



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

March 1, 2017

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 (REPORT 05000327/2016006 AND 05000328/2016006)**

Dear Mr. Shea:

The NRC has completed its end-of-cycle performance assessment of Sequoyah Nuclear Plant Units 1 and 2 and reviewed performance indicators (PIs), inspection results, and enforcement actions from January 1, 2016 through December 31, 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 concluded that overall performance at your facility preserved public health and safety.

The Unplanned Scrams per 7000 Critical Hours PI exceeded the Green-to-White threshold value in the third quarter of 2015. On July 15, 2016, the NRC completed a review of your corrective actions for the White PI using Inspection Procedure 95001, "Supplemental Inspection for One or Two White Inputs in a Strategic Performance Area." The NRC's inspection is documented in inspection report (IR) 05000327/2016008 which is publically available in the Agencywide Document Access and Management System using accession number ML16244A370.

On November 10, 2016, as a result of our quarterly review of plant performance, which was completed on October 20, 2016, the NRC updated its assessment of Sequoyah Nuclear Plant Unit 1. The NRC's evaluation consisted of a review of performance indicators (PIs) and inspection results. The NRC's review of Sequoyah Nuclear Plant Unit 1's performance identified that the Unplanned Scrams per 7000 Critical Hours PI returned to Green in the third quarter of 2016. Therefore, all the findings and performance indicators that input into the Action Matrix are Green. Accordingly, per the guidance in Inspection Manual Chapter (IMC) 0305, "Operating Reactor Assessment Program," Sequoyah Nuclear Plant Unit 1 transitioned to the Licensee Response Column (Column 1) of the NRC's Action matrix, effective October 1, 2016.

The NRC determined the performance at Sequoyah Nuclear Plant Units 1 and 2 during the most recent quarter was within the Licensee Response Column, the highest performance category of the NRC's Reactor Oversight Process (ROP) Action Matrix, because all inspection findings had very low safety significance (i.e., Green), and all PIs were within the 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, 2018. The NRC provides the inspection plan to allow for the resolution of any scheduling conflicts and personnel availability issues. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the last twelve months of the inspection plan are tentative and may be revised. 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 the plan for security-related inspections, which will be sent via separate, non-publicly available correspondence.

The NRC will perform Temporary Instruction (TI) 2515/191, "Inspection of the Implementation of Mitigation Strategies and Spent Fuel Pool Instrumentation Orders and Emergency Preparedness Communication/Staffing/Multi-Unit Dose Assessment Plans," beginning March 6, 2017. Additionally, the NRC will perform TI 2515/192, "Inspection of the Licensee's Interim Compensatory Measures Associated with the Open Phase Condition Design Vulnerabilities in Electrical Power Systems," in the first quarter of 2017.

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 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 T. Munday, Director
Division of Reactor Projects

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

Enclosure:
Sequoyah Inspection/Activity Plan
(03/01/2017-12/31/2018)

cc Distribution via ListServ

J. Shea

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SUBJECT: ANNUAL ASSESSMENT LETTER FOR SEQUOYAH NUCLEAR PLANT
UNITS 1 AND 2 (REPORT 05000327/2016006 AND 05000328/2016006)
March 1, 2017

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|--------|-----------|-----------|-----------|--|--|
| OFFICE | RII:DRP | RII:DRP | RII:DRP | | |
| NAME | JSeat | ABlamey | JMunday | | |
| DATE | 2/22/2017 | 2/22/2017 | 2/22/2017 | | |

Official Record Copy

Sequoyah
Inspection / Activity Plan
03/01/2017 - 12/31/2018

| Unit Number | Planned Dates | | Inspection Activity | Title | No. of Staff on Site |
|-------------|---------------|------------|---|---|----------------------|
| | Start | End | | | |
| | | | TI192 - TI192 INSPECTION | | 2 |
| 1, 2 | 01/01/2017 | 03/31/2017 | IP 2515/192 | Inspection of the Licensee's Interim Compensatory Measures Associated with the Open Phase Condition | |
| | | | TFPI - TRIENNIAL FIRE PROTECTION INSPECTION | | 8 |
| 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] | |
| | | | TI-191 - MITIGATING STRATEGIES | | 3 |
| 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 | |
| | | | ISI - UNIT 2 IN-SERVICE INSPECTION | | 1 |
| 2 | 05/01/2017 | 05/05/2017 | IP 7111108P | Inservice Inspection Activities - PWR | |
| | | | RP - RAD HAZARDS | | 1 |
| 1, 2 | 05/01/2017 | 05/05/2017 | IP 71124.01 | Radiological Hazard Assessment and Exposure Controls | |
| | | | PI&R - PROBLEM IDENTIFICATION AND RESOLUTION | | 5 |
| 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 | |
| | | | RP - RP PUBLIC RADIATION SAFETY | | 3 |
| 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 | |
| | | | EP - EP PROGRAM INSPECTION | | 3 |
| 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 | |
| | | | OL EXAM - INITIAL LICENSE EXAM PREP | | 3 |
| 1 | 10/30/2017 | 11/03/2017 | V23503 | SEQUOYAH DECEMBER 2017 INITIAL EXAM AT POWER FACILITIES | |
| | | | EQI - DESIGN BASES ASSURANCE INSPECTION (PROGR | | 4 |
| 1, 2 | 10/30/2017 | 11/03/2017 | IP 7111121N | Component Design Bases Inspection (Programs) | |
| 1, 2 | 11/13/2017 | 11/17/2017 | IP 7111121N | Component Design Bases Inspection (Programs) | |
| 1, 2 | 12/04/2017 | 12/08/2017 | IP 7111121N | Component Design Bases Inspection (Programs) | |
| | | | OL EXAM - INITIAL LICENSE EXAM | | 3 |
| 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.

