



## **NUCLEAR REGULATORY COMMISSION**

**[Docket No. 50-390; NRC-2024-0201]**

**Tennessee Valley Authority;**

**Watts Bar Nuclear Plant, Unit 1;**

### **Environmental Assessment and Finding of No Significant Impact**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Notice; issuance.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of an amendment to Facility Operating License No. NPF-90, issued on February 7, 1996, and held by the Tennessee Valley Authority (TVA, the licensee) for the operation of Watts Bar Nuclear Plant (Watts Bar), Unit 1. The proposed action would revise the expiration date for Facility Operating License No. NPF-90 from November 9, 2035, to February 7, 2036. Specifically, the expiration date of the Watts Bar, Unit 1, full-power operating license (FPOL) would be revised such that it would expire 40 years from the date of issuance of the FPOL, as permitted by the NRC's regulations. The NRC staff is issuing an environmental assessment (EA) and finding of no significant impact (FONSI) associated with the proposed amendment.

**DATES:** The EA and FONSI referenced in this document are available on **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

**ADDRESSES:** Please refer to Docket ID **NRC-2024-0201** when contacting the NRC about the availability of information regarding this document. You may obtain publicly available information related to this document using any of the following methods:

- **Federal Rulemaking Website:** Go to <https://www.regulations.gov> and search for Docket ID **NRC-2024-0201**. Address questions about Docket IDs in Regulations.gov to Stacy Schumann; telephone: 301-415-0624; email: [Stacy.Schumann@nrc.gov](mailto:Stacy.Schumann@nrc.gov). For technical questions, contact the individual listed in the "For Further Information Contact" section of this document.

- **NRC’s Agencywide Documents Access and Management System**

**(ADAMS):** You may obtain publicly available documents online in the ADAMS Public Documents collection at <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, select “Begin Web-based ADAMS Search.” For problems with ADAMS, please contact the NRC’s Public Document Room (PDR) reference staff at 1-800-397-4209, at 301-415-4737, or by email to [PDR.Resource@nrc.gov](mailto:PDR.Resource@nrc.gov). For the convenience of the reader, instructions about obtaining materials referenced in this document are provided in the “Availability of Documents.”

- **NRC’s PDR:** The PDR, where you may examine and order copies of publicly available documents, is open by appointment. To make an appointment to visit the PDR, please send an email to [PDR.Resource@nrc.gov](mailto:PDR.Resource@nrc.gov) or call 1-800-397-4209 or 301-415-4737, between 8 a.m. and 4 p.m. eastern time (ET), Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Kimberly Green, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-1627; email: [Kimberly.Green@nrc.gov](mailto:Kimberly.Green@nrc.gov).

**SUPPLEMENTARY INFORMATION:**

**I. Introduction**

The NRC is considering issuance of an amendment to Facility Operating License No. NPF-90, issued to TVA, for operation of Watts Bar, Unit 1, located in Rhea County, Tennessee. The licensee requested the amendment to the Facility Operating License by letter dated April 17, 2024. If approved, the amendment would revise the expiration date of the license such that it would expire 40 years from the date of the issuance of the FPOL, as is permitted by section 50.51 of title 10 of the *Code of Federal Regulations* (10 CFR), “Continuation of license.” Because this action does not fall within the NRC’s list of categorical exclusions in 10 CFR 51.22, “Criterion for categorical exclusion; identification of licensing and regulatory actions eligible for categorical exclusion or otherwise not requiring environmental review,” the NRC prepared an EA, as required by

10 CFR 51.21, “Criteria for and identification of licensing and regulatory actions requiring environmental assessments.” Based on the results of the EA that follows, the NRC has determined not to prepare an environmental impact statement for the amendment and is issuing a FONSI.

## **II. Environmental Assessment**

### *Description of the Proposed Action*

The proposed action would revise the expiration date of Facility Operating License No. NPF-90, for Watts Bar, Unit 1, from November 9, 2035, to February 7, 2036, as described in the licensee’s application dated April 17, 2024.

### *Need for the Proposed Action*

On November 9, 1995, the NRC issued a low-power testing license (No. NPF-20) that authorized TVA to operate Watts Bar, Unit 1, at up to 5 percent of rated thermal power. On February 7, 1996, the NRC issued an FPOL (No. NPF-90) that authorized TVA to operate Watts Bar, Unit 1, at up to 100 percent of rated thermal power, with an expiration date 40 years from the date of the issuance of the low-power license.

The proposed action would allow the licensee to recapture the 90 days during which Watts Bar, Unit 1, operated at low power, and extend the license expiration date to February 7, 2036. The proposed action is consistent with NRC policy established in the Staff Requirements Memorandum (SRM) for SECY-98-296, “Staff Requirements – SECY-98-296 - Agency Policy Regarding Licensee Recapture of Low-Power Testing or Shutdown Time for Nuclear Power Plants,” dated March 30, 1999, and SECY-98-296, “Agency Policy Regarding Licensee Recapture of Low-Power Testing or Shutdown Time for Nuclear Power Plants,” dated December 21, 1998.

