



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

November 21, 2013

Mr. Michael Skaggs  
Senior Vice President  
Nuclear Construction  
Tennessee Valley Authority  
6A Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

SUBJECT: WATTS BAR NUCLEAR PLANT, UNIT 2 – ORDER FOR EXTENSION OF  
CONSTRUCTION PERMIT (TAC NO. ME8738)

Dear Mr. Skaggs:

The U.S. Nuclear Regulatory Commission (NRC) has issued an Order extending the construction completion date of Construction Permit No. CPPR-92 for the Watts Bar Nuclear Plant, Unit 2, from March 31, 2013, to September 30, 2016. This extension is in response to your request in a letter dated May 17, 2012 (Agencywide Documents Access and Management System Accession No. ML12143A346).

Copies of the Order and the NRC 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.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Poole", is written over a horizontal line.

Justin C. Poole, Senior Project Manager  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-391

Enclosures:

1. Order
2. Safety Evaluation

cc: Listserv

**UNITED STATES OF AMERICA**  
**NUCLEAR REGULATORY COMMISSION**  
**[NRC-2013-XXXX]**

<b>In the Matter of</b>	)	
	)	
<b>Tennessee Valley Authority</b>	)	
	)	
<b>Watts Bar Nuclear Plant</b>	)	<b>Docket No. 50-391</b>
<b>Unit No. 2</b>	)	<b>Permit No. CPPR-92</b>

**Order Approving Extension of Construction Permit**

**I.**

Tennessee Valley Authority (TVA, the permittee) is the current holder of Construction Permit (CP) No. CPPR-92, issued by the Atomic Energy Commission (now the U.S. Nuclear Regulatory Commission (NRC or the Commission)) on January 23, 1973 (NRC's Agencywide Documents Access and Management System (ADAMS) Accession No. ML020780293), for construction of the Watts Bar Nuclear Plant (WBN), Unit 2. The NRC also issued CP No. CPPR-91 for construction of WBN Unit 1 on January 23, 1973 (ADAMS Accession No. ML020780293), and Facility Operating License NPF-90 was issued for operation of Unit 1 on February 7, 1996 (ADAMS Accession No. ML073460320). The WBN Unit 2 is currently partially completed. These facilities are at the permittee's site on the west branch of the Tennessee River, approximately 50 miles northeast of Chattanooga, Tennessee.

On May 17, 2012 (ADAMS Accession No. ML12143A346), TVA filed a request pursuant to Section 50.55(b) of Title 10 of the *Code of Federal Regulations* (10 CFR) for an extension of the CP completion date for WBN Unit 2 to September 30, 2016. The TVA requested this

extension to the WBN Unit 2 construction permit for the following reasons, as stated in its application:

In March 2012, TVA completed a detailed review of the status of WBN Unit 2 construction and developed a revised estimate of the time and resources necessary to complete the unit. This revised estimate was formed after months of analyses and consideration of numerous lessons learned as well as detailed analyses of remaining work associated with the Project. The estimate was then subjected to rigorous internal and independent external review which provided additional assurance and high confidence in a most likely WBN Unit 2 completion estimate of December 2015.

The letter also states:

The only modification requested to Construction Permit CPPR-92 is the extension of the latest completion date. The extension would only allow TVA more time to complete the construction and testing of WBN Unit 2 that is already authorized under the existing construction permit. The extension would not allow any work of a type not previously authorized by the existing construction permit to be performed.

## II.

The NRC reviewed the request dated May 17, 2012. As discussed more fully in the staff's related safety evaluation, good cause has been shown for the delay, and the requested extension involves no significant hazards consideration.

The NRC staff has prepared an environmental assessment and made a final finding of no significant impact, which was published in the *Federal Register* on October 22, 2013 (78 FR 62,709). The NRC staff determined that extending the construction completion date will not have significant effect on the quality of the human environment and therefore, an environmental impact statement for the proposed action would not be prepared.

For further details regarding this action, see TVA's letter dated May 17, 2012, and the NRC staff's letter and safety evaluation of the requested extension dated November 21, 2013 (ADAMS Accession No. ML13175A308).

**III.**

In accordance with 10 CFR 2.202, the Licensee, and any other person adversely affected by this Order, may submit an answer to this Order within twenty (20) days of its publication in the *Federal Register*. In addition, the Licensee and any other person adversely affected by this Order may request a hearing of this Order within twenty (20) days of its publication in the *Federal Register*. Where good cause is shown, consideration will be given to extending the time to request a hearing. A request for extension of time must be made, in writing, to the Director, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and include a statement of good cause for the extension.

