



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

October 25, 2012

Mr. Joseph W. Shea
Manager, Corporate Nuclear Licensing Programs
Tennessee Valley Authority
1101 Market Street, LP 4B-C
Chattanooga, TN 37402-2801

SUBJECT: SEQUOYAH NUCLEAR PLANT – U. S. NUCLEAR REGULATORY
COMMISSION EMERGENCY PREPAREDNESS INSPECTION REPORT
05000327/2012502, AND 05000328/2012502

Dear Mr. Shea:

On October 5, 2012, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at the Sequoyah Nuclear Plant. The enclosed inspection report documents the inspection results, which were discussed on October 5, 2012, with Mr. J. Carlin and other members of plant staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, no findings were identified.

In accordance with 10 CFR 2.390 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 document system (ADAMS). ADAMS is accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Brian Bonser, Chief
Plant Support Branch 1
Division of Reactor Safety

Docket No. 50-327, 50-328
License No. DPR-77, DPR-79

Enclosure:
IR 05000327/2012502, and 05000328/2012502
w/Attachment: Supp. Info.

Cc w/encl: (See page 2)

October 25, 2012

Mr. Joseph W. Shea
Manager, Corporate Nuclear Licensing Programs
Tennessee Valley Authority
1101 Market Street, LP 4B-C
Chattanooga, TN 37402-2801

SUBJECT: SEQUOYAH NUCLEAR PLANT – U. S. NUCLEAR REGULATORY
COMMISSION EMERGENCY PREPAREDNESS INSPECTION REPORT
05000327/2012502, AND 05000328/2012502

Dear Mr. Shea:

On October 5, 2012, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at the Sequoyah Nuclear Plant. The enclosed inspection report documents the inspection results, which were discussed on October 5, 2012, with Mr. J. Carlin and other members of plant staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, no findings were identified.

In accordance with 10 CFR 2.390 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 document system (ADAMS). ADAMS is accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Brian Bonser, Chief
Plant Support Branch 1
Division of Reactor Safety

Docket No. 50-327, 50-328
License No. DPR-77, DPR-79

Enclosure:
IR 05000327/2012502, and 05000328/2012502
w/Attachment: Supp. Info.

cc w/encl: (See page 2)

Distribution w/encl
See page 3

X PUBLICLY AVAILABLE NON-PUBLICLY AVAILABLE SENSITIVE X NON-SENSITIVE
ADAMS: X Yes ACCESSION NUMBER: ML122300A174 X SUNSI REVIEW COMPLETE X FORM 665 ATTACHED

OFFICE	RII: DRS/PSB1	RII	RII	RII: DRS/PSB1	RII: DRP	
SIGNATURE	RA/MS	RA/MS For RL	RA/KK	RA/BB	RA/SH	
NAME	M. SPECK	R. LEWIS	K. KORTH	B. BONSER	S. SHAEFFER	
DATE	10/10/2012	10/11/2012	10/10/2012	10/25/2012	10/22/2012	
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY DOCUMENT NAME: G:DRS\I\PSB1\EMERGENCY PREPAREDNESS\SEQUOYAH\2012 SQN EXERCISE REPORTREV1.DOCX

cc w/encl:
J. T. Carlin
Site Vice President
Sequoyah Nuclear Plant
Tennessee Valley Authority
Electronic Mail Distribution

P. R. Simmons
Plant Manager
Sequoyah Nuclear Plant
Tennessee Valley Authority
Electronic Mail Distribution

G. M. Cook
Manager
Licensing
Sequoyah Nuclear Plant
Electronic Mail Distribution

C. D. Mackaman
Tennessee Valley Authority
Electronic Mail Distribution

Edward J. Viglucci
Assistant General Counsel
Tennessee Valley Authority
Electronic Mail Distribution

County Mayor
Hamilton County
Hamilton County Courthouse
208 Courthouse
625 Georgia Avenue
Chattanooga, TN 37402-2801

Tennessee Department of Environment & Conservation
Division of Radiological Health
401 Church Street
Nashville, TN 37243

Senior Resident Inspector
U.S. Nuclear Regulatory Commission
Sequoyah Nuclear Plant
2600 Igou Ferry Road
Soddy Daisy, TN 37379-3624

Ann Harris
341 Swing Loop
Rockwood, TN 37854

Letter to Joseph W. Shea from Brian Bonser dated October 25, 2012.

