



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

January 15, 2014

Mr. Joseph W. Shea  
Vice President, Nuclear Licensing  
Tennessee Valley Authority  
1101 Market Street, LP 3D-C  
Chattanooga, TN 37402-2801

**SUBJECT: WATTS BAR NUCLEAR PLANT – NOTIFICATION OF INSPECTION AND  
REQUEST FOR INFORMATION**

Dear Mr. Shea:

From April 14 – 18, 2014, the U.S. Nuclear Regulatory Commission (NRC) will perform a baseline Occupational and Public Radiation Safety inspection at the Watts Bar Nuclear Plant, (NRC Inspection Procedures (IP) 71124.01, "Radiological Hazard Assessment and Exposure Controls"; IP 71124.08 "Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation"; and IP 71151 "Performance Indicator Verification (Occupational and Public Radiation Safety Cornerstones").

To minimize the impact to your onsite resources and to ensure a productive inspection, we have enclosed a request for documents needed for this inspection. It is important that all of these documents are up-to-date and complete, thereby minimizing the number of additional documents requested during the preparation and/or the onsite portions of the inspection. The inspector has requested that the subject informational material be provided in compact disk (CD) format on or before March 21, 2014.

We have discussed the schedule for these inspection activities with your staff and understand that our regulatory contact for this inspection will be Tommy Morgan, 423-365-1401, of your organization. If there are any questions about this inspection or the material requested, please contact the lead inspector Wade Loo at 404-997-4727 ([wade.loo@nrc.gov](mailto:wade.loo@nrc.gov)).

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR ) 2.390 of the NRC's "Rules of Practice," a copy of this letter, and its Enclosure, will be available electronically for public inspection in the NRC Public Document Room, or from the Publicly Available Records (PARS) component of NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm.html> (the Public Electronic Reading Room).

J. Shea

This letter does not contain new or amended information collection requirements subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq). Existing information collection requirements were approved by the Office of Management and Budget, under control numbers 3150-0011, 3150-0014, 3150-0044, and 3150-0135. The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement unless the requesting document displays a currently valid Office of Management and Budget control number.

Sincerely,

**/RA/**

Brian Bonser, Chief  
Plant Support Branch 1  
Division of Reactor Safety

Docket No. 50-390  
License No. NPF-90

Enclosure:  
Pre-Inspection Document Request

cc: Distribution via Listserv

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ADAMS: ☒ Yes    ACCESSION NUMBER: ML14016A093    ☒ SUNSI REVIEW COMPLETE    ☒ FORM 665 ATTACHED

OFFICE	RII:DRS/PSB1	RII:DRS/PSB1					
SIGNATURE	WTL	BRB1					
NAME	M. Loo	B. Bonser					
DATE	1/ 15 /2014	1/ 15 /2014					
E-MAIL COPY	<b>YES</b> NO	<b>YES</b> NO					

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## **Pre-Inspection Document Request**

Occupational and Public Radiation Safety Cornerstones

Licensee: Watts Bar Nuclear Plant

Docket Number: 50-390

Inspection Dates: April 14-18, 2014

Procedures:	71124.01	Radiological Hazard Assessment and Exposure Controls
	71124.08	Radioactive Solid Waste Processing and Radioactive
		Material Handling, Storage, and Transportation
	71151	Performance Indicator Verification

Note: Electronic media is preferred if readily available. The preferred file format is Word, WordPerfect, or searchable “.pdf” files on CDROM. *[Note that the inspectors cannot accept data provided on USB or “flash” drives due to NRC IT security policies.]* An index to the contents is also helpful. For those items requesting a list of documents/areas, the inspectors will select documents/areas from the list for onsite review. If any of the requested information is too burdensome to provide electronically, simply indicate that the requested material is available for onsite review by the inspectors. Experience has shown that a well organized CD leads to a more efficient inspection, and lessens additional burden on licensee staff. During the inspection, the inspectors may request additional documents. If the licensee wishes to use an electronic document service such as CERTRAC or a Shareware portal, the inspectors will try to accommodate for the documentation requested onsite. The initial documents should not require an internet connection to be reviewed.

If you have any questions, please call Wade Loo at 404-997-4727 or ([Wade.Loo@NRC.GOV](mailto:Wade.Loo@NRC.GOV)). Thank you in advance for all your effort in putting together this material.

### **Assistance Requested During Onsite Inspection**

- Identification of work activities available during the inspection for inspector observations, including notification of pre-job briefings for outage activities and preparations for shipments or receipts of radioactive material.
- Health physics (HP) assistance in plant walkdowns assessing radiological hazards and exposure controls (e.g., verifying the posting and locking of entrances to locked high radiation areas and very high radiation areas, spent fuel pool controls, and radioactive material storage areas), and radwaste processing systems.