### *Environmental Impacts of the Proposed Action*

NUREG-0498, “Final Environmental Statement related to the operation of Watts Bar Nuclear Plant, Units Nos. 1 and 2” (FES-OL), dated December 1978, concluded that Watts Bar, Units 1 and 2, could operate with minimal environmental impacts. Supplement 1 to NUREG-0498, which was issued to re-examine the issues associated

with the environmental review before issuance of an operating license, concluded that the changes in the design of the Watts Bar plant, the proposed operations, and the affected environment, including population and demographics, land use, water use, regional climatology and site meteorology, background radiation, terrestrial environment, and the aquatic environment since the publication of the 1978 FES-OL, are not significant and, therefore, do not result in a significant change in the environmental impacts described in the 1978 FES-OL.

The proposed action would not affect the design or operation of Watts Bar, Unit 1, and does not involve any plant modifications or increase the licensed power for the plant. Therefore, the proposed action would have no direct impact on land use or water resources, including terrestrial and aquatic biota. In addition, the proposed action would have no noticeable effect on socioeconomic and environmental justice conditions in the region, and no adverse effect on historic and cultural resources. Similarly, the proposed action would not significantly increase the probability or consequences of accidents or change the types of effluents released offsite. Because the proposed action would extend the operating license by 90 days, which represents only a small fraction of the 40-year operating life considered in NUREG-0498, there would be no significant increase in the amount of any effluent released or waste generated, and no significant increase in occupational or public radiation exposure. The additional quantities of effluents and waste generated during the proposed 90-day period of extension would be nominal and in accordance with current operating requirements and regulatory limits. Therefore, the NRC staff concludes that there would be no significant radiological or non-radiological environmental impacts associated with the proposed action. The proposed action would have no effect on air pollutant emissions or ambient air quality. Therefore, the proposed action would have no significant effect on the quality of the human environment.

*Environmental Impacts of the Alternatives to the Proposed Action*

As an alternative to the proposed action, the NRC staff considered denial of the amendment request (i.e., the “no-action” alternative). Denial of the amendment request would result in 90 fewer days of operation because the FPOL would expire on its current expiration date of November 9, 2035. Therefore, there would be no change in current environmental impacts. Accordingly, the environmental impacts from the proposed action and the no-action alternative would be similar.

#### *Alternative Use of Resources*

There are no unresolved conflicts concerning alternative uses of available resources under the proposed action.

#### *Agencies and Persons Consulted*

The NRC staff did not enter into consultation with any other Federal agencies or persons regarding the environmental impact of the proposed action. However, in accordance with 10 CFR 50.91, “Notice for public comment; State consultation,” the licensee provided copies of its application to the State of Tennessee. The NRC staff consulted with the State of Tennessee on November 1, 2024, regarding its proposed determination of no significant hazards consideration, and the State had no comments.

### **III. Finding of No Significant Impact**

TVA requested a license amendment to revise the expiration date of the Watts Bar, Unit 1, license such that it would expire 40 years from the date of issuance of the FPOL, as permitted by 10 CFR 50.51. The proposed action is in accordance with the licensee’s application dated April 17, 2024.

Consistent with 10 CFR 51.21, the NRC conducted an environmental review of the proposed action and, in accordance with 10 CFR 51.32(a)(4), this FONSI incorporates the EA in Section II of this document by reference. As stated earlier, the NRC staff concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the NRC staff has determined an environmental impact statement for the proposed action is not warranted.

This FONSI and related environmental documents are available for public inspection online in the ADAMS Public Documents collection at <https://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's PDR reference staff by telephone at 1-800-397-4209 or 301-415-4737, or by email to [PDR.Resource@nrc.gov](mailto:PDR.Resource@nrc.gov).

#### IV. Availability of Documents

The documents identified in the following table are available to interested persons through ADAMS.

DOCUMENT DESCRIPTION	ADAMS ACCESSION NO.
Watts Bar Nuclear Plant, Unit 1, License Amendment Request to Recapture Low-Power Testing Time (WBN-TS-23-19) dated April 17, 2024.	ML24108A015
Watts Bar Nuclear Plant, Unit 1, Issuance of Low-Power Operating License No. NPF-20, dated November 9, 1995.	ML020780254
Watts Bar Nuclear Plant, Unit 1, Issuance of Full-Power Operating License No. NPF-20, dated February 7, 1996.	ML073460320 (Package)
SRM for SECY-98-296, "Staff Requirements – SECY-98-296 - Agency Policy Regarding Licensee Recapture of Low-Power Testing or Shutdown Time for Nuclear Power Plants," dated March 30, 1999.	ML20205C095
SECY-98-296, "Agency Policy Regarding Licensee Recapture of Low-Power Testing or Shutdown Time for Nuclear Power Plants," dated December 21, 1998.	ML992870025
NUREG-0498, "Final Environmental Statement related to the operation of Watts Bar Nuclear Plant, Units Nos. 1 and 2" (FES-OL), dated December 1978.	ML082560457 (Package)
Supplement 1 to NUREG-0498, dated April 1995.	ML081430592

Dated: November 21, 2024.

For the Nuclear Regulatory Commission.

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[FR Doc. 2024-27667 Filed: 11/25/2024 8:45 am; Publication Date: 11/26/2024]