



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION II  
SAM NUNN ATLANTA FEDERAL CENTER  
61 FORSYTH STREET, SW, SUITE 23T85  
ATLANTA, GEORGIA 30303-8931

September 1, 2009

Mr. Preston D. Swafford  
Chief Nuclear Officer and Executive Vice President  
Tennessee Valley Authority  
3R Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

**SUBJECT: MID-CYCLE PERFORMANCE REVIEW AND INSPECTION PLAN – WATTS  
BAR NUCLEAR STATION UNIT 1**

Dear Mr. Swafford:

On August 12, 2009, the NRC staff completed its performance review of the Watts Bar Nuclear Station, Unit 1. Our technical staff reviewed performance indicators (PIs) for the most recent quarter and inspection results for the period from July 1, 2008 through June 30, 2009. The purpose of this letter is to inform you of our assessment of your safety performance during this period and our plans for future inspections at your facility.

This performance review and the enclosed inspection plan do not include security information. A separate letter designated and marked as "Official Use Only – Security Related Information" will include the Security cornerstone performance review and resultant inspection plan.

Plant performance for the most recent quarter, at Watts Bar Unit 1, was within the Licensee Response Column of the NRC's Action Matrix, based on all inspection findings being classified as having very low safety significance (Green) and all PIs indicating performance at a level requiring no additional NRC oversight (Green). Therefore, we plan to conduct reactor oversight process (ROP) baseline inspections at your facility.

The enclosed inspection plan details the inspections, less those related to physical protection, scheduled through December 31, 2010. In addition to ROP baseline inspection activities, we also plan on conducting several infrequently performed inspections, which include Temporary Instruction (TI) 2515/172, Reactor Coolant System Dissimilar Metal Butt Welds; TI 2515/173, Review of the Implementation of the Industry Ground Water Protection Volunteer Initiative; and operator licensing examinations. The inspection plan is provided to minimize the resource impact on your staff and to allow for the resolution of any scheduling conflicts and personnel availability issues well in advance of inspector arrival onsite. Routine resident inspections are not listed due to their ongoing and continuous nature. The inspections in the last nine months of the inspection plan are tentative and may be revised at the end-of-cycle review meeting.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

As you may know, the NRC is currently evaluating the scope and frequency of all the baseline inspection procedures. If the results of the evaluation, or any other circumstances, cause us to change the inspection plan, we will contact you to discuss the change as soon as possible. Please contact me at 404-562-4662 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

*/RA/*

Eugene F. Guthrie, Chief  
Reactor Projects Branch 6  
Division of Reactor Projects

Docket Nos. 50-390, 50-391  
License No. NPF-90 and Construction  
Permit No. CPPR-92

Enclosure: Watts Bar Inspection/Activity Plan

cc w/encl: (See page 3)

cc w/encl:  
Gordon P. Arent  
New Generation Licensing Manager  
Watts Bar Nuclear Plant  
Tennessee Valley Authority  
Electronic Mail Distribution

Masoud Bajestani  
Vice President Watts Bar Unit 2  
Watts Bar Nuclear Plant  
Tennessee Valley Authority  
Electronic Mail Distribution

Ashok S. Bhatnagar, Senior Vice President  
Nuclear Generation Development and  
Construction  
Tennessee Valley Authority  
Electronic Mail Distribution

Michael K. Brandon, Manager  
Licensing and Industry Affairs  
Watts Bar Nuclear Plant  
Electronic Mail Distribution

Preston D. Swafford  
Chief Nuclear Officer and Executive Vice  
President  
Tennessee Valley Authority  
Electronic Mail Distribution

William R. Campbell, Senior Vice President  
Fleet Engineering  
Tennessee Valley Authority  
Electronic Mail Distribution

Thomas Coutu, Vice President  
Nuclear Support  
Tennessee Valley Authority  
Electronic Mail Distribution

General Counsel  
Tennessee Valley Authority  
Electronic Mail Distribution

Gregory A. Boerschig, Plant Manager  
Watts Bar Nuclear Plant  
Tennessee Valley Authority  
Electronic Mail Distribution

Larry E. Nicholson, General Manager  
Performance Improvement  
Tennessee Valley Authority  
Electronic Mail Distribution

Michael A. Purcell  
Senior Licensing Manager  
Nuclear Power Group  
Tennessee Valley Authority  
Electronic Mail Distribution

Michael J. Lorek  
Vice President - Nuclear Oversight  
Tennessee Valley Authority  
Electronic Mail Distribution

Michael D. Skaggs, Site Vice President  
Watts Bar Nuclear Plant  
Tennessee Valley Authority  
Electronic Mail Distribution

Fredrick C. Mashburn, (Acting) Manager  
Corporate Nuclear Licensing and Industry  
Affairs  
Tennessee Valley Authority  
Electronic Mail Distribution

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

Robert J. Whalen  
Tennessee Valley Authority  
3R Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-280

Senior Resident Inspector  
Watts Bar Nuclear Plant  
U.S. Nuclear Regulatory Commission  
1260 Nuclear Plant Road  
Spring City, TN 37381-2000

(cc w/encl cont'd – see next page)

cc w/encl cont'd:  
County Executive  
375 Church Street  
Suite 215  
Dayton, TN 37321

County Mayor  
P.O. Box 156  
Decatur, TN 37322

Lawrence E. Nanney, Director  
Division of Radiological Health  
TN Dept. of Environment & Conservation  
Electronic Mail Distribution

James H. Bassham, Director  
Tennessee Emergency Management Agency  
Electronic Mail Distribution

