



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

January 14, 2010

Mr. R. M. Krich  
Vice President, Nuclear Licensing  
Tennessee Valley Authority  
3R Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

SUBJECT: WATTS BAR NUCLEAR PLANT, UNITS 1 AND 2 – ENVIRONMENTAL  
ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT  
(TAC NOS. ME2601 AND ME2602)

Dear Mr. Krich:

Enclosed is a copy of the Environmental Assessment and Finding of No Significant Impact related to your application for exemption dated November 6, 2009, as supplemented by letter dated January 11, 2010. Portions of the November 6, 2009, submittal contain safeguards and security sensitive information and, therefore, are not available to the public. The proposed exemption from the specific requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 73, for the Watts Bar Nuclear Plant, Units 1 and 2 would extend the deadline from March 31, 2010, until September 24, 2012, for the implementation of certain measures in 10 CFR Part 73.

The assessment is being forwarded to the Office of the Federal Register for publication.

Sincerely,

A handwritten signature in black ink, appearing to read "John G. Lamb".

John G. Lamb, Senior Project Manager  
Watts Bar Special Projects Branch  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-390 and 50-391

Enclosure:  
Environmental Assessment

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NUCLEAR REGULATORY COMMISSION  
TENNESSEE VALLEY AUTHORITY  
DOCKET NOS. 50-390 AND 50-391  
WATTS BAR NUCLEAR PLANT, UNITS 1 AND 2  
ENVIRONMENTAL ASSESSMENT AND FINDING OF  
NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of an Exemption, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 73.5, "Specific exemptions," from the implementation date for certain new requirements of 10 CFR Part 73, "Physical protection of plants and materials," for Facility Operating License No. NPF-90, issued to Tennessee Valley Authority (TVA, the licensee), for operation of the Watts Bar Nuclear Plant (WBN), Unit 1, located in Rhea County, Tennessee. This consideration is also applicable to Unit 2, currently under licensing process. In accordance with 10 CFR 51.21, the NRC prepared an environmental assessment documenting its finding. The NRC concluded that the proposed actions will have no significant environmental impact.

ENVIRONMENTAL ASSESSMENT

Identification of the Proposed Action:

The proposed action would exempt the TVA from the required implementation date of March 31, 2010, for several new requirements of 10 CFR Part 73. Specifically, WBN, Units 1 and 2 would be granted an exemption from being in full compliance with certain new requirements contained in 10 CFR 73.55 by the March 31, 2010, deadline. TVA has proposed an alternate full compliance implementation date of September 24, 2012, approximately two and

half years beyond the date required by 10 CFR Part 73. The proposed action, an extension of the schedule for completion of certain actions required by the revised 10 CFR Part 73, does not involve any physical changes to the reactor, fuel, plant structures, support structures, water, or land at the WBN, Units 1 and 2 site that were not previously considered in the environmental assessment and finding of no significant impact made by the Commission in promulgating its revisions to 10 CFR Part 73, Power Reactor Security Requirements, 74 FR 13926, 13967 (March 27, 2009).

The proposed action is in accordance with the licensee's application dated November 6, 2009, as supplemented by letter dated January 11, 2010.

The Need for the Proposed Action:

The proposed action is needed to provide the licensee with additional time to perform the required upgrades to the WBN, Units 1 and 2 security system because they involve new components and engineering that cannot be obtained or completed by the March 31, 2010, implementation date.

Environmental Impacts of the Proposed Action:

The NRC has completed its environmental assessment of the proposed exemption. The staff has concluded that the proposed action to extend the implementation deadline would not significantly affect plant safety and would not have a significant adverse effect on the probability of an accident occurring.

The proposed action would not result in an increased radiological hazard beyond those previously analyzed in the environmental assessment and finding of no significant impact made by the Commission in promulgating its revisions to 10 CFR Part 73 (74 FR 13967). There will be no change to radioactive effluents that affect radiation exposures to plant workers and members of the public. Therefore, no changes or different types of radiological impacts are expected as a result of the proposed exemption.

The proposed action does not result in changes to land use or water use, or result in changes to the quality or quantity of non-radiological effluents. No changes to the National Pollution Discharge Elimination System permit are needed. No effects on the aquatic or terrestrial habitat in the vicinity of the plant, or to threatened, endangered, or protected species under the Endangered Species Act, or impacts to essential fish habitat covered by the Magnuson-Steven's Act are expected. There are no impacts to the air or ambient air quality.

There are no impacts to historical and cultural resources. There would be no impact to socioeconomic resources. Therefore, no changes to or different types of non-radiological environmental impacts are expected as a result of the proposed exemption.

Accordingly, the NRC concludes that there are no significant environmental impacts associated with the proposed action.

The licensee currently maintains a security system acceptable to the NRC and will continue to provide acceptable physical protection of the WBN, Units 1 and 2 as TVA implements certain new requirements in 10 CFR Part 73. Therefore, the extension of the implementation date of the new requirements of 10 CFR Part 73 to September 24, 2012, would not have any significant environmental impacts.

The NRC staff's safety evaluation will be provided in the exemption that will be issued as part of the letter to the licensee approving the exemption to the regulation, if granted.

Environmental Impacts of the Alternatives to the Proposed Action:

As an alternative to the proposed actions, the NRC staff considered denial of the proposed actions (i.e., the "no-action" alternative). Denial of the exemption request would result in no change in current environmental impacts. If the proposed action was denied, the licensee would have to comply with the March 31, 2010, implementation deadline. The environmental impacts of the proposed exemption and the "no action" alternative are similar.

Alternative Use of Resources:

The action does not involve the use of any different resources than those considered in the Final Environmental Statement for the WBN, Units 1 and 2, NUREG-0498, dated December 1978, and a supplement to the Final Environmental Statement (NUREG-0498 Supplement 1), dated April 1995.

Agencies and Persons Consulted:

In accordance with its stated policy, on December 24, 2009, the NRC staff consulted with the Tennessee State official, Elizabeth Flanagan of the Tennessee Bureau of Radiological Health, regarding the environmental impact of the proposed action. The State official had no comments.

FINDING OF NO SIGNIFICANT IMPACT

On the basis of the environmental assessment, the NRC concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the NRC has determined not to prepare an environmental impact statement for the proposed action.

For further details with respect to the proposed action, see the licensee's letter dated November 6, 2009, as supplemented by letter dated January 11, 2010. Portions of the November 6, 2009, submittal contain safeguards and security sensitive information and, accordingly, are not available to the public. Other parts of these documents may be examined, and/or copied for a fee, at the NRC's Public Document Room (PDR), located at One White Flint North, Public File Area O-1F21, 11555 Rockville Pike (first floor), Rockville, Maryland 20852. Publicly available records will be accessible electronically from the Agencywide Document Access and Management System (ADAMS) Public Electronic Reading Room on the Internet at the NRC Website: <http://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 PDR Reference staff by telephone at 1-800-397-4209 or 301-415-4737, or send an e-mail to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov).

Dated at Rockville, Maryland, this 14th day of January 2010.

FOR THE NUCLEAR REGULATORY COMMISSION

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John G. Lamb, Senior Project Manager  
Watts Bar Special Projects Branch  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

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John G. Lamb, Senior Project Manager  
Watts Bar Special Projects Branch  
Division of Operating Reactor Licensing  
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**ADAMS Accession Nos.** Letter ML093580182 EA FRN ML093580186

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