



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

March 2, 2016

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

**SUBJECT: ANNUAL ASSESSMENT LETTER FOR SEQUOYAH NUCLEAR PLANT UNITS 1  
AND 2, NRC INSPECTION REPORT 05000327/2015006, 05000328/2015006**

Dear Mr. Shea:

On February 11, 2016, the NRC completed its end-of-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 January 1, 2015, through December 31, 2015. 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. Therefore, in addition to the ROP baseline inspections, the NRC plans to conduct a supplemental inspection in accordance with Inspection Procedure 95001, "Supplemental Inspection for One or Two White Inputs in a Strategic Performance Area". The NRC requests that your staff provide notification of your readiness for the NRC to conduct the inspection.

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 Reactor Oversight Process (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.

The enclosed inspection plan lists the inspections scheduled through December 31, 2017. 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 mid-cycle performance review. In addition to the routine ROP baseline inspections at your facility, we also plan on conducting infrequently performed inspections which include: Inspection Procedure (IP) 92702, "Followup on Corrective Actions for Violations and Deviations," and an initial operator license examination. The NRC provides the inspection plan to

allow for the resolution of any scheduling conflicts and personnel availability issues. 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." This Order requires licensees to develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities following a beyond-design-basis external event. Additionally, the Commission issued Order EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation." This Order requires licensees to have a reliable means of remotely monitoring wide-range Spent Fuel Pool levels to support effective prioritization of event mitigation and recovery actions in the event of a beyond-design-basis external event. The NRC is conducting audits of licensee efforts towards compliance with these Orders. The audit was completed for Sequoyah Units 1 and 2, and the information gathered will aid staff in development of the Safety Evaluation for the site. After the NRC staff receives the Final Compliance letter for the site, the Final Safety Evaluation will be issued. Then, the NRC staff will confirm through inspections the full implementation of the orders mentioned above by performing TI 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 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/**

Mark Franke, Acting Division Director  
Division of Reactor Projects

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

Enclosure: Sequoyah Inspection/Activity Plan  
(03/01/2016 – 12/31/2017)

cc: Distribution via ListServ

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PUBLICLY AVAILABLE    NON-PUBLICLY AVAILABLE    SENSITIVE    NON-SENSITIVE  
ADAMS:  Yes   ACCESSION NUMBER: ML16062A262    SUNSI REVIEW COMPLETE    FORM 665 ATTACHED

|              |           |           |            |        |        |
|--------------|-----------|-----------|------------|--------|--------|
| OFFICE       | RII:DRP   | RII:DRP   | RII:DRP    |        |        |
| SIGNATURE    | CRK1      | AJB3      | MEF1       |        |        |
| NAME         | C. Kontz  | A. Blamey | M. Frankie |        |        |
| DATE         | 2/24/2016 | 2/29/2016 | 3/1/2016   |        |        |
| E-MAIL COPY? | YES NO    | YES NO    | YES NO     | YES NO | YES NO |

OFFICIAL RECORD COPY DOCUMENT NAME:

J. Shea

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Letter to Joseph W. Shea from Mark Franke dated March 2, 2016

SUBJECT: ANNUAL ASSESSMENT LETTER FOR SEQUOYAH NUCLEAR PLANT UNITS 1  
AND 2, NRC INSPECTION REPORT 05000327/2015006, 05000328/2015006

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**Sequoyah**  
**Inspection / Activity Plan**  
**03/01/2016 - 12/31/2017**

| Unit Number | Planned Dates |            | Inspection Activity                             | Title  | No. of Staff on Site |
|-------------|---------------|------------|---|--|----------------------|
|             | Start         | End        |   |  |                      |
|             |               |            | <b>OL EXAM - INITIAL LICENSE EXAM</b>           |  | <b>3</b>             |
| 1           | 03/07/2016    | 03/18/2016 | V23466  | SEQUOYAH MARCH 2016 INITIAL EXAM AT POWER FACILITIES         |                      |
|             |               |            | <b>92702 - 92702 FOLLOW-UP INSPECTION</b>       |  | <b>1</b>             |
| 1, 2        | 03/14/2016    | 03/30/2016 | IP 92702  | Followup On Corrective Actions For Violations And Deviations |                      |
|             |               |            | <b>CDBI - COMPONENT DESIGN BASES INSPECTION</b> |  | <b>7</b>             |
| 1, 2        | 04/25/2016    | 04/29/2016 | IP 7111121                                      | Component Design Bases Inspection                            |                      |
| 1, 2        | 05/09/2016    | 05/13/2016 | IP 7111121                                      | Component Design Bases Inspection                            |                      |
| 1, 2        | 05/23/2016    | 05/27/2016 | IP 7111121                                      | Component Design Bases Inspection                            |                      |
| 1, 2        | 06/13/2016    | 06/17/2016 | IP 7111121                                      | Component Design Bases Inspection                            |                      |
|             |               |            | <b>EP - EP EXERCISE INSPECTION</b>              |  | <b>7</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        | 10/31/2016    | 11/04/2016 | IP 71124.01                                     | Radiological Hazard Assessment and Exposure Controls         |                      |
| 1, 2        | 10/31/2016    | 11/04/2016 | IP 71124.02                                     | Occupational ALARA Planning and Controls                     |                      |
| 1, 2        | 10/31/2016    | 11/04/2016 | IP 71124.03                                     | In-Plant Airborne Radioactivity Control and Mitigation       |                      |
| 1, 2        | 10/31/2016    | 11/04/2016 | IP 71124.04                                     | Occupational Dose Assessment                                 |                      |
| 1, 2        | 10/31/2016    | 11/04/2016 | IP 71124.05                                     | Radiation Monitoring Instrumentation                         |                      |
| 1, 2        | 10/31/2016    | 11/04/2016 | 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                           |                      |

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

Enclosure

**Sequoyah**  
**Inspection / Activity Plan**  
**03/01/2016 - 12/31/2017**

| Unit Number | Planned Dates |            | Inspection Activity                                     | Title   | No. of Staff on Site |
|-------------|---------------|------------|---|---|----------------------|
|             | Start         | End        |   |   |                      |
|             |               |            | <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>TFPI - TRIENNIEL 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   |                      |
|             |               |            | <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   |                      |

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