### **General Information Needed**

- Telephone numbers of contacts for each inspection procedure.
- Radiation Protection organizational chart.
- Electronic copy of applicable chapters of the Updated Final Safety Analysis Report (UFSAR), (e.g., radiation protection program, etc.).

Enclosure

- Corrective Action Program (CAP) procedures.
- List of all performance indicators (PIs) and copies of associated corrective action reports (CARs) for Occupational Exposure Control Effectiveness and Radiological Effluent Technical Specifications/Offsite Dose Calculation Manual (RETS/ODCM) Radiological Effluent Occurrences.
- Audits and self-assessments performed since September 2012 that encompass the areas of, (1) solid radioactive waste processing and (2) shipping and transportation of radioactive material; and since April 2013, (1) radiation protection, (2) access controls, (3) As Low As Reasonably Achievable (ALARA) occupational dose assessment, (4) internal dosimetry, and (5) external dosimetry.
- List of radiation protection procedures.
- Procedure(s) for identifying, notification, tracking, and correcting PI occurrences.
- 10 CFR 61.55 analysis results for dry active waste (DAW) and other waste streams.

#### **71124.01: Radiological Hazard Assessment and Exposure Controls**

- List of current active radiation work permits (RWPs) and RWPs associated with the outage.
- Timeline of major outage activities (e.g., Gantt chart or similar list)
- Site and corporate procedures related to HP controls, (e.g., Posting, labeling, surveys, RWPs, contamination control, HRA/LHRA/VHRA control, key control, control of divers, special controls during fuel offload, hot spots, etc.).
- Site and corporate procedures related to release of personnel and materials, (e.g., release surveys, decontamination, guidance for alarm followup, etc.).
- List of Nationally Tracked Sources and any change-of-ownership transactions.
- Inventory list of all sealed sources stored onsite.
- List of all non-fuel items stored in spent fuel pool.
- Most recent self-assessment or audit covering hazard assessment and exposure controls.
- List of CARs generated since April 2013 related to HP controls. (e.g., radworker error, HP technician error, posting issues, HRA/LHRA/VHRA issues, survey problems, etc.)  
*[This should be a list of corrective action documents containing an AR number and brief description, not full documents.]*

#### **71124.08: Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation**

- Site and corporate procedures associated with radioactive waste processing and handling, storage, and transportation of radioactive material (RAM), including:
  - Storage and handling of RAM including non-RCA and satellite RCA locations
  - Waste stream mixing, sampling, concentration averaging, and use of scaling factors
  - Monitoring impact of long-term storage (e.g., buildup of gases produced by waste decomposition, chemical reactions, container deformation, loss of container integrity, re-release of free-flowing water)
  - Transferring of resin and/or sludge into shipping/disposal containers; dewatering and waste stabilization

- Preparing packages and documentation for shipping RAM
  - List of RAM storage areas, including satellite RCAs
  - Process Control Program
- List of changes to the radioactive waste processing systems since September 2012, and copies of the associated 50.59 screening documentation.
  - Last two 10 CFR Part 61 analyses for each waste stream; including Quality Assurance (QA) data (e.g., in-house vs. vendor lab comparisons, current results vs. database, etc.).
  - Log of RAM shipments (LSA I, II, III; SCO I, II, Type A, or Type B) since September 2012. (The inspectors will select 3-5 packages to review in detail.)
  - List of condition reports (SR and PER) generated since September 2012 related to radioactive solid waste processing and packaging, handling, storage, and shipping of RAM.
  - Training records for all individuals qualified to ship radioactive material/waste demonstrating the requirements of 49 CFR 172 Subpart H (HAZMAT training) have been met. *[This information can be reviewed onsite rather than included with the submittal because it may contain Personally Identifiable Information.]*

#### **71151: Performance Indicator Verification (Occupational and Public Cornerstones)**

- Site and corporate procedures/manuals for gathering and reporting PI data.
- Monthly/Quarterly PI reports since April 2013, and copies of associated Condition Report documents for any Occupational Exposure or RETS/ODCM Radiological Effluent PI events occurrences.
- Liquid and gaseous effluent release permits that specify the quarterly and annual curies released by isotope, and associated public dose assessments from April 2013 to present.
- List of all CARs generated since April 2013 using keywords such as, HRA, LHRA, VHRA, unintended dose, and unlocked LHRA door, etc.
- List of all corrective action reports generated since April 2013 using keywords abnormal/unmonitored effluent release, etc.
- List of all electronic dosimeter (ED) dose rate alarms and ED dose alarms since April 2013.