



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II**

245 PEACHTREE CENTER AVENUE NE, SUITE 1200
ATLANTA, GEORGIA 30303-1257

April 6, 2016

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

**SUBJECT: NOTIFICATION OF WATTS BAR NUCLEAR PLANT COMPONENT DESIGN
BASES INSPECTION – U.S. NUCLEAR REGULATORY COMMISSION
INSPECTION REPORT 05000390/2016009 AND 05000391/2016009**

Dear Mr. Shea:

The purpose of this letter is to notify you that the U.S. Nuclear Regulatory Commission (NRC) Region II staff will conduct a component design bases inspection (CDBI) at your Watts Bar Nuclear Plant during the weeks of July 25 – 29, August 8 – 12, and August 22 – 26, 2016. Mr. Jason Eargle, a Senior Reactor Inspector from the NRC's Region II office, will lead the inspection team. The inspection will be conducted in accordance with Inspection Procedure 71111.21, "Component Design Bases Inspection," issued on November 29, 2013.

The inspection will evaluate the capability of risk-significant /low-margin components to function as designed and to support proper system operation. The inspection will also include a review of selected operator actions, operating experience, and modifications.

During a telephone conversation on April 4, 2016, with Mr. Russell Stroud we confirmed arrangements for an information-gathering site visit and the three-week onsite inspection. The schedule is as follows:

- Information-gathering visit: Week of June 27 – July 1, 2016
- Onsite weeks: July 25 – 29, August 8 – 12, and August 22 – 26, 2016

The purpose of the information-gathering visit is to meet with members of your staff to identify risk-significant components and operator actions. Information and documentation needed to support the inspection will also be identified. Mr. Rudolph Bernhard, a Region II Senior Risk Analyst, will support Mr. Eargle during the information-gathering visit to review probabilistic risk assessment data and identify risk-significant components to be examined during the inspection.

The enclosure lists documents that will be needed prior to the information-gathering visit. Please provide the referenced information to the Region II Office by Monday, June 20, 2016. Additional documents may be requested during the information-gathering visit. The inspectors will try to minimize your administrative burden by specifically identifying only those documents required for inspection preparation. The additional information will need to be available to the team in the Region II office prior to the inspection team's preparation week of July 18, 2016. During the information-gathering trip, Mr. Eargle will also discuss the following inspection support administrative details: (1) availability of knowledgeable plant engineering and licensing personnel to serve as points of contact during the inspection, (2) method of tracking inspector requests during the inspection, (3) licensee computer access, (4) working space, (5) arrangements for site access, and (6) other applicable information.

In accordance with Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding," 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). ADAMS is accessible from the NRC website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Thank you for your cooperation in this matter. If you have any questions, regarding the information requested or the inspection, please contact Mr. Eargle at 404-997-4632 or contact me at 404-997-4607.

Sincerely,

/RA/

Jonathan H. Bartley, Chief
Engineering Branch 1
Division of Reactor Safety

Docket Nos.: 50-390, 50-391
License Nos.: NPF-90, NPF-96

Enclosure:
Information Request for Watts Bar Nuclear Plant,
Component Design Bases Inspection

cc: Distribution via Listserv

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Component Design Bases Inspection

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☒ PUBLICLY AVAILABLE

☐ NON-PUBLICLY AVAILABLE

☐ SENSITIVE

☒ NON-SENSITIVE

ADAMS: ☒ Yes ACCESSION NUMBER: _____

☒ SUNSI REVIEW COMPLETE ☐ FORM 665 ATTACHED

OFFICE	RII:DRS	RII:DRS						
SIGNATURE	JAE1	JHB1						
NAME	J.EARGLE	J.BARTLEY						
DATE	4/5/2016	4/ 6/2016						
E-MAIL COPY?	YES NO	YES NO						

OFFICIAL RECORD COPY
LETTER.DOCX

DOCUMENT NAME: G:\DRS\IEBI\WATTS BAR CDBI 2016\WB CDBI 2016 NOTIFICATION

INFORMATION REQUEST FOR WATTS BAR NUCLEAR PLANT COMPONENT DESIGN BASES INSPECTION

Please provide the information electronically in “.pdf” files, Excel, or other searchable format on CDROM (or FTP site, SharePoint, etc.). The CDROM (or website) should be indexed and hyperlinked to facilitate ease of use.

1. From your most recent probabilistic safety analysis (PSA) excluding external events and fires:
 - a. Two risk rankings of components from your site-specific PSA: one sorted by Risk Achievement Worth (RAW), and the other sorted by Birnbaum Importance
 - b. A list of the top 500 cutsets
 - c. A list of the top 500 LERF contributors
2. From your most recent PSA including external events and fires:
 - a. Two risk rankings of components from your site-specific PSA: one sorted by RAW, and the other sorted by Birnbaum Importance
 - b. A list of the top 500 cutsets
3. Risk ranking of operator actions from your site-specific PSA sorted by RAW. Provide human reliability worksheets for these items.
4. List of time-critical operator actions with a brief description of each action.
5. List of Emergency and Abnormal Operating Procedures revised (significant) since May 1, 2012, with a brief description of each revision.
6. List of components with low-design margins (i.e., pumps closest to the design limit for flow or pressure, diesel generator close to design-required output, heat exchangers close to rated design heat removal, and motor-operated valve risk-margin rankings, etc.).
7. List of station-operating experience evaluations/reviews performed, and documented in the station's corrective action program, for industry events and safety-related equipment failures/vulnerabilities (as communicated by NRC Generic Communications, Industry Communications, 10 CFR Part 21 Notifications, etc.) since May 1, 2012.
8. List and brief description of safety-related structures, systems, or components (SSCs) design modifications implemented since May 1, 2012.
9. List and brief description of common-cause component failures that have occurred since May 1, 2012.

Enclosure

10. List of equipment on the site's Station Equipment Reliability Issues List, including a description of the reason(s) why each component is on that list, and summaries (if available) of your plans to address the issue(s).
11. List and brief description of equipment currently in degraded or nonconforming status as described in NRC Inspection Manual Chapter 0326, Operability Determinations and Functionality Assessments for Conditions Adverse to Quality or Safety, issued January 31, 2014.
12. List and reason for equipment classified in maintenance rule (a)(1) status from May 1, 2012, to present.
13. Copy of Updated Final Safety Analysis Report.
14. Copy of Technical Specification(s).
15. Copy of Technical Specifications Bases.
16. Copy of Technical Requirements Manual(s).
17. List and brief description of Root Cause Evaluations performed since May 1, 2012.
18. Corrective Action Program Procedure(s).
19. Copy of Operability Determination procedure(s).
20. One-line diagram of electrical plant. (Electronic and full size – hard copy week of June 27, 2016)
21. Index and legend for electrical plant one-line diagrams.
22. Piping and instrumentation diagrams (P&IDs) for safety-related systems. (Electronic and 1/2 size – hard copy week of June 27, 2016)
23. Index and Legend for P&IDs.
24. Copies of corrective action documents (i.e. CRs) associated with findings from previous CDBI. (If applicable)
25. Index (procedure number, title, and current revision) of station Emergency Operating Procedures, Abnormal Operating Procedures, and Annunciator Response Procedures.
26. Copy of any self-assessments performed in preparation for this inspection and the previous CDBI (2012).
27. List of any condition reports generated in preparation for this inspection and those generated from previous CDBI (2012).
28. Contact information for a person to discuss PSA information prior to and during the information-gathering trip. (Name, title, phone number, and e-mail address)