



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

August 31, 2016

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

**SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR SEQUOYAH NUCLEAR PLANT UNITS  
1 AND 2, NRC INSPECTION REPORT 05000327/2016005, 05000328/2016005**

Dear Mr. Shea:

On August 10, 2016, the NRC completed its mid-cycle performance review of the Sequoyah Nuclear Plant Units 1 and 2. The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions from July 1, 2015, through June 30, 2016. This letter informs you of the NRC's assessment of your facility during this period and its plans for future inspections at your facility.

The NRC determined the performance at Sequoyah Unit 1 during the most recent quarter was within the Regulatory Response Column of the NRC's Reactor Oversight Process (ROP) Action Matrix due to one White performance indicator for unplanned scrams which crossed the green-to-white threshold in the third quarter of 2015. All inspection findings had very low (i.e., green) safety significance, and all other performance indicators for Unit 1 were within the nominal, expected range (i.e., green) during this assessment period. The NRC conducted a supplemental inspection using inspection procedure 95001 for Unit 1 after the end of the assessment period. The results of this inspection and any follow-up assessment will be communicated in separate correspondence.

The NRC determined that overall, Sequoyah Plant Unit 2 operated in a manner that preserved public health and safety and met all cornerstone objectives. The NRC determined the performance at the Sequoyah Nuclear Plant Unit 2 during the most recent quarter was within the Licensee Response Column of the NRC's ROP Action Matrix because all inspection findings had very low (i.e., green) safety significance, and all PIs indicated that your performance was within the nominal, expected range (i.e., green). Therefore, the NRC plans to conduct ROP baseline inspections at your facility.

Although plant performance was within the Regulatory Response Column for Unit 1 and Licensee Response Column for Unit 2, the NRC has not yet finalized the significance of AV 05000327, 328/2016002-01: Isolation of Fire Suppression System to a Significant Portion of the Plant Site. The final safety significance determination may affect the NRC's assessment of plant performance and the enclosed inspection plan.

The enclosed inspection plan lists the inspections scheduled through June 30, 2018. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the last nine months of the inspection plan are tentative and may be revised at the end-of-cycle performance review. The NRC will contact you as soon as possible to discuss changes to the inspection plan should circumstances warrant any changes. This inspection plan does not include security related inspections, which will be sent via separate, non-publicly available correspondence.

In response to the accident at Fukushima, the Commission issued Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," and Order EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation." The NRC conducted audits of licensee efforts towards compliance with these Orders, and the information gathered will aid staff in development of the ultimate Safety Evaluation for the site. After the NRC staff receives the Final Compliance letter for the site, the Safety Evaluation will be issued. Then, the NRC staff will confirm through inspections the full implementation of the orders mentioned above by performing Temporary Instruction 191, "Inspection of the Implementation of Mitigation Strategies and Spent Fuel Pool Instrumentation Orders and Emergency Preparedness Communication/Staffing/Multi-Unit Dose Assessment Plans."

In Staff Requirements Memorandum – SECY 16-0009, "Recommendations Resulting from the Integrated Prioritization and Re-Baselining of Agency Activities," the Commission approved the NRC staff recommendation to discontinue the formal mid-cycle assessment process beginning in calendar year 2017. This will be the final mid-cycle assessment letter. The staff will continue to conduct quarterly assessment meetings and communicate changes in the assessment of licensee performance in accordance with the guidance in Inspection Manual Chapter 0305, "Operating Reactor Assessment Program."

In accordance with 10 CFR 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter will be 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).

Please contact Alan Blamey at (404) 997-4415 with any questions you have regarding this letter.

Sincerely,

**/RA/**

Joel Munday Division Director  
Division of Reactor Projects

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

Enclosure: Sequoyah Inspection/Activity Plan  
(09/01/2016 – 06/30/2018)

cc: Distribution via ListSer

The enclosed inspection plan lists the inspections scheduled through June 30, 2018. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the last nine months of the inspection plan are tentative and may be revised at the end-of-cycle performance review. The NRC will contact you as soon as possible to discuss changes to the inspection plan should circumstances warrant any changes. This inspection plan does not include security related inspections, which will be sent via separate, non-publicly available correspondence.

