



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

March 26, 1984

Docket Nos.: 50-390  
and 50-391

Mr. H. G. Parris  
Manager of Power  
Tennessee Valley Authority  
500A Chestnut Street, Tower II  
Chattanooga, Tennessee 37401

Dear Mr. Parris:

SUBJECT: EXTENSION OF CONSTRUCTION COMPLETION DATES FOR WATTS BAR NUCLEAR  
PLANT, UNITS 1 AND 2

In response to your letter dated October 11, 1983, requesting an extension of the completion dates for the Watts Bar Nuclear Plant, Units 1 and 2, the Nuclear Regulatory Commission has issued an order extending the construction completion dates. In lieu of the latest completion date of March 1, 1984, the construction completion date of Construction Permit No. CPPR-91 has been extended to January 1, 1985 for Unit 1. In addition, the Unit 2 completion date of August 1, 1985 as specified in Construction Permit No. CPPR-92, has been extended to July 1, 1986.

Copies of the Order and the staff's safety evaluation of your request are enclosed for your information. The Order has been forwarded to the Office of the Federal Register for publication.

Sincerely,

Elinor G. Adensam, Chief  
Licensing Branch No. 4  
Division of Licensing

Enclosures:

1. Order Extending  
Construction Completion Dates
2. Safety Evaluation

cc w/enclosures:  
See next page

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March 26, 1984

Order Extending Construction Completion Dates for Watts Bar Nuclear Plant, Units  
1 and 2

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TENNESSEE VALLEY AUTHORITY  
WATTS BAR NUCLEAR PLANT, UNITS 1 AND 2  
DOCKET NOS. 50-390 AND 50-391  
ORDER EXTENDING CONSTRUCTION COMPLETION DATES

Tennessee Valley Authority is the current holder of Construction Permit Nos. CPPR-91 and CPPR-92, issued by the Atomic Energy Commission\* on January 23, 1973, for construction of the Watts Bar Nuclear Plant, Units 1 and 2. These facilities are presently under construction at the applicant's site on the west branch of the Tennessee River approximately 50 miles north-east of Chattanooga, Tennessee.

On October 11, 1983, the Tennessee Valley Authority (the applicant) filed a request for an extension of the completion dates. The extension has been requested because construction has been delayed by the following events:

1. Piping analysis and hanger/support design, installation, and documentation due to numerous nonconforming conditions identified in the construction and design efforts.
2. Closure of licensing items as a result of NRC-identified violations and TVA-identified conditions adverse to quality (i.e., 50.55e items).
3. Quality assurance documentation, ASME Section III N-5 Data Form, and the "as-constructed" drawings program.
4. Completion of conduit, cable, and instrumentation installation.
5. Application of protective coatings inside the Reactor Building.
6. Completion of the piping, hanger, and support verification program required by NRC-OIE Bulletin 79-14.

\*Effective January 19, 1975, the Atomic Energy Commission became the Nuclear Regulatory Commission and permits in effect on that day were continued under the authority of the Nuclear Regulatory Commission.

7. TVA has also requested that allowance for further contingencies be made in granting the extension of the completion dates.

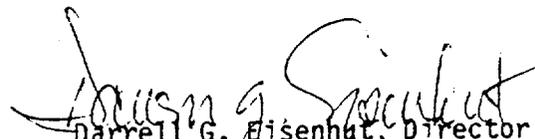
This action involves no significant hazards consideration; good cause has been shown for the delays; several of the causes were beyond the control of the applicant; and the extension is for a reasonable period, the bases for which are set forth in the staff's evaluation of the request for extension.

The Commission has determined that this action will not result in any significant environmental impact, and pursuant to 10 CFR 51.5(d)(4), an environmental impact statement, or negative declaration and environmental impact appraisal, need not be prepared in connection with this action.

The NRC staff safety evaluation of the request for extension of the construction permits is available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D.C. 20555 and the Chattanooga Hamilton County Bicentennial Library, 1001 Broad Street, Chattanooga, Tennessee 37402.

