



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

October 20, 2016

LICENSEE: Tennessee Valley Authority

FACILITY: Watts Bar Nuclear Plant, Unit 2

SUBJECT: SUMMARY OF SEPTEMBER 13, 2016, MEETING WITH TENNESSEE VALLEY AUTHORITY REGARDING WATTS BAR NUCLEAR PLANT UNIT 2 TRITIUM PRODUCTION PLANNING

On September 13, 2016, a Category 1 public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of Tennessee Valley Authority (TVA) at NRC Headquarters, Two White Flint North, 11545 Rockville Pike, Rockville, Maryland. The purpose of this meeting was for TVA staff to present information regarding its plans and schedule for requesting authorization to load tritium producing burnable absorber rods (TPBARs) in the Watts Bar Nuclear Plant (WBN), Unit 2, reactor. The meeting notice and agenda, dated August 29, 2016, are available in the Agencywide Documents Access and Management System (ADAMS) under Accession No. ML16252A164. A list of attendees for the meeting is enclosed.

TVA staff provided a presentation on the basis for the request, project scope, licensing strategy, and proposed schedule for the project. The presentation is available in ADAMS under Accession No. ML16257A020.

TVA staff stated that the planned request is in response to a request from the U.S. Department of Energy (DOE) to TVA to expand tritium production to support U.S. weapons stockpile needs. TVA staff described the project scope, including plant modifications and engineering evaluations to be completed to support the request. TVA staff also identified key planning assumptions, including lessons learned from WBN, Unit 1, TPBAR licensing reviews and recent generic issues associated with reactor vessel and fuel rack analyses. Key milestones for the project include a planned submittal in November 2017, requested amendment issuance by May 2019, and beginning tritium production in WBN, Unit 2, in November 2020.

The NRC staff in attendance provided observations on key issues that should be fully addressed in the submittal, including control of effluent releases, post-LOCA (loss-of coolant accident) and fuel rack criticality analyses, affect of proposed plant modifications on required manual operator actions, and information needed to support the staff's environmental review of the proposed amendment.

No regulatory decisions were made at the meeting.

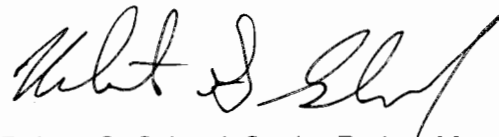
Several members of the public observed the meeting via telephone and provided questions or comments regarding environmental impact evaluations, monitoring of tritium releases, and expressed objections to the use of civilian power reactors for production of weapons material.

Members of the public questioned the NRC staff about the environmental review process that would be carried out to support the staff's review of the proposed tritium production at WBN, Unit 2. Some members of the public expressed concern that the NRC did not consider tritium production in the final environmental statement prepared for the licensing of WBN, Unit 2. The NRC staff responded that it would conduct an independent environmental review in the form of an environmental assessment for the requested license amendment and would consider prior findings documented in DOE's supplemental environmental impact statement related to the tritium production program, which TVA stated would be adopted.

Members of the public also questioned the NRC staff about monitoring programs in place to measure the air dispersion of tritium, deposition in soil, and uptake in vegetation. The NRC staff responded that monitoring programs conducted by TVA are described in the Offsite Dose Calculation Manual, and stated that TVA's monitoring programs include collection and monitoring of local vegetation for radioactivity.

The latest Watts Bar Annual Radioactive Effluent Release Report, dated April 29, 2016, is available in ADAMS under Accession No. ML16120A330. TVA's latest Annual Radiological Environmental Operating Report, dated May 12, 2016, is available in ADAMS under Accession No. ML16133A535. These and prior years' reports for all operating nuclear power plants are available via the NRC's public Web site at <http://www.nrc.gov/reactors/operating/ops-experience/tritium/plant-info.html>. General information regarding radiation monitoring at nuclear power plants is available at <http://www.nrc.gov/about-nrc/radiation/protects-you/radiation-monitoring.html>. The NRC periodically conducts focused inspections of nuclear power plants' environmental monitoring programs to verify that licensees are in compliance with NRC regulations.

