

Docket Nos. 50-390/50-391

June 30, 1987

Mr. S. A. White
Manager of Nuclear Power
Tennessee Valley Authority
6N 38A Lookout Place
1101 Market Street
Chattanooga, Tennessee 37402-2801

Dear Mr. White:

SUBJECT: EXTENSION OF CONSTRUCTION COMPLETION DATES

Re: Watts Bar Nuclear Plant, Units 1 and 2

In response to TVA's letter dated January 29, 1987, 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, 1987, the construction completion date of Construction Permit No. CPPR-91 has been extended to September 1, 1988, for Unit 1. In addition, the Unit 2 completion date of September 1, 1987, as specified in Construction Permit No. CPPR-92, has been extended to January 1, 1990. The staff believes that the requested construction completion dates are optimistic considering the work required to be completed on Units 1 and 2 before an operating license can be issued. However, in the absence of TVA's request for any other dates, the staff has approved the dates requested in TVA's letter dated January 29, 1987.

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. The Environmental Assessment and Finding of No Significant Impact was published in the Federal Register on March 13, 1987 (52 FR 7949).

Sincerely,

Original Signed By

John A. Zwolinski, Assistant Director
for Projects
TVA Projects Division
Office of Special Projects

Enclosures:

1. Order Extending Construction Completion Dates
2. Safety Evaluation

cc w/enclosures:
See next page

*SEE PREVIOUS PAGE FOR CONCURRENCE

OFC	:OSP*	:OSP*	:OSP*	:OSP*	:OSP*	:OSP*
NAME	:RAuluck	:CJamerson	:JZwolinski	:OGC-BETH	:SEbnetter	:JAxelrad
DATE	:5/06/87	:5/11/87	:5/11/87	:2/25/87	:5/14/87	:5/28/87

OSP
Jeppler
8/30/87

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Order dated June 30, 1987 extending construction permit CPPR-91 and CPPR-92.

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Docket File

NRC PDR

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I. Bailey

J. Scinto

J. Partlow

E. Jordan

D. Hagan

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ACRS (10)

OGC-BETH

T. Barnhart (8)

Projects Reading

Watts Bar Reading

GPA/PA

SECY

TVA-BETH

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DISTRIBUTION
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Those on attached list

Mr. S. A. White
Manager of Nuclear Power
Tennessee Valley Authority
6N 38A Lookout Place
1101 Market Street
Chattanooga, Tennessee 37402-2801

Subject: Extension of Construction Completion Dates for Watts Bar Nuclear Plant, Units 1 and 2

In response to TVA's letter dated January 29, 1987, 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, 1987, the construction completion date of Construction Permit No. CPPR-91 has been extended to September 1, 1988, for Unit 1. In addition, the Unit 2 completion date of September 1, 1987, as specified in Construction Permit No. CPPR-92, has been extended to January 1, 1990.

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John A. Zwolinski, Assistant Director
for Projects
Division of TVA Projects

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See next page

PWR#4/DPWR-A
TKenyon/irad
02/18/87

PWR#4/DPWR-A
MDuncan
02/18/87

PWR#4/DPWR-A
BJYoungblood
03/4/87

DTVA:AD/P
JZwolinski
A/15/87

R. Auluck
4/3/87

UGC/AD/irad revisions to SE and order
MYoung
2/25/87

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 northeast of Chattanooga, Tennessee.

On January 29, 1987, 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. Delays resulting from analysis and modifications required to resolve concerns raised in TVA's Employee Concern Program;
2. Delays resulting from completion of the welding evaluation program;
3. Delays resulting from the reallocation of certain resources to the restart programs for TVA's Sequoyah and Browns Ferry Nuclear Plants.

The NRC staff has concluded that good cause has been shown for the delays, the extension is for a reasonable period, and that this action involves no significant hazards consideration, the bases for which are set forth in the staff's evaluation of the request for extension dated January 29, 1987. However,

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*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.

the staff believes that the requested construction completion dates are optimistic considering the issues and problems that must be resolved before an operating license can be issued.

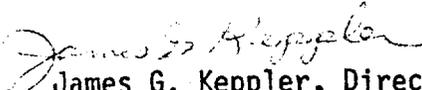
The NRC staff has prepared an environmental assessment and finding of no significant impact which was published in the FEDERAL REGISTER on March 13, 1987 (52 FR 7949). Pursuant to 10 CFR 51.32, the Commission has determined that extending the construction completion dates will have no significant impact on the environment.