IT IS HEREBY ORDERED THAT the latest completion date for Construction Permit No. CPPR-91 is extended from March 1, 1984 to January 1, 1985, and the latest completion date for Construction Permit No. CPPR-92 is extended from August 1, 1985 to July 1, 1986.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Darrell G. Eisenhut, Director  
Division of Licensing  
Office of Nuclear Reactor Regulation

Date of Issuance: March 26, 1984

SAFETY EVALUATION OF REQUEST FOR EXTENSION  
OF CONSTRUCTION PERMIT NOS. CPPR-91 AND CPPR-92  
WATTS BAR NUCLEAR PLANT, UNITS 1 AND 2  
DOCKET NOS. 50-390 AND 50-391

INTRODUCTION

Two construction permits were issued to Tennessee Valley Authority on January 23, 1973, authorizing construction of the Watts Bar Nuclear Plant, Units 1 and 2, (the facility) in Rhea County, Tennessee. Construction Permit CPPR-91 specified March 1, 1984 as the latest date for completion of construction of Unit 1. Construction Permit CPPR-92 specified August 1, 1985 as the latest date for completion of construction for Unit 2.

The applicant requested that these dates be extended to January 1985, for Unit 1 and July 1986, for Unit 2. The permittee's request for these construction permit extensions is contained in their letter of October 11, 1983.

DISCUSSION

The permittee's letter of October 11, 1983 states that the delay in the completion of construction of the Watts Bar Nuclear Plant, Units 1 and 2, is due to the following factors.

1. Piping analysis and hanger/support design, installation, and documentation due to numerous nonconforming conditions identified in the construction and design efforts.
2. Closure of licensing items as a result of NRC-identified violations and TVA-identified conditions adverse to quality (i.e., 50.55e items).
3. Quality assurance documentation, ASME Section III N-5 Data Form, and the "as-constructed" drawings program.
4. Completion of conduit, cable, and instrumentation installation.
5. Application of protective coatings inside the Reactor Building.
6. Completion of the piping, hanger, and support verification program required by NRC-OIE Bulletin 79-14.

TVA has also requested that allowance for future contingencies be made in granting the extension of the completion dates.

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## EVALUATION

1. TVA's normal system walkdown and inspection program performed prior to system transfer for preoperational testing has resulted in the identification of numerous nonconforming conditions of the facility's hangers and supports. As stated in the March 25, 1983 meeting summary of the NRC's caseload forecast panel site visit, the untimely completion of hangers and support releases could be a critical path toward completion of preoperational testing. Delays caused by hanger rework affect the rate of completion of system transfers, which in turn impact the preoperational testing schedule. The applicant has estimated that completion of this work has been delayed approximately four months. The staff has concluded that this factor for the delay of construction completion of the Watts Bar facility was, in part, within the control of the permittee.
2. The March 25, 1983 caseload forecast panel meeting summary also stated that the large amount of paperwork (50.55e items, IE Bulletin responses and documentation, non-conformance reports, documentation packages), that needs to be completed to support fuel load could impact the Watts Bar fuel load schedule. The applicant has indicated that completion of this work has been delayed approximately three months. The staff has concluded that this factor for the delay of construction completion for the Watts Bar facility was, in part, within the control of the permittee.
3. The large amount of design modifications caused by TVA and NRC-identified concerns and conditions has caused a backlog in updating the quality assurance documentation, ASME Section III N-5 data forms, and "as-constructed" drawings required to be at the facility site by fuel load. The applicant has estimated that completion of this work has been delayed approximately three months. The staff has concluded that this factor for the delay of construction completion for the Watts Bar facility was, in part, within the control of the permittee. However, in some instances (such as modifications required due to TMI-related issues and modifications due to NRC staff review), the delay of the construction completion of the facility was beyond the control of the permittee due to difficulties in procuring qualified equipment.
4. Much of the conduit, cable, and instrumentation installation causing construction delays can be directly attributed to the implementation of new requirements that were imposed by the staff as a result of the evaluation of the TMI-accident. Difficulty procuring qualified equipment has contributed to delays in equipment installation and testing. The applicant has estimated that completion of this work has been delayed approximately two months. The staff has concluded that this factor for the delay of the construction completion of the Watts Bar facility was beyond the control of the permittee.
5. Delays in the application of the zinc-based paint used to protect the concrete in the reactor building have been caused by the delays in hanger/support installation and coordination with the preoperational testing program. The applicant has estimated that completion of this work has been delayed approximately two months. The staff has concluded that this factor for the delay of

construction completion for the Watts Bar facility was, in part, within the control of the permittee.

