



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II**

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

March 15, 2016

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

**SUBJECT: NOTIFICATION OF SEQUOYAH NUCLEAR PLANT - COMPONENT DESIGN BASES INSPECTION - NRC INSPECTION REPORT 05000327/2016007, 05000328/2016007**

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 Sequoyah Nuclear Station during the weeks of May 9 – 13, May 23 – 27, and June 13 – 17, 2016. Mr. Robert Patterson, a Reactor Inspector in Region II, will lead the inspection team. This inspection will be conducted in accordance with the baseline inspection procedure (IP) 71111.21, "Component Design Bases Inspection," issued 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 March 14, 2016, Mr. Patterson confirmed with Ms. Rebecca Travis of your staff, arrangements for an information-gathering site visit and the 3-week onsite inspection. The schedule is as follows:

- Information-gathering visit: Week of April 25 – 29, 2016
- Onsite inspection: Weeks of May 9 – 13, May 23 – 27, and June 13 – 17, 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 Reactor Analyst, will support Mr. Patterson during the information-gathering visit to review probabilistic risk assessment data and identify risk-significant components, which will be examined during the inspection.

The enclosure lists documents needed prior to the information-gathering visit. Please provide the referenced information to the Region II Office by April 4, 2016.

Additional documents will 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 should be available to the team in the Region II Office prior to the inspection team's preparation week of May 2, 2016.

Mr. Patterson 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, its enclosure, and your response (if any) 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 Document Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site 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. Patterson at 404-997-4667 or contact me at 404-997-4607.

Sincerely,

***/RA: Geoffrey Ottenberg for/***

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

Docket Nos.: 50-327, 50-328  
License Nos.: DPR-77, DPR-79

Enclosure:  
Information Request for Sequoyah  
Nuclear Plant – Component Design Bases  
Inspection

cc: Distribution via Listserv

Additional documents will 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 should be available to the team in the Region II Office prior to the inspection team's preparation week of April 18, 2016.

Mr. Patterson 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.

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DISTRIBUTION:  
RIDSNNRRDIRS  
PUBLIC  
RidsNrrPMSequoyah Resource

PUBLICLY AVAILABLE       NON-PUBLICLY AVAILABLE       SENSITIVE       NON-SENSITIVE  
ADAMS:  Yes      ACCESSION NUMBER: \_\_\_\_\_       SUNSI REVIEW COMPLETE       FORM 665 ATTACHED

OFFICE	RII:DRS	RII:DRS					
SIGNATURE	<b>RNP1</b>	<b>GKO FOR JHB1</b>					
NAME	RPATTERSON	JBARTLEY					
DATE	3/ 15 /2016	3/ 15/2016	3/ /2016	3/ /2016	3/ /2016	3/ /2016	3/ /2016
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY      DOCUMENT NAME: S:\DRS\ENG BRANCH 1\BRANCH INSPECTION FILES\2014-2015-2016 CYCLE INSPECTION FOLDER FOR ALL SITES\SEQUOYAH\2016 CDBI\SEQ CDBI 2016007 NOTIFICATION LETTER FINAL.DOCX

## INFORMATION REQUEST FOR SEQUOYAH NUCLEAR STATION 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 Web site) 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
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, including 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 April 1, 2013, 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.), and associated evaluations or calculations
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) since April 1, 2013
8. List and brief description of safety-related structures, systems, or components (SSCs) design modifications implemented since April 1, 2013
9. List and brief description of common-cause component failures that have occurred since April 1, 2013
10. List and brief description of operability evaluations completed since April 1, 2013

Enclosure

11. 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)
12. List and brief description of equipment currently in degraded or nonconforming status as described in Regulatory Issue Summary 05-020
13. List and reason for equipment classified in maintenance rule (a)(1) status from April 1, 2013, to present
14. Copies of system descriptions (or the design basis documents) for safety-related systems
15. Copy of Updated Final Safety Analysis Report
16. Copy of Technical Specification(s)
17. Copy of Technical Specifications Bases
18. Copy of Selected Licensee Commitment Manual(s)
19. List and brief description of Root Cause Evaluations performed since April 1, 2013
20. In-service Testing Program Procedure(s)
21. Corrective Action Program Procedure(s)
22. One-line diagram of electrical plant (electronic and full size – hard copy week of March 28, 2016)
23. Index and legend for electrical plant one-line diagrams
24. Primary AC calculation(s) for safety-related buses
25. Primary DC calculation(s) for safety-related buses
26. Piping and instrumentation diagrams (P&IDs) for safety-related systems (electronic and 1/2 size – hard copy week of March 28, 2016)
27. Index and Legend for P&IDs
28. Copy of Operability Determination procedure(s)
29. Copies of corrective action documents (i.e. condition reports (CRs)) associated with findings from previous CDBI, if applicable
30. Index (procedure number, title, and current revision) of station Emergency Operating Procedures, Abnormal Operating Procedures, and Annunciator Response Procedures
31. Copy of any self-assessments performed in preparation for this inspection

32. List of any PIPs generated in preparation for this inspection
33. Copies of PIPs generated from previous CDBI (2013)
34. Contact information for a person to discuss PSA information prior to the information-gathering trip (name, title, phone number, and e-mail address)