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PUBLICLY AVAILABLE       NON-PUBLICLY AVAILABLE       SENSITIVE       NON-SENSITIVE  
ADAMS:  Yes      ACCESSION NUMBER: ML16245A189       SUNSI REVIEW COMPLETE       FORM 665 ATTACHED

|              |          |           |           |          |          |          |          |
|--------------|----------|-----------|-----------|----------|----------|----------|----------|
| OFFICE       | RII:DRP  | RII:DRP   | RII:DRP   |          |          |          |          |
| SIGNATURE    | CRK1     | AJB3      | JTM       |          |          |          |          |
| NAME         | C. Kontz | A. Blamey | J. Munday |          |          |          |          |
| DATE         | 8/5/2016 | 8/31/2016 | 8/31/2016 | 9/ /2016 | 9/ /2016 | 9/ /2016 | 9/ /2016 |
| E-MAIL COPY? | YES NO   | YES NO    | YES NO    | YES NO   | YES NO   | YES NO   | YES NO   |

OFFICIAL RECORD COPY DOCUMENT NAME: S:\DRP NEW\RPB7\PERIODIC ASSESSMENTS & REPORTS\IEOC & MID-CYCLE\2016\ADMIN WORKING FOLDER\LETTERS\SEQUOYAH 2016 MID CYCLE LETTER.DOCX

**Sequoyah**  
**Inspection / Activity Plan**  
**09/01/2016 - 06/30/2018**

| Unit Number | Planned Dates |            | Inspection Activity                                | Title   | No. of Staff on Site |
|-------------|---------------|------------|--|---|----------------------|
|             | Start         | End        |  |   |                      |
|             |               |            | <b>EP - EP EXERCISE INSPECTION</b>                 |   | <b>5</b>             |
| 1, 2        | 09/12/2016    | 09/16/2016 | IP 7111401   | Exercise Evaluation   |                      |
| 1, 2        | 09/12/2016    | 09/16/2016 | IP 7111404   | Emergency Action Level and Emergency Plan Changes   |                      |
| 1, 2        | 09/12/2016    | 09/16/2016 | IP 7111408   | Exercise Evaluation – Scenario Review   |                      |
| 1, 2        | 09/12/2016    | 09/16/2016 | IP 71151   | Performance Indicator Verification  |                      |
|             |               |            | <b>OL RQ - REQUAL INSP</b>                         |   | <b>2</b>             |
| 1, 2        | 10/03/2016    | 10/07/2016 | IP 7111111B  | Licensed Operator Requalification Program   |                      |
|             |               |            | <b>RP - RP OCCUPATIONAL INSPECTION WEEK 1</b>      |   | <b>2</b>             |
| 1, 2        | 11/06/2016    | 11/10/2016 | IP 71124.01  | Radiological Hazard Assessment and Exposure Controls  |                      |
| 1, 2        | 11/06/2016    | 11/10/2016 | IP 71124.02  | Occupational ALARA Planning and Controls  |                      |
| 1, 2        | 11/06/2016    | 11/10/2016 | IP 71124.03  | In-Plant Airborne Radioactivity Control and Mitigation  |                      |
| 1, 2        | 11/06/2016    | 11/10/2016 | IP 71124.04  | Occupational Dose Assessment  |                      |
| 1, 2        | 11/06/2016    | 11/10/2016 | IP 71124.05  | Radiation Monitoring Instrumentation  |                      |
| 1, 2        | 11/06/2016    | 11/10/2016 | IP 71151   | Performance Indicator Verification  |                      |
|             |               |            | <b>ISI - UNIT 1 IN-SERVICE INSPECTION</b>          |   | <b>1</b>             |
| 1           | 11/07/2016    | 11/11/2016 | IP 7111108P  | Inservice Inspection Activities - PWR   |                      |
|             |               |            | <b>RP - RP OCCUPATIONAL INSPECTION WEEK 2</b>      |   | <b>3</b>             |
| 1, 2        | 11/14/2016    | 11/18/2016 | IP 71124.01  | Radiological Hazard Assessment and Exposure Controls  |                      |
| 1, 2        | 11/14/2016    | 11/18/2016 | IP 71124.02  | Occupational ALARA Planning and Controls  |                      |
| 1, 2        | 11/14/2016    | 11/18/2016 | IP 71124.03  | In-Plant Airborne Radioactivity Control and Mitigation  |                      |
| 1, 2        | 11/14/2016    | 11/18/2016 | IP 71124.04  | Occupational Dose Assessment  |                      |
| 1, 2        | 11/14/2016    | 11/18/2016 | IP 71124.05  | Radiation Monitoring Instrumentation  |                      |
| 1, 2        | 11/14/2016    | 11/18/2016 | IP 71151   | Performance Indicator Verification  |                      |
|             |               |            | <b>SGISI - UNIT 1 SG IN-SERVICE INSPECTION</b>     |   | <b>1</b>             |
| 1           | 11/14/2016    | 11/18/2016 | IP 7111108P  | Inservice Inspection Activities - PWR   |                      |
|             |               |            | <b>TI-191 - MITIGATING STRATEGIES</b>              |   | <b>4</b>             |
| 1, 2        | 03/06/2017    | 03/10/2017 | IP 2515/191  | Inspection of Licensee's Responses to Order EA-12-049, EA-12-051 & EP Info Request March 12, 2012 |                      |
|             |               |            | <b>TFPI - TRIENNIAL FIRE PROTECTION INSPECTION</b> |   | <b>5</b>             |
| 1, 2        | 03/20/2017    | 03/24/2017 | IP 7111105T  | Fire Protection [Triennial]   |                      |
| 1, 2        | 04/03/2017    | 04/07/2017 | IP 7111105T  | Fire Protection [Triennial]   |                      |
|             |               |            | <b>ISI - UNIT 2 IN-SERVICE INSPECTION</b>          |   | <b>1</b>             |
| 2           | 05/01/2017    | 05/05/2017 | IP 7111108P  | Inservice Inspection Activities - PWR   |                      |

