



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION II  
245 PEACHTREE CENTER AVENUE NE, SUITE 1200  
ATLANTA, GEORGIA 30303-1257

September 1, 2010

Mr. R. M. Krich  
Vice President, Nuclear Licensing  
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. Krich:

On August 12, 2010, 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, 2009 through June 30, 2010. 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 Nuclear Station, 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, 2011. In addition to ROP baseline inspection activities, we plan on conducting several infrequently performed inspections which include: Operator Licensing Examinations, and Temporary Instruction (TI) 2515/177, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems (NRC Generic Letter 2008-01)" 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 404-997-4662 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  
License No. NPF-90

Enclosure: Watts Bar Inspection/Activity Plan

cc w/encl: (See page 3)

TVA

3

cc w/encl:

D. E. Grissette  
Vice President  
Watts Bar Nuclear Plant  
Tennessee Valley Authority  
P.O. Box 2000  
Spring City, TN 37381

G. A. Boerschig  
Plant Manager  
Watts Bar Nuclear Plant  
Tennessee Valley Authority  
P.O. Box 2000  
Spring City, TN 37381

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

E. J. Vigluicci  
Assistant General Counsel  
Tennessee Valley Authority  
6A West Tower  
400 West Summit Hill Drive  
Knoxville, TN 37902

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

Division of Radiological Health  
TN Dept. of Environment & Conservation  
401 Church Street  
Nashville, TN 37243-1532

Ann Harris  
341 Swing Loop  
Rockwood, TN 37854

## Watts Bar

## Inspection / Activity Plan

09/01/2010 - 12/31/2011

| Unit Number | Planned Dates Start | Planned Dates End | Inspection Activity                                     | Title   | No. of Staff on Site |
|-------------|---------------------|-------------------|---|---|----------------------|
|             |                     |                   | <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>6</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>OL RQ - REQUAL INSPECTION</b>                        |   | <b>4</b>             |
| 1           | 11/15/2010          | 11/19/2010        | IP 7111111B   | Licensed Operator Requalification Program   |                      |
|             |                     |                   | <b>PI&amp;R - PROBLEM IDENTIFICATION AND RESOLUTION</b> |   | <b>4</b>             |
| 1           | 01/10/2011          | 01/14/2011        | IP 71152B   | Identification and Resolution of Problems   |                      |
| 1           | 01/24/2011          | 01/28/2011        | IP 71152B   | Identification and Resolution of Problems   |                      |
|             |                     |                   | <b>PSB1-RP - RP OCCUPATIONAL WEEK 1</b>                 |   | <b>3</b>             |
| 1           | 03/21/2011          | 03/25/2011        | IP 71124.01   | Radiological Hazard Assessment and Exposure Controls  |                      |
| 1           | 03/21/2011          | 03/25/2011        | IP 71124.02   | Occupational ALARA Planning and Controls  |                      |
| 1           | 03/21/2011          | 03/25/2011        | IP 71124.03   | In-Plant Airborne Radioactivity Control and Mitigation  |                      |
| 1           | 03/21/2011          | 03/25/2011        | IP 71124.08   | Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation |                      |
| 1           | 03/21/2011          | 03/25/2011        | IP 71151  | Performance Indicator Verification  |                      |
|             |                     |                   | <b>EB3ISI - UNIT 1 INSERVICE INSPECTION</b>             |   | <b>1</b>             |
| 1           | 03/28/2011          | 04/01/2011        | IP 7111108P   | Inservice Inspection Activities - PWR   |                      |
|             |                     |                   | <b>PSB1-RP - RP OCCUPATIONAL WEEK 2</b>                 |   | <b>2</b>             |
| 1           | 04/04/2011          | 04/08/2011        | IP 71124.01   | Radiological Hazard Assessment and Exposure Controls  |                      |
| 1           | 04/04/2011          | 04/08/2011        | IP 71124.02   | Occupational ALARA Planning and Controls  |                      |
| 1           | 04/04/2011          | 04/08/2011        | IP 71124.03   | In-Plant Airborne Radioactivity Control and Mitigation  |                      |
| 1           | 04/04/2011          | 04/08/2011        | IP 71124.08   | Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation |                      |
| 1           | 04/04/2011          | 04/08/2011        | IP 71151  | Performance Indicator Verification  |                      |
|             |                     |                   | <b>OL EXAM - INITIAL EXAM PREP</b>                      |   | <b>8</b>             |
| 1           | 05/16/2011          | 05/20/2011        | V23351  | WATTS BAR/JUNE 2011 EXAM AT POWER FACILITIES  |                      |
|             |                     |                   | <b>OL EXAM - INITIAL EXAM - WEEK 1</b>                  |   | <b>8</b>             |
| 1           | 06/06/2011          | 06/10/2011        | V23351  | WATTS BAR/JUNE 2011 EXAM AT POWER FACILITIES  |                      |
|             |                     |                   | <b>OL EXAM - INITIAL EXAM - WEEK 2</b>                  |   | <b>8</b>             |
| 1           | 06/13/2011          | 06/17/2011        | V23351  | WATTS BAR/JUNE 2011 EXAM AT POWER FACILITIES  |                      |
|             |                     |                   | <b>OL EXAM - INITIAL EXAM PREP</b>                      |   | <b>3</b>             |
| 1           | 09/19/2011          | 09/23/2011        | V23362  | WATTS BAR / OCTOBER 2011 EXAM AT POWER FACILITIES   |                      |
|             |                     |                   | <b>OL EXAM - INITIAL EXAM - WEEK 1</b>                  |   | <b>3</b>             |
| 1           | 10/17/2011          | 10/21/2011        | V23362  | WATTS BAR / OCTOBER 2011 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**  
**09/01/2010 - 12/31/2011**

| Unit Number | Planned Dates |            | Inspection Activity                             | Title  | No. of Staff on Site |
|-------------|---------------|------------|---|--|----------------------|
|             | Start         | End        |   |  |                      |
|             |               |            | <b>PSB1EP - EMERGENCY PREPAREDNESS EXERCISE</b> |  | <b>3</b>             |
| 1           | 10/17/2011    | 10/21/2011 | IP 7111401                                      | Exercise Evaluation  |                      |
| 1           | 10/17/2011    | 10/21/2011 | IP 7111404                                      | Emergency Action Level and Emergency Plan Changes  |                      |
| 1           | 10/17/2011    | 10/21/2011 | IP 71151  | Performance Indicator Verification   |                      |
|             |               |            | <b>OL EXAM - INITIAL EXAM - WEEK 2</b>          |  | <b>3</b>             |
| 1           | 10/24/2011    | 10/28/2011 | V23362  | WATTS BAR / OCTOBER 2011 EXAM AT POWER FACILITIES  |                      |
|             |               |            | <b>TI-177 - TI-177 GAS INTRUSION</b>            |  | <b>3</b>             |
| 1           | 12/12/2011    | 12/16/2011 | IP 2515/177                                     | Managing Gas Accumulation In Emergency Core Cooling, Decay Heat Removal & Containment Spray System |                      |

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

Enclosure