The answer may consent to this Order. If an answer includes a request for a hearing, it shall, under oath or affirmation, specifically set forth the matters of fact and law on which the Licensee, or other adversely affected person, relies and the reasons as to why the Order should not have been issued. If a person other than the Licensee requests a hearing, that person shall set forth with particularity the manner in which his interest is adversely affected by this Order and shall address the criteria set forth in 10 CFR 2.309(d). The scope of a construction permit extension proceeding is limited to direct challenges to the permit holder's asserted reasons that show "good cause" justification for the delay.

If a hearing is requested by a licensee or a person whose interest is adversely affected, the Commission will issue an Order designating the time and place of any hearings. If a hearing is held, the issue to be considered at such hearing shall be whether this Order should be sustained. In the absence of any request for hearing, or any written approval of an extension of time in which to request a hearing, the provisions of this Order shall be final 20 days from the date this Order is published in the *Federal Register* without further order or proceedings. If an

extension of time for requesting a hearing has been approved, the provisions specified in this Order shall be final when the extension expires if a hearing request has not been received.

#### IV.

Described in 10 CFR 2.302 are the requirements for filing of documents. All documents filed in NRC adjudicatory proceedings, including a request for hearing, a petition for leave to intervene, any motion or other document filed in the proceeding prior to the submission of a request for hearing or petition to intervene, and documents filed by interested governmental entities participating under 10 CFR 2.315(c), must be filed in accordance with the NRC E-Filing rule (72 FR 49139, August 28, 2007). The E-Filing process requires participants to submit and serve all adjudicatory documents over the internet, or in some cases to mail copies on electronic storage media. Participants may not submit paper copies of their filings unless they seek an exemption in accordance with the procedures described below.

To comply with the procedural requirements of E-Filing, at least ten 10 days prior to the filing deadline, the participant should contact the Office of the Secretary by e-mail at [hearing.docket@nrc.gov](mailto:hearing.docket@nrc.gov), or by telephone at 301-415-1677, to request (1) a digital identification (ID) certificate, which allows the participant (or its counsel or representative) to digitally sign documents and access the E-Submittal server for any proceeding in which it is participating; and (2) advise the Secretary that the participant will be submitting a request or petition for hearing (even in instances in which the participant, or its counsel or representative, already holds an NRC-issued digital ID certificate). Based upon this information, the Secretary will establish an electronic docket for the hearing in this proceeding if the Secretary has not already established an electronic docket.

Information about applying for a digital ID certificate is available on the NRC's public Web site at <http://www.nrc.gov/site-help/e-submittals/apply-certificates.html>. System requirements for accessing the E-Submittal server are detailed in the NRC's "Guidance for

Electronic Submission,” which is available on the agency’s public Web site at <http://www.nrc.gov/site-help/e-submittals.html>. Participants may attempt to use other software not listed on the Web site, but should note that the NRC’s E-Filing system does not support unlisted software, and the NRC Meta System Help Desk will not be able to offer assistance in using unlisted software.

If a participant is electronically submitting a document to the NRC in accordance with the E-Filing rule, the participant must file the document using the NRC’s online, Web-based submission form. In order to serve documents through the Electronic Information Exchange System, users will be required to install a Web browser plug-in from the NRC’s Web site. Further information on the Web-based submission form, including the installation of the Web browser plug-in, is available on the NRC’s public Web site at <http://www.nrc.gov/site-help/e-submittals.html>.

Once a participant has obtained a digital ID certificate and a docket has been created, the participant can then submit a request for hearing or petition for leave to intervene. Submissions should be in Portable Document Format (PDF) in accordance with NRC guidance available on the NRC’s public Web site at <http://www.nrc.gov/site-help/e-submittals.html>. A filing is considered complete at the time the documents are submitted through the NRC’s E-Filing system. To be timely, an electronic filing must be submitted to the E-Filing system no later than 11:59 p.m. Eastern Time on the due date. Upon receipt of a transmission, the E-Filing system time-stamps the document and sends the submitter an e-mail notice confirming receipt of the document. The E-Filing system also distributes an e-mail notice that provides access to the document to the NRC’s Office of the General Counsel and any others who have advised the Office of the Secretary that they wish to participate in the proceeding, so that the filer need not serve the documents on those participants separately. Therefore, applicants and other participants (or their counsel or representative) must apply for and receive a digital ID

certificate before a hearing request/petition to intervene is filed so that they can obtain access to the document via the E-Filing system.