Enclosure

Sequoyah
Inspection / Activity Plan
03/01/2017 - 12/31/2018

| Unit Number | Planned Dates | | Inspection Activity | Title | No. of Staff on Site |
|-------------|---------------|------------|--|--|----------------------|
| | Start | End | | | |
| | | | ISI - UNIT 1 IN-SERVICE INSPECTION | | 1 |
| 1 | 04/16/2018 | 04/20/2018 | IP 7111108P | Inservice Inspection Activities - PWR | |
| | | | MODS - PLANT MODIFICATIONS INSPECTION | | 3 |
| 1, 2 | 06/04/2018 | 06/08/2018 | IP 7111117T | Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications | |
| | | | HS - TRIENNIAL HEAT SINK PERFORMANCE | | 1 |
| 1, 2 | 07/16/2018 | 07/20/2018 | IP 7111107T | Heat Sink Performance | |
| | | | EP - EP EXERCISE | | 8 |
| 1, 2 | 09/17/2018 | 09/21/2018 | IP 7111401 | Exercise Evaluation | |
| 1, 2 | 09/17/2018 | 09/21/2018 | IP 7111404 | Emergency Action Level and Emergency Plan Changes | |
| 1, 2 | 09/17/2018 | 09/21/2018 | IP 71151-EP01 | Drill/Exercise Performance | |
| 1, 2 | 09/17/2018 | 09/21/2018 | IP 71151-EP02 | ERO Readiness | |
| 1, 2 | 09/17/2018 | 09/21/2018 | IP 71151-EP03 | Alert & Notification System Reliability | |
| | | | OL RQ - REQUAL INSPECTION | | 2 |
| 1, 2 | 10/08/2018 | 10/12/2018 | IP 7111111B | Licensed Operator Requalification Program | |
| | | | ISI - UNIT 2 IN-SERVICE INSPECTION | | 1 |
| 2 | 10/29/2018 | 11/02/2018 | IP 7111108P | Inservice Inspection Activities - PWR | |
| | | | RP - RP OCCUPATIONAL - WEEK 1 | | 3 |
| 1, 2 | 10/29/2018 | 11/02/2018 | IP 71124.01 | Radiological Hazard Assessment and Exposure Controls | |
| 1, 2 | 10/29/2018 | 11/02/2018 | IP 71124.02 | Occupational ALARA Planning and Controls | |
| 1, 2 | 10/29/2018 | 11/02/2018 | IP 71124.03 | In-Plant Airborne Radioactivity Control and Mitigation | |
| 1, 2 | 10/29/2018 | 11/02/2018 | IP 71124.04 | Occupational Dose Assessment | |
| 1, 2 | 10/29/2018 | 11/02/2018 | IP 71124.05 | Radiation Monitoring Instrumentation | |
| 1, 2 | 10/29/2018 | 11/02/2018 | IP 71151-OR01 | Occupational Exposure Control Effectiveness | |
| 1, 2 | 10/29/2018 | 11/02/2018 | IP 71151-PR01 | RETS/ODCM Radiological Effluent Occurrences | |
| | | | SGISI - UNIT 2 SG IN-SERVICE INSPECTION | | 1 |
| 2 | 11/05/2018 | 11/09/2018 | IP 7111108P | Inservice Inspection Activities - PWR | |
| | | | RP - RP OCCUPATIONAL - WEEK 2 | | 2 |
| 1, 2 | 11/26/2018 | 11/30/2018 | IP 71124.01 | Radiological Hazard Assessment and Exposure Controls | |
| 1, 2 | 11/26/2018 | 11/30/2018 | IP 71124.02 | Occupational ALARA Planning and Controls | |
| 1, 2 | 11/26/2018 | 11/30/2018 | IP 71124.03 | In-Plant Airborne Radioactivity Control and Mitigation | |
| 1, 2 | 11/26/2018 | 11/30/2018 | IP 71124.04 | Occupational Dose Assessment | |
| 1, 2 | 11/26/2018 | 11/30/2018 | IP 71124.05 | Radiation Monitoring Instrumentation | |
| 1, 2 | 11/26/2018 | 11/30/2018 | IP 71151-OR01 | Occupational Exposure Control Effectiveness | |

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Sequoyah
Inspection / Activity Plan
03/01/2017 - 12/31/2018

| Unit Number | Planned Dates Start End | | Inspection Activity | Title | No. of Staff on Site |
|--------------------------------------|---------------------------------|------------|---------------------|---|----------------------|
| RP - RP OCCUPATIONAL - WEEK 2 | | | | | |
| 1, 2 | 11/26/2018 | 11/30/2018 | IP 71151-PR01 | RETS/ODCM Radiological Effluent Occurrences | 2 |

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