Ann Harris  
341 Swing Loop  
Rockwood, TN 37854

**Watts Bar**  
**Inspection / Activity Plan**  
**09/01/2009 - 12/31/2010**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>PSB1-RP - RADIATION PROTECTION PUBLIC INSPECTION</b>		<b>3</b>
1	08/31/2009	09/04/2009	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment	
1	08/31/2009	09/04/2009	IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems	
1	08/31/2009	09/04/2009	IP 7112203	Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control Program	
1	08/31/2009	09/04/2009	IP 71151	Performance Indicator Verification	
			<b>EB3-HS - HEAT SINK</b>		<b>1</b>
1	09/14/2009	09/18/2009	IP 7111107T	Heat Sink Performance	
			<b>EB3ISI - INSERVICE INSPECTION</b>		<b>2</b>
1	09/28/2009	10/02/2009	IP 7111108P	Inservice Inspection Activities - PWR	
			<b>EB3TI172 - TI-172 RCS DM BUTT WELDS</b>		<b>1</b>
1	09/28/2009	10/02/2009	IP 2515/172	Reactor Coolant System Dissimilar Metal Butt Welds	
			<b>PSB1-RP - RP ACCESS CONTROLS INSPECTION (OUTAGE)</b>		<b>1</b>
1	10/05/2009	10/09/2009	IP 7112101	Access Control to Radiologically Significant Areas	
1	10/05/2009	10/09/2009	IP 71151	Performance Indicator Verification	
			<b>OL EXAM - INITIAL EXAM PREP</b>		<b>6</b>
1	11/09/2009	11/13/2009	V23317	WATTS BAR/NOVEMBER 2009 EXAM AT POWER FACILITIES	
			<b>OL EXAM - INITIAL EXAM</b>		<b>6</b>
1	11/30/2009	12/04/2009	V23317	WATTS BAR/NOVEMBER 2009 EXAM AT POWER FACILITIES	
			<b>CDBI - COMPONENT DESIGN BASES INSPECTION</b>		<b>8</b>
1	02/15/2010	02/19/2010	IP 7111121	Component Design Bases Inspection	
1	03/01/2010	03/05/2010	IP 7111121	Component Design Bases Inspection	
1	03/15/2010	03/19/2010	IP 7111121	Component Design Bases Inspection	
1	03/29/2010	04/02/2010	IP 7111121	Component Design Bases Inspection	
			<b>PSB1-RP - RP GROUNDWATER PROTECTION</b>		<b>2</b>
1	06/07/2010	06/11/2010	IP 2515/173	Review of the Implementation of the Industry Ground Water Protection Voluntary Initiative	
			<b>PSB1EP - EMERGENCY PREPAREDNESS INSPECTION</b>		<b>1</b>
1	06/07/2010	06/11/2010	IP 7111402	Alert and Notification System Testing	
1	06/07/2010	06/11/2010	IP 7111403	Emergency Response Organization Augmentation Testing	
1	06/07/2010	06/11/2010	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1	06/07/2010	06/11/2010	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
1	06/07/2010	06/11/2010	IP 71151	Performance Indicator Verification	
			<b>OL EXAM - INITIAL EXAM PREP</b>		<b>9</b>
1	08/09/2010	08/13/2010	V23328	WATTS BAR/AUGUST 2010 EXAM AT POWER FACILITIES	
			<b>OL EXAM - INITIAL EXAM - WEEK1</b>		<b>7</b>
1	08/23/2010	08/27/2010	V23328	WATTS BAR/AUGUST 2010 EXAM AT POWER FACILITIES	

This report does not include INPO and OUTAGE activities.  
This report shows only on-site and announced inspection procedures.

Enclosure

**Watts Bar**  
**Inspection / Activity Plan**  
**09/01/2009 - 12/31/2010**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>OL EXAM - INITIAL EXAM - WEEK 2</b>		<b>7</b>
1	08/30/2010	09/03/2010	V23328	WATTS BAR/AUGUST 2010 EXAM AT POWER FACILITIES	
			<b>FP - TFPI</b>		<b>5</b>
1	09/20/2010	09/24/2010	IP 7111105T	Fire Protection [Triennial]	
1	10/04/2010	10/08/2010	IP 7111105T	Fire Protection [Triennial]	
			<b>PSB1-RP - RP OCCUPATIONAL BASELINE WEEK1</b>		<b>2</b>
1	10/18/2010	10/22/2010	IP 7112101	Access Control to Radiologically Significant Areas	
1	10/18/2010	10/22/2010	IP 7112102-7112102R	ALARA - Required	
1	10/18/2010	10/22/2010	IP 7112202	Radioactive Material Processing and Transportation	
1	10/18/2010	10/22/2010	IP 71151	Performance Indicator Verification	
			<b>PSB1-RP - RP OCCUPATIONAL BASELINE WEEK 2</b>		<b>3</b>
1	11/01/2010	11/05/2010	IP 7112101	Access Control to Radiologically Significant Areas	
1	11/01/2010	11/05/2010	IP 7112102-7112102R	ALARA - Required	
1	11/01/2010	11/05/2010	IP 7112202	Radioactive Material Processing and Transportation	
1	11/01/2010	11/05/2010	IP 71151	Performance Indicator Verification	
			<b>OL RQ - REQUAL INSPECTION</b>		<b>2</b>
1	11/15/2010	11/19/2010	IP 7111111B	Licensed Operator Requalification Program	

This report does not include INPO and OUTAGE activities.  
This report shows only on-site and announced inspection procedures.

Enclosure