the construction completion date. In lieu of the last completion date of December 31, 1999, the construction completion date of Construction Permit No. CPPR-92 (Unit 2) has been extended to December 31, 2010.

Copies of the Order and the staff's Safety Evaluation of your request are enclosed for your information. The Order has been sent to the Office of the Federal Register for publication. The Environmental Assessment and Finding of No Significant Impact were published in the *Federal Register* on October 10, 2000 (65 FR 60225).

Sincerely,

/RA/

Robert E. Martin, Senior Project Manager, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-391

Enclosures: 1. Order
2. Safety Evaluation

cc w/encl: See next page

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NUCLEAR REGULATORY COMMISSION

In the Matter of)
)
TENNESSEE VALLEY AUTHORITY)
)
(Watts Bar Nuclear Plant, Unit 2)) Docket No. 50-391

ORDER

Tennessee Valley Authority (TVA, the permittee) is the current holder of Construction Permit No. CPPR-92, issued by the Atomic Energy Commission on January 23, 1973, for construction of the Watts Bar Nuclear Plant (WBN), Unit 2. (CPPR-91 for construction of WBN Unit 1 was also issued on January 23, 1973, and Facility Operating License NPF-90 was issued for operation of Unit 1 on February 7, 1996.) Unit 2 is currently partially completed and is being maintained in a construction layup status. These facilities are at the permittee's site on the west branch of the Tennessee River approximately 50 miles northeast of Chattanooga, Tennessee.

On October 13, 1999, the Tennessee Valley Authority filed a request pursuant to 10 CFR 50.55(b) for an extension of the completion date for Unit 2 to December 31, 2010. This request was supplemented by letter dated July 14, 2000. The permittee requested this extension for Unit 2 for the following reasons, as stated in its application:

At this time, WBN Unit 2 is being maintained in a construction layup status. TVA plans to maintain the unit in this status pending the determination of new generation (supply-side) options to meet future electric power demands. TVA's integrated resource plan - Energy Vision 2020 - identified the need for a flexible range of options and alternatives required to meet, among other things, the Tennessee Valley region's new base-load power supply needs through the year 2020. Recent record breaking energy demand in the Tennessee Valley reinforced TVA's obligation to provide ample safe, economic, reliable, and environmentally responsible sources of electric power. Fulfilling this responsibility in light of the many uncertainties associated with the future electric utility industry makes it imperative that TVA maintain a robust and flexible range of generating options. The extension of WBN Unit 2's construction permit will help TVA maintain a full scope of competitive energy production choices.

In support of this request, the permittee stated that

[WBN Unit 2 meets] ... NRC's definition for deferred nuclear plant units as described in Generic Letter (GL) 87-15, "Policy Statement on Deferred Plants." Consideration of these units in a deferred status does not constitute a reduction in commitment in accordance with 10 CFR 50.55(f)(3)(i).

The current quality assurance requirements applicable to the subject units, particularly the maintenance, preservation, and documentation requirements, will continue in accordance with the Nuclear Quality Assurance Plan ... (NQA Plan). Future changes to the NQA Plan may be submitted commensurate with the site activities and expected length of delay, in accordance with 10 CFR 50.55(f)(3).

TVA has established maintenance and lay-up programs that are described and controlled in accordance with approved plant procedures. No changes have been made to these programs as a result of considering these units in accordance with GL 87-15. These programs have been inspected periodically since their inception. NRC conducted the last inspection of ... WBN Unit 2 in July 1999..., and no findings or violations were identified.

Consistent with GL 87-15 ... and 10 CFR 2.109, "Effect of Timely Renewal Application," TVA is maintaining ... [the WBN Unit 2] construction permit At this time, no projected date for the resumption of construction activities for ... [WBN Unit 2] is available.

The NRC's Policy Statement on Deferred Plants addresses extension of construction permits for plants in deferred status and states that the staff will consider such extensions in accordance with 10 CFR 50.55(b). Section 50.55(b) does not specify any limit on the duration of an extension that the staff may grant, but states that "Upon good cause shown the Commission will extend the completion date for a reasonable period of time." The staff has concluded that the permittee's stated bases for the requested duration of the extension represent good cause and are reasonable, and that this action involves no significant hazards consideration.