A person filing electronically using the NRC's adjudicatory E-Filing system may seek assistance by contacting the NRC Meta System Help Desk through the "Contact Us" link located on the NRC's public Web site at <http://www.nrc.gov/site-help/e-submittals.html>, by e-mail to [MSHD.Resource@nrc.gov](mailto:MSHD.Resource@nrc.gov), or by a toll-free call at 866-672-7640. The NRC Meta System Help Desk is available between 8 a.m. and 8 p.m., Eastern Time, Monday through Friday, excluding government holidays.

Participants who believe that they have a good cause for not submitting documents electronically must file an exemption request, in accordance with 10 CFR 2.302(g), with their initial filing requesting authorization to continue to use alternate format and transmission of documents. Such filings must be submitted by: (1) first class mail addressed to the Office of the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Attention: Rulemakings and Adjudications Staff, or (2) courier, express mail, or expedited delivery service to the Office of the Secretary, 16th Floor, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852, Attention: Rulemakings and Adjudications Staff. Participants filing a document in this manner are responsible for serving the document on all other participants. Filing is considered complete by first-class mail as of the time of deposit in the mail, or by courier, express mail, or expedited delivery service upon depositing the document with the provider of the service. A presiding officer, having granted an exemption request from using E-Filing, may require a participant or party to use E-Filing if the presiding officer subsequently determines that the reason for granting the exemption from use of E-Filing no longer exists.

Documents submitted in adjudicatory proceedings will appear in the NRC's electronic hearing docket which is available to the public at <http://ehd1.nrc.gov/ehd/>, unless excluded

pursuant to an order of the Commission, or the presiding officer. Participants are requested not to include personal privacy information, such as social security numbers, home addresses, or home phone numbers in their filings, unless an NRC regulation or other law requires submission of such information. With respect to copyrighted works, except for limited excerpts that serve the purpose of the adjudicatory filings and would constitute a Fair Use application, participants are requested not to include copyrighted materials in their submission.

**V.**

Copies of the application to extend the completion date in the CP for WBN Unit 2 are available for public inspection at the NRC's PDR, located at One White Flint North, Room O1-F21, 11555 Rockville Pike (first floor), Rockville, MD 20852. The application may be accessed in ADAMS through the NRC Library at <http://www.nrc.gov/reading-rm/adams.html> under ADAMS Accession No. ML12143A346. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS, should contact the NRC's PDR reference staff by telephone at 1-800-397-4209, or 301-415-4737, or by e-mail to [PDR.Resource@nrc.gov](mailto:PDR.Resource@nrc.gov).

**Attorney for the permit holder:** Ralph Rodgers, Executive Vice President and General Counsel, Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, TN 37902.



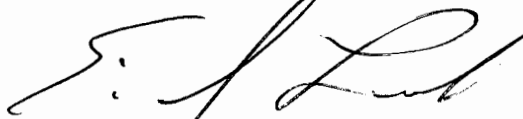
- 8 -

**VI.**

IT IS HEREBY ORDERED THAT the latest completion date for CP No. CPPR-92 is extended from March 31, 2013, to September 30, 2016.

Dated at Rockville, Maryland, this 21 day of Nov. 2013.

For the Nuclear Regulatory Commission.

A handwritten signature in black ink, appearing to read "Eric J. Leeds", written over a horizontal line.

Eric J. Leeds, Director,  
Office of Nuclear Reactor Regulation.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

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

The Atomic Energy Commission (now U.S. Nuclear Regulatory Commission (NRC)) issued construction permits to the Tennessee Valley Authority (TVA, or the permittee) on January 23, 1973 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML020780293), authorizing construction of the Watts Bar Nuclear Plant (WBN), Units 1 and 2, in Rhea County, Tennessee. Facility Operating License NPF-90 was issued for the operation of WBN Unit 1 on February 7, 1996. Currently, Construction Permit (CP) No. CPPR-92 specifies March 31, 2013, as the latest completion date for WBN Unit 2.

In a May 17, 2012, letter (ADAMS Accession No. ML12143A346), TVA requested that the latest completion date in CPPR-92 be extended to September 30, 2016, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.55(b).