SUBJECT: SEQUOYAH NUCLEAR PLANT – U. S. NUCLEAR REGULATORY
COMMISSION EMERGENCY PREPAREDNESS INSPECTION REPORT
05000327/2012502, AND 05000328/2012502

Distribution w/encl:

R. Pascarelli, NRR ((Regulatory Conferences Only))

RidsNrrPMSequoyah Resource

C. Evans, RII EICS (Part 72 Only)

L. Douglas, RII EICS (Linda Douglas)

B. Westreich, NSIR (hard copy w/ encl)

RIDSNRRDIRS

OE Mail (email address if applicable)

PUBLIC

U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.: 05000327, 05000328

License Nos.: DPR-77, DPR-79

Report No.: 05000327/2012502, 05000329/2012502

Licensee: Tennessee Valley Authority (TVA)

Facility: Sequoyah Nuclear Plant, Units 1 and 2

Location: Soddy-Daisy, TN

Dates: October 1, 2012, through October 5, 2012

Inspectors: M. Speck, Senior Emergency Preparedness Inspector
D. Berkshire, Emergency Preparedness Inspector
R. Lewis, Acting Senior Resident Inspector
K. Korth, Senior Reactor Technology Instructor

Approved by: Brian Bonser, Chief
Plant Support Branch 1
Division of Reactor Safety

Enclosure

SUMMARY OF FINDINGS

IR 05000327/2012502; 05000328/2012502; 10/01-05/2012; Sequoyah Nuclear Plant, Unit 1 and 2; Baseline Inspection

The report covered an announced inspection by two emergency preparedness inspectors, one reactor technology instructor, and one senior resident inspector. No findings were identified. The U.S. Nuclear Regulatory Commission's (NRC) program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

A. NRC-Identified and Self-Revealing Findings

None

B. Licensee-Identified Violations

None

REPORT DETAILS

1. REACTOR SAFETY

Cornerstone: Emergency Preparedness

1EP1 Exercise Evaluation

a. Inspection Scope

Prior to the arrival onsite, the inspectors conducted an in-office review of the exercise objectives and scenario submitted to the NRC to determine if the exercise would test major elements of the emergency plan as required by 10 CFR 50.47(b)(14).

The onsite inspection consisted of the following review and assessment:

- The adequacy of the licensee's performance in the biennial exercise, conducted on October 3, 2012, was reviewed and assessed regarding the implementation of the Risk Significant Planning Standards (RSPS) in 10 CFR 50.47 (b)(4), (5), (9), and (10) which address emergency classification, offsite notification, radiological assessment, and protective action recommendations, respectively.
- The overall adequacy of the licensee's emergency response facilities with regard to NUREG-0696, "Functional Criteria for Emergency Response Facilities" and Emergency Plan commitments. The facilities assessed were the Control Room Simulator, Technical Support Center (TSC), Operations Support Center (OSC), and Central Emergency Control Center (CECC).
- Other performance areas, such as: the emergency response organization's (ERO) recognition of abnormal plant conditions; command and control, intra- and inter-facility communications; prioritization of mitigation activities; utilization of repair and field monitoring teams; interface with offsite agencies; and the overall implementation of the emergency plan and its implementing procedures.
- Past performance issues from NRC inspection reports and Federal Emergency Management Agency (FEMA)/Department of Homeland Security (DHS) exercise reports to determine the effectiveness of corrective actions as demonstrated during this exercise to ensure compliance with 10 CFR 50.47(b)(14).
- The post-exercise critique process and the presentation to the licensee's senior management conducted on October 5, 2012, to evaluate the licensee's self-assessment of its ERO performance during the exercise and to ensure compliance with 10 CFR 50, Appendix E, Subsection IV.F.2.g.

The inspectors reviewed various documents which are listed in the Attachment. This inspection activity satisfied one inspection sample for the exercise evaluation on a biennial basis.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification

a. Inspection Scope

The inspector sampled licensee submittals relative to the Performance Indicators (PIs) listed below for the period July 1, 2011, through June 30, 2012. To verify the accuracy of the PI data reported during that period, PI definitions and guidance contained in NEI 99-02, "Regulatory Assessment Performance Indicator Guideline", Revision 6, was used to confirm the reporting basis for each data element.

Emergency Preparedness Cornerstone

- Emergency Response Organization Drill/Exercise Performance (DEP)
- Emergency Response Organization Readiness (ERO)
- Alert and Notification System Reliability (ANS)

For the specified review period, the inspector examined data reported to the NRC, procedural guidance for reporting PI information, and records used by the licensee to identify potential PI occurrences. The inspector verified the accuracy of the DEP through review of a sample of drill and event records. The inspector reviewed selected training records to verify the accuracy of the ERO PI for personnel assigned to key positions in the ERO. The inspector verified the accuracy of the PI for ANS reliability through review of a sample of the licensee's records of periodic system tests. Licensee procedures, records, and other documents reviewed within this inspection area are listed in the Attachment.