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

**Sequoyah**  
**Inspection / Activity Plan**  
**09/01/2016 - 06/30/2018**

| Unit Number | Planned Dates |            | Inspection Activity                                     | Title   | No. of Staff on Site |
|-------------|---------------|------------|---|---|----------------------|
|             | Start         | End        |   |   |                      |
|             |               |            | <b>RP - RAD HAZARDS</b>                                 |   | <b>1</b>             |
| 1, 2        | 05/01/2017    | 05/05/2017 | IP 71124.01   | Radiological Hazard Assessment and Exposure Controls  |                      |
|             |               |            | <b>PI&amp;R - PROBLEM IDENTIFICATION AND RESOLUTION</b> |   | <b>5</b>             |
| 1, 2        | 06/05/2017    | 06/09/2017 | IP 71152B   | Problem Identification and Resolution   |                      |
| 1, 2        | 06/19/2017    | 06/23/2017 | IP 71152B   | Problem Identification and Resolution   |                      |
|             |               |            | <b>RP - RP PUBLIC RADIATION SAFETY</b>                  |   | <b>3</b>             |
| 1, 2        | 07/10/2017    | 07/14/2017 | IP 71124.06   | Radioactive Gaseous and Liquid Effluent Treatment   |                      |
| 1, 2        | 07/10/2017    | 07/14/2017 | IP 71124.07   | Radiological Environmental Monitoring Program   |                      |
| 1, 2        | 07/10/2017    | 07/14/2017 | IP 71124.08   | Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation |                      |
| 1, 2        | 07/10/2017    | 07/14/2017 | IP 71151  | Performance Indicator Verification  |                      |
|             |               |            | <b>EP - EP PROGRAM INSPECTION</b>                       |   | <b>3</b>             |
| 1, 2        | 09/11/2017    | 09/15/2017 | IP 7111402  | Alert and Notification System Testing   |                      |
| 1, 2        | 09/11/2017    | 09/15/2017 | IP 7111403  | Emergency Preparedness Organization Staffing and Augmentation System                              |                      |
| 1, 2        | 09/11/2017    | 09/15/2017 | IP 7111404  | Emergency Action Level and Emergency Plan Changes   |                      |
| 1, 2        | 09/11/2017    | 09/15/2017 | IP 7111405  | Correction of Emergency Preparedness Weaknesses and Deficiencies                                  |                      |
| 1, 2        | 09/11/2017    | 09/15/2017 | IP 71151  | Performance Indicator Verification  |                      |
|             |               |            | <b>OL EXAM - INITIAL LICENSE EXAM PREP</b>              |   | <b>3</b>             |
| 1           | 10/30/2017    | 11/03/2017 | V23503  | SEQUOYAH DECEMBER 2017 INITIAL EXAM AT POWER FACILITIES   |                      |
|             |               |            | <b>OL EXAM - INITIAL LICENSE EXAM</b>                   |   | <b>3</b>             |
| 1           | 12/04/2017    | 12/15/2017 | V23503  | SEQUOYAH DECEMBER 2017 INITIAL EXAM AT POWER FACILITIES   |                      |
|             |               |            | <b>ISI - UNIT 1 IN-SERVICE INSPECTION</b>               |   | <b>1</b>             |
| 1           | 05/14/2018    | 05/18/2018 | IP 7111108P   | Inservice Inspection Activities - PWR   |                      |
|             |               |            | <b>SGISI - UNIT 1 SG IN-SERVICE INSPECTION</b>          |   | <b>1</b>             |
| 1           | 05/21/2018    | 05/25/2018 | IP 7111108P   | Inservice Inspection Activities - PWR   |                      |
|             |               |            | <b>MODS - PLANT MODIFICATIONS INSPECTION</b>            |   | <b>3</b>             |
| 1, 2        | 06/11/2018    | 06/15/2018 | IP 7111117T   | Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications                  |                      |
| 1, 2        | 06/25/2018    | 06/29/2018 | IP 7111117T   | Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications                  |                      |

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