6. Delays in TVA's reinspection program of the facility's piping, hangers, and supports instituted to comply with IE Bulletin 79-14 have impacted the completion of the Watts Bar facility for the same reasons discussed in Paragraph 1 of this section. The applicant has estimated that completion of this work has been delayed approximately one month. The staff has concluded that this factor for the delay of construction completion for the Watts Bar facility was, in part, within the control of the permittee.
7. By letter dated January 23, 1984, TVA revised the Watts Bar fuel load date to June 1984 for Unit 1 and December 1985 for Unit 2. Therefore, the request to extend the Construction Permit to January 1985 for Unit 1 and to July 1986 for Unit 2 includes a seven month period of time for each unit to allow for unexpected contingencies. In view of the status of construction of both units and the possible need for design changes, the staff has concluded that seven months is a conservative estimate to account for such contingencies.

#### ENVIRONMENTAL CONSIDERATION

The staff has determined that most of the principal facility structures have been completed prior to June 1979. In addition, no new major roads or railways have been constructed nor has there been any significant increase in waterway traffic as a result of construction activities at the Watts Bar facility since June 1979. Extension of the construction completion dates for both units will result in the same construction impacts evaluated in the Final Environmental Statement (NUREG-0498, December 1978) spread over a longer period of time. Having made this determination, we have concluded that the order involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR Section 51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this order.

#### CONCLUSIONS

Based on the staff's review of the permittee's request, we conclude that the factors discussed above that were beyond the control of the permittee constitute good cause for the delay in the completion of construction under 10 CFR 50.55(b). The permittee has maintained a construction effort at the Watts Bar site and has revised the design and construction of the facility to correct design deficiencies and to make plant improvements which are needed to enhance plant safety. Based on our evaluation of the causes for the delay, we have determined that the requested extension is for a reasonable period of time.

As a result of our review of the Watts Bar Final Safety Analysis Report to date and considering the nature of the delays, the staff has identified no area of

significant safety considerations in connection with the extension of the construction completion dates. In addition, we find that the only modification proposed by the permittee to the existing construction permits is an extension of the latest completion dates. This extension does not allow any work to be performed involving new safety information of the type not considered by a previously existing construction permit. Therefore, we find that (1) this action does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by extension of the construction completion dates, and (3) good cause exists for issuance of an order extending the completion dates.

Accordingly, issuance of an order extending the latest completion dates for construction of the Watts Bar Nuclear Plant is reasonable and should be authorized. The latest completion date for Unit 1 should be extended to January 1, 1985, and the latest completion date for Unit 2 should be extended to July 1, 1986.

Principal Contributor: Thomas Kenyon, Licensing Branch No. 4, Division of Licensing

Date of Issuance: March 26, 1984



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555

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March 26, 1984

Docket Nos. 50-390  
50-391

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Docketing and Service Section  
Office of the Secretary of the Commission

SUBJECT: Watts Bar Nuclear Plant, Units 1 and 2 (TENNESSEE VALLEY AUTHORITY)

One ~~was~~ signed original of the Federal Register Notice identified below ~~are~~ is enclosed for your transmittal to the Office of the Federal Register for publication. Additional conformed copies ( 6 ) of the Notice are enclosed for your use.

- Notice of Receipt of Application for Construction Permit(s) and Operating License(s).
- Notice of Receipt of Partial Application for Construction Permit(s) and Facility License(s): Time for Submission of Views on Antitrust Matters.
- Notice of Availability of Applicant's Environmental Report.
- Notice of Proposed Issuance of Amendment to Facility Operating License.
- Notice of Receipt of Application for Facility License(s); Notice of Availability of Applicant's Environmental Report; and Notice of Consideration of Issuance of Facility License(s) and Notice of Opportunity for Hearing.
- Notice of Availability of NRC Draft/Final Environmental Statement.
- Notice of Limited Work Authorization.
- Notice of Availability of Safety Evaluation Report.
- Notice of Issuance of Construction Permit(s).
- Notice of Issuance of Facility Operating License(s) or Amendment(s).
- Other: Order Extending Construction Completion Dates

Enclosure:  
As Stated

Office of Nuclear Reactor Regulation

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