2.0 EVALUATION

The completion date for the WBN Unit 2 CP was extended to March 31, 2013, by Order issued by the NRC on July 7, 2008 (ADAMS Accession No. ML081500115). TVA's May 17, 2012, letter states that the additional time would allow TVA to complete the engineering, construction, and pre-operational testing of WBN Unit 2. The letter also states that in March 2012, TVA completed a detailed review of the status of WBN Unit 2 construction and developed a revised estimate of the time and resources necessary to complete the unit. TVA stated that the estimate was subjected to rigorous internal and independent external reviews, which provided additional assurance and high confidence in a most likely WBN Unit 2 completion estimate of December 2015. TVA said that the extension request is the result of project performance not meeting the original estimated budget and schedule, and additional work not originally anticipated, such as that which will be required as a result of regulatory responses to and lessons learned from the events at Fukushima Dai-ichi in Japan. TVA also stated that its Board of Directors authorized the continuation of construction activities and completion of WBN Unit 2 in accordance with this revised estimate in April 2012. TVA's Board found that the same benefits that formed the basis for its 2007 decision to proceed with the completion and operation of WBN Unit 2 applied in 2012.

The NRC can extend the completion date of a CP for a reasonable period of time upon good cause shown, in accordance with 10 CFR 50.55(b). The Commission will recognize, among

other things, developmental problems attributable to an act of the elements and other acts beyond the control of the permit holder as bases for extending the completion date.

Although TVA has stated that the project has experienced schedule delays, progress has been made since construction resumed in 2008 under the existing CP. The NRC staff completed its environmental review when it issued Supplement 2 to NUREG-0498 "Final Environmental Statement Related to the Operation of Watts Bar Nuclear Plant, Unit 2." In addition, a major portion of the safety review of the Operating License application has been completed, and approximately 50 percent of the Inspection Procedure and Schedule database items have been closed. Further, the orders issued by the NRC on March 12, 2012, as a result of the accident at Fukushima Dai-ichi in Japan, will require additional work not previously planned by TVA.

The NRC staff finds that allowing TVA more time to address items that had not been completed under the original schedule meets good cause to extend the CP. Also, allowing TVA time to consider and address safety changes as a result of the accident at Fukushima Dai-ichi in Japan meets good cause. Therefore, good cause exists for the requested CP extension.

TVA's request described how it used an internal and independent external review to validate the scope of remaining work and select the new completion date. TVA believes that it could complete construction by December of 2015, but, in light of the additional work associated with TVA's response to the Fukushima Dai-ichi incident, TVA feels it is prudent to request an extension to September 30, 2016. The NRC staff finds that TVA's logic is sound and, accordingly, the NRC staff finds that the extension request to September 30, 2016, is for a reasonable period of time.

The extension only increases the amount of time to complete construction; the extension does not alter any other aspect of the construction permit. Accordingly, the date-change does not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. The construction activities do not have any radiological consequences. Therefore, the NRC staff finds that the requested extension does not involve a significant hazards consideration.

### 3.0 ENVIRONMENTAL CONSIDERATION

Pursuant to 10 CFR 51.21, "Criteria for and Identification of Licensing and Regulatory Actions Requiring Environmental Assessments," the NRC staff determined that an environmental assessment was required for this licensing and regulatory action. Accordingly, the NRC staff prepared an environmental assessment pursuant to 10 CFR 51.30. Based on the environmental assessment, the NRC staff prepared, under 10 CFR 51.32, a finding of no significant impact for the proposed action. Pursuant to 10 CFR 51.35, "Requirement to Publish Finding of No Significant Impact; Limitation on Commission Action," the NRC published the final finding of no significant impact, which incorporated the environmental assessment, in the *Federal Register* on October 22, 2013 (78 FR 62,709).

### 4.0 CONCLUSION

The NRC staff finds, pursuant to 10 CFR 50.55(b), that TVA has shown good cause to extend the completion date for construction to September 30, 2016, and there is reasonable assurance

that the health and safety of the public will not be endangered by extension of the construction completion date, and that the requested period of time is reasonable. Good cause exists for issuance of an order extending the completion date. The NRC staff has determined that the extension does not involve a significant hazards consideration and that, based upon the evaluation above, issuance of an order extending the latest completion date for construction of WBN Unit 2 is reasonable and should be authorized. The latest completion date for WBN Unit 2 should be extended to September 30, 2016.

Principal contributor: Justin Poole

Date: November 21, 2013

November 21, 2013

Mr. Michael Skaggs  
Senior Vice President  
Nuclear Construction  
Tennessee Valley Authority  
6A Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

SUBJECT: WATTS BAR NUCLEAR PLANT, UNIT 2 – ORDER FOR EXTENSION OF  
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Dear Mr. Skaggs:

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Sincerely,

/RA/

Justin C. Poole, Senior Project Manager  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-391

Enclosures:

1. Order
2. Safety Evaluation

cc: Listserv

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**Accession Numbers: LTR ML13175A308**

**FRN ML13326A092 \*via email**

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