Pursuant to 10 CFR 51.32, the Commission has determined that extending the construction completion date will have no significant impact on the environment.

The NRC staff has prepared an environmental assessment and finding of no significant impact which was published in the FEDERAL REGISTER on October 10, 2000.

For further details with respect to this action, see the application dated October 13, 1999, as supplemented by letter dated July 14, 2000, and the NRC staff's letter and Safety Evaluation of the request for extension of the construction permit, dated October 24, 2000.

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, and are accessible electronically through the ADAMS public Electronic Reading Room link at the NRC Web site (<http://www.nrc.gov>).

IT IS HEREBY ORDERED THAT the latest completion date for Construction Permit No. CPPR-92 is extended from December 31, 1999, to December 31, 2010.

Dated at Rockville, Maryland, this 24th day of October 2000.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Brian W. Sheron, Acting Director
Office of Nuclear Reactor Regulation

For further details with respect to this action, see the application dated October 13, 1999, as supplemented by letter dated July 14, 2000, and the NRC staff's letter and Safety Evaluation of the request for extension of the construction permit, dated October 24, 2000.

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Dated at Rockville, Maryland, this 24th day of October 2000.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Brian W. Sheron, Acting Director
Office of Nuclear Reactor Regulation

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATING TO REQUEST FOR EXTENSION

OF CONSTRUCTION PERMIT NO. CPPR-92

WATTS BAR NUCLEAR PLANT, UNIT 2

DOCKET NO. 50-391

1.0 INTRODUCTION

Two construction permits were issued to Tennessee Valley Authority (TVA or permittee) on January 23, 1973, authorizing construction of the Watts Bar Nuclear (WBN) Plant, Units 1 and 2 (the facility), in Rhea County, Tennessee. Facility operating license NPF-90 was issued for operation of Unit 1 on February 7, 1996. Currently, Construction Permit CPPR-92 specifies December 31, 1999, as the latest date for completion of Unit 2.

Pursuant to *Title 10 of the Code of Federal Regulations* (10 CFR) Section 50.55(b), the permittee requested that this date be extended to December 31, 2010, for Unit 2. The permittee's request for this construction permit extension is contained in its letter dated October 13, 1999, as supplemented by letter dated July 14, 2000.

2.0 DISCUSSION

The permittee's letter of October 13, 1999, stated that the basis for its request includes the following factors:

In TVA's November 10, 1993, request to extend the expiration dates of the WBN Unit 1 and Unit 2 construction permits, TVA stated that active work directed toward the completion of WBN Unit 2 would not be started until WBN Unit 1 had entered operation successfully. As NRC is aware, WBN Unit 1 successfully entered commercial operation in May 1996 and is currently in the third cycle. Notwithstanding its extended period of construction, WBN Unit 1 has operated in an exemplary manner since the commencement of full power generation. The unit's operational record provides ample evidence of its sound construction and validates the strict construction verification standards and practices instituted to ensure its operational readiness. The experiences and lessons learned from WBN Unit 1 construction will certainly be put to beneficial use in any future construction associated with WBN Unit 2.

At this time, WBN Unit 2 is being maintained in a construction layup status. TVA plans to maintain the unit in this status pending the determination of new generation (supply-side) options to meet future electric power demands. TVA's integrated resource plan - Energy Vision 2020 - identified the need for a flexible range of options and alternatives required to meet, among other things, the Tennessee Valley region's new base-load power supply needs through the year 2020. Recent record breaking energy demand in the Tennessee Valley reinforced TVA's obligation to provide ample safe, economic,

reliable, and environmentally responsible sources of electric power. Fulfilling this responsibility in light of the many uncertainties associated with the future electric utility industry makes it imperative that TVA maintain a robust and flexible range of generating options. The extension of WBN Unit 2's construction permit will help TVA maintain a full scope of competitive energy production choices.