The applicant's letter dated January 29, 1987, and the NRC staff's letter and safety evaluation of the request for extension of the construction permits, dated *June 30, 1987* 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 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, 1987 to September 1, 1988, and the latest completion date for Construction Permit No. CPPR-92 is extended from September 1, 1987, to January 1, 1990.

Dated at Bethesda, Maryland, this *30th* day of June 1987.

FOR THE NUCLEAR REGULATORY COMMISSION


James G. Keppler, Director
Office of Special Projects



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

SAFETY EVALUATION BY THE OFFICE OF SPECIAL PROJECTS
RELATING TO 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

1.0 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 specifies March 1, 1987, as the latest date for completion of construction of Unit 1. Construction Permit CPPR-92 specifies September 1, 1987, as the latest date for completion of construction for Unit 2.

The permittee requested that these dates be extended to September 1988 for Unit 1 and January 1990 for Unit 2. The permittee's request for these construction permit extensions is contained in its letter dated January 29, 1987. The present construction permit (CP) extension request as well as the previous CP extension requests were all filed by TVA in a timely manner as specified in Section 2.109 of 10 CFR Part 2.

2.0 DISCUSSION

The permittee's letter of January 29, 1987, 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. Delays resulting from analysis and modifications required to resolve concerns raised in TVA's Employee Concern Program;
2. Delays resulting from completion of the welding evaluation program;
3. Delays resulting from the reallocation of certain resources to the restart programs for TVA's Sequoyah and Browns Ferry Nuclear Plants.

3.0 EVALUATION

1. In March 1985, concerns were raised to the staff by TVA employees concerning the adequacy of construction of the Watts Bar facility. To respond to concerns raised by the staff, TVA instituted a third party interview program to interview 100% of TVA employees who worked on the Watts Bar facility. Over 1800 potentially safety related concerns have been raised on the Watts Bar facility. Each concern will be evaluated, and modifications, if necessary, will be made to the plant. Although no

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schedule has been provided by TVA for completion of this program, the staff estimates the impact to the Watts Bar Unit 1 fuel load date will total approximately 42 months from March 1985, with about 18 months of work remaining before Unit 1 fuel load. Because construction of Unit 2 is approximately 75% complete, the staff estimates that Unit 2 fuel load would occur 16 months following the delayed Unit 1 fuel load.

2. Deficiencies in the welding program at the Watts Bar facility were raised as part of TVA's employee concern issues discussed above. Resolution of this issue will be done concurrently with the employee concern effort, and is expected to be completed in approximately in mid-1988.
3. In November 1986, TVA announced its priorities for its nuclear facilities as follows: Sequoyah, Browns Ferry, Watts Bar, and Bellefonte. As a result of this order of priorities, certain engineering and construction resources originally allocated for the fuel load of Watts Bar have been diverted to the restart programs for Sequoyah and Browns Ferry Nuclear Plants. This reallocation of resources is expected to impact the Watts Bar fuel load schedule by 3 to 6 months, depending upon the restart date of the Sequoyah facilities.

The construction delays listed above are the result of concerns raised by TVA employees or TVA contractors. These concerns must be resolved satisfactorily prior to issuance of the fuel load license to ensure the safe operation of the facility. Therefore, good cause has been shown for the extension requested by the permittee. The staff believes that the requested construction completion dates are optimistic considering the issues and problems that must be resolved before an operating license can be issued.

4.0 ENVIRONMENTAL CONSIDERATION

Pursuant to 10 CFR 51.32, the Commission has determined that extending the construction completion dates will have no significant impact on the environment (52 FR 7949).

5.0 CONCLUSIONS

Based on the staff's review of the permittee's request, we conclude that the factors discussed above constitute good cause for 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. However, as stated above, the staff believes that the requested construction completion dates are optimistic, but in the absence of TVA's request for any other dates, the requested extension period is acceptable.

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 resulting directly from 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 of the type not previously authorized by the existing construction permit. Therefore, we find that (1) this action does not involve a significant increase in the probability or consequences of an accident previously evaluated, 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; (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, the NRC 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 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 September 1, 1988, and the latest completion date for Unit 2 should be extended to January 1, 1990.

Principal Contributor: Rajender Auluck, OSP

Date of Issuance: June 30, 1987