The inspector reviewed various documents which are listed in the Attachment. This inspection activity satisfied one inspection sample for each of the three (3) Emergency Preparedness PIs, i.e., DEP, ERO, and ANS, on an annual basis.

b. Findings

No findings were identified.

4OA6 Meetings, Including Exit

On October 5, 2012, the lead inspector presented the inspection results to Mr. J. Carlin and other members of the plant staff. The inspectors confirmed that proprietary information was not provided during the inspection.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel

J. Addison, Emergency Preparedness Manager of Drills and Exercises
T. Adkins, Emergency Preparedness Systems Manager
J. Carlin, Site Vice President
P. Gains, Emergency Preparedness staff
M. Halter, Emergency Preparedness Manager
W. Lee, Corporate Emergency Preparedness Manager
T. Marshall, Director of Safety and Licensing
W. Peggram, Emergency Preparedness staff
R. Proffitt, Licensing Manager
P. Simmons, Plant Manager
D. Sutton, Licensing Engineer
R. Thompson, Emergency Preparedness staff

ITEMS OPENED, CLOSED, AND DISCUSSED

None

LIST OF DOCUMENTS REVIEWED

1EP1 Exercise Evaluation

Procedures

EPIP-1, Emergency Plan Classification Matrix, Rev. 47
EPIP-2, Notification of Unusual Event, Rev. 31
EPIP-3, Alert, Rev. 34
EPIP-4, Site Area Emergency, Rev. 34
EPIP-5, General Emergency, Rev. 42
EPIP-6, Activation and Operation of the Technical Support Center, Rev. 49
EPIP-7, Activation and Operation of the Operations Support Center (OSC), Rev. 27
EPIP-8, Personnel Accountability and Evacuation, Rev. 18
EPIP-13, Dose Assessment, Rev. 16
EPIP-14, Radiation Protection Responsibility, Rev. 22
EPIP-15, Emergency Exposure Guidelines, Rev. 9
CECC EPIP-1, Central Emergency Control Center (CECC) Operations, Rev. 55
CECC EPIP-6, Plant Assessment Staff Procedures for Alert, Site Area Emergency, and General Emergency, Rev. 34
CECC EPIP-7, Radiological Assessment Staff Procedures for Alert, Site Area Emergency, and General Emergency, Rev. 33
CECC EPIP-8, Dose Assessment Staff Activities During Nuclear Plant Radiological Emergencies, Rev. 36
CECC EPIP-19, Post Accident Core Damage Assessment, Rev. 19
Radiological Emergency Plan (Generic Part), Rev. 97
Radiological Emergency Plan (Sequoyah – Appendix B), Rev. 97

Records and Data

Control Room, Technical Support Center, Operations Support Center, Joint Information Center, Central Emergency Control Center - Documentation packages (logs, event notification forms, Protective Action Recommendations, Media releases, and Radiological Dose Assessments) 2010, 2011, and 2012 Emergency Exercise and drill scenario documents

Corrective Action Program documents

619286 – TEENS not activated timely
 619310 – In-plant teams dispatched without specific SED direction
 619348 – Chemist and RP tech separated during sample task
 619399 – Wrong probe taken to environmental monitoring van
 619408 – PAR fax not sent in timely manner
 619425 – Evaluate wording in EPIP-15 for emergency exposure limits
 619426 – Some TAT members without TLDs
 619379 – RP tech pre-staged in OSC
 619389 – Review streaming media for procedural inclusion
 619401 – Van radios not on maintenance schedule
 619407 – PC notebooks not up to date affected remote log-in
 619411 – CECC EPIP-7 and 17 refer to PAG release rates
 619422 – CECC dose assessment software allows sharing prior to approval
 619427 – Security proficiency in implementing EPIP-8
 619430 – Update OSC poster to match EPIP-7
 619431 – Drill simulation issues
 619168 – 1200 degree admin limit on simulator

Section 4OA1: Performance Indicator VerificationProcedures

EPDP-11, Emergency Preparedness Performance Indicators, Rev. 4

Records and Data

DEP opportunities documentation for 3rd, and 4th quarter 2011, and 1st and 2nd quarter 2012
 Siren performance data for 3rd and 4th quarter 2011, and 1st and 2nd quarter 2012
 ERO training records for 3rd and 4th quarter 2011, and 1st and 2nd quarter 2012

Problem Evaluation Reports

351107, Train B failed in quarterly onsite siren test

LIST OF ACRONYMS USED

ANS	Alert and Notification System
CECC	Central Emergency Control Center
DEP	Drill and Exercise Performance
DHS	Department of Homeland Security
ERO	Emergency Response Organization
FEMA	Federal Emergency Management Agency
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
OSC	Operations Support Center
PI	Performance Indicator
RSPS	Risk Significant Planning Standard
TSC	Technical Support Center