Please direct any inquiries to me at 301-415-6020 or via e-mail at Robert.Schaaf@nrc.gov



Robert G. Schaaf, Senior Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-391

Enclosure
List of Attendees

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MEETING ATTENDANCE LIST

Licensee: Tennessee Valley Authority (TVA) **Plant:** Watts Bar Nuclear Plant, Unit 2
Subject: Information Meeting – Unit 2 **Date:** September 19, 2016
 Tritium Production Planning
Location: U.S. Nuclear Regulatory Commission **Time:** 9:00 a.m. – 10:30 a.m.
 (NRC) Headquarters, Two White Flint
 North Room T-7A01

NAME	TITLE	ORGANIZATION
Jeanne Dion	Acting Branch Chief	NRC/Office of Nuclear Reactor Regulation (NRR)/Division of Operating Reactor Licensing (DORL)/Plant Licensing Branch II-2 (LPLII-2)
Robert Schaaf	Senior Project Manager	NRC/NRR/DORL/LPLII-2
Farideh Saba	Senior Project Manager	NRC/NRR/DORL/LPLII-2
Roger Pedersen	Senior Health Physicist	NRC/NRR/Division of Risk Assessment (DRA)/Radiation Protection and Consequence Branch (ARCB)
Kristy Bucholtz*	Reactor Engineer	NRC/NRR/DRA/ARCB
Vicotoria Huckabay	Human Factors Engineer	NRC/NRR/DRA/Probabilistic Risk Assessment Operations & Human Factors Branch
Scott Krepel	Nuclear Engineer	NRC/NRR/Division of Safety Systems (DSS)/ Nuclear Performance & Code Review Branch
Jennifer Whitman*	Reactor Engineer	NRC/NRR/DSS/Reactor Systems Branch

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NAME	TITLE	ORGANIZATION
Kevin Folk	Acting Branch Chief	NRC/NRR/Division of License Renewal (DLR)/Environmental Review & Project Management Branch (RERP)
Bill Rautzen	Health Physicist	NRC/NRR/DLR/RERP
Santiago Aguilar	Export/Import Licensing Analyst	NRC/Office of Nuclear Material Safety and Safeguards/Division of Fuel Cycle Safety, Material Control and Accounting Branch
Erin Henderson	Senior Manager, Regulatory Operations	TVA
David Brown	General Manager, Reactor Engineering & Fuels	TVA
Mark Burzynski	Fuels Licensing Support	TVA
Jeff McGuire	Tritium Program Manager	TVA
Ben Hammergren*	Program Manager, Corporate Nuclear Licensing	TVA
Thomas Rotella	Deputy Program Manager, Office of Tritium & Materials Management	National Nuclear Security Administration (NNSA)
Curtis Chamblin*	General Engineer	NNSA
Cyndi Specht*	Leidos, Contractor	NNSA

NAME	TITLE	ORGANIZATION
Cheryl Thornhill	Project Manager, Tritium Sustainment Program	Pacific Northwest National Laboratory
Gary Morgan*		Public
Sara Barzcak*		Southern Alliance for Clean Energy
Donald Safer*		Tennessee Environmental Council
Gary Wright*		Public

*via teleconference

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/RA/
Robert G. Schaaf, Senior Project Manager
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KBucholtz, NRR	VHuckabay, NRR	SKrepeel, NRR
JWhitman, NRR	KFolk, NRR	BRautzen, NRR

**ADAMS Accession Nos.: Meeting Notice: ML16252A164; Meeting Summary: ML16277A003;
Presentation: ML16257A020**

OFFICE	DORL/LP2-2/PM	DORL/LP2-2/LA	DORL/LP2-2/BC(A)	DORL/LP2-2/PM
NAME	RSchaaf	BClayton	JDion	RSchaaf
DATE	10/18/2016	10/18/2016	10/18/2016	10/20/2016