In the July 14, 2000, letter, TVA provided additional justification for the acceptability of the extension request. The permittee stated that

[WBN Unit 2 meets] ... NRC's definition for deferred nuclear plant units as described in Generic Letter (GL) 87-15, "Policy Statement on Deferred Plants." Consideration of these units in a deferred status does not constitute a reduction in commitment in accordance with 10 CFR 50.55(f)(3)(i).

The current quality assurance requirements applicable to the subject units, particularly the maintenance, preservation, and documentation requirements, will continue in accordance with the Nuclear Quality Assurance Plan ... (NQA Plan). Future changes to the NQA Plan may be submitted commensurate with the site activities and expected length of delay, in accordance with 10 CFR 50.55(f)(3).

TVA has established maintenance and lay-up programs that are described and controlled in accordance with approved plant procedures. No changes have been made to these programs as a result of considering these units in accordance with GL 87-15. These programs have been inspected periodically since their inception. NRC conducted the last inspection of ... WBN Unit 2 in July 1999..., and no findings or violations were identified.¹

Consistent with GL 87-15 ... and 10 CFR 2.109, "Effect of Timely Renewal Application," TVA is maintaining ... [the WBN Unit 2] construction permit At this time, no projected date for the resumption of construction activities for ... [WBN Unit 2] is available."

The construction delay described above is the result of a delay in the completion of Unit 1 and of TVA's decision to maintain Unit 2 in a construction layup status pending TVA's determination of further options to meet future electric power demands. As documented in the permittee's July 14, 2000, letter, TVA has programs and processes in place to ensure that WBN Unit 2 is maintained in a status consistent with NRC regulations and guidelines and industry practice.

The NRC's Policy Statement on Deferred Plants addresses extension of construction permits for plants in deferred status and states that the staff will consider such extensions in accordance with 10 CFR 50.55(b). Section 50.55(b) does not specify any limit on the duration of an extension that the staff may grant, but states that "Upon good cause shown the Commission will extend the completion date for a reasonable period of time." The staff has concluded that the permittee's stated bases for the requested duration of the extension are reasonable and that good cause has been shown for the extension requested by the permittee.

¹ The NRC staff also notes that a further inspection of Unit 2's layup status was conducted as discussed in Inspection Report 50-390/00-04, 50-391/00-04, dated October 16, 2000, and that no findings of significance were identified.

3.0 ENVIRONMENTAL CONSIDERATION

Pursuant to 10 CFR 51.21, 51.32, and 51.35, an environmental assessment and finding of no significant impact has been prepared and published in the *Federal Register* on October 10, 2000 (65 FR60225). Accordingly, based upon the environmental assessment the staff has determined that extending the construction completion dates will not have a significant effect on the quality of the human environment.

Based on the review of the permittee's request, the NRC staff concludes that the factors discussed above constitute good cause for the delay in the completion of construction under 10 CFR 50.55(b).

As a result of the staff's review of the Watts Bar Final Safety Analysis Report to date and considering the nature of the delay, the staff has identified no area of significant safety considerations resulting directly from the extension of the construction completion date. In addition, the staff finds that the only modification proposed by the permittee to the existing construction permit is an extension of the latest completion date. This extension does not allow any work to be performed of the type not previously authorized by the existing construction permit.

4.0 CONCLUSION

The staff finds that (1) this action does not involve a significant increase in the probability or consequences of an accident previously evaluated, (2) this action does not create the possibility of a new or different kind of accident from any previously evaluated and does not involve a significant reduction in a margin of safety, (3) there is reasonable assurance that the health and safety of the public will not be endangered by extension of the construction completion date. Good cause exists for issuance of an order extending the completion date. Accordingly, the staff has concluded that the action does not involve a significant hazards consideration and that, based upon the foregoing evaluation, issuance of an order extending the latest completion date for construction of the Watts Bar Nuclear Plant Unit 2 is reasonable and should be authorized. The latest completion date for Unit 2 should be extended to December 31, 2010.

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Date: October 24, 2000

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