



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW, SUITE 23T85
ATLANTA, GEORGIA 30303-8931

November 19, 2009

Mr. Preston D. Swafford
Chief Nuclear Officer and Executive Vice President
Tennessee Valley Authority
3R Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

SUBJECT: BROWNS FERRY NUCLEAR PLANT - NRC EMERGENCY PREPAREDNESS
INSPECTION REPORT 05000259/2009501, 05000260/2009501 AND
05000296/2009501

Dear Mr. Swafford:

On November 6, 2009, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Browns Ferry Nuclear Plant, Units 1, 2 and 3. The enclosed inspection report documents the inspection results, which were discussed on November 6, 2009, with Mr. R. West and other members of your 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 of significance 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,
/Heather Gepford RA for/

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

Docket Nos.: 50-259, 50-260, 50-296
License Nos.: DPR-33, DPR-52, DPR-68

Enclosure: Inspection Report 05000259/2009501, 05000260/2009501 and 05000296/2009501
w/Attachment: Supplemental Information

cc w/encl.: (See page 2)

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(cc continued next page)

TVA

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cc continued:

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Dr. D. E. Williamson
State Health Officer
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TVA

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Letter to Preston D. Swafford from Brian Bonser dated November 19, 2009

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INSPECTION REPORT 05000259/2009501, 05000260/2009501 AND
05000296/2009501

Distribution w/encl:

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RidsNrrPMBrownsFerry Resource

U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.: 05000259, 05000260, 05000296

License Nos.: DPR-33, DPR-52, DPR-68

Report No.: 05000259/2009501, 05000260/2009501 and 05000296/2009501

Licensee: Tennessee Valley Authority

Facility: Browns Ferry Nuclear Plant, Units 1, 2 and 3

Location: Athens, AL

Dates: November 2, 2009, through November 6, 2009

Inspectors: L. Miller, Senior Emergency Preparedness Inspector
J. Beavers, Emergency Preparedness Inspector
R. Schmitt, Emergency Preparedness Specialist
J. Dodson, Senior Project Engineer

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

Enclosure

SUMMARY OF FINDINGS

IR 05000259, 05000260, 05000296/2009501; 11/02 – 06/2009; Browns Ferry Nuclear Plant, Units 1, 2, and 3; Exercise and Baseline Inspection.

The report covered an announced inspection by two emergency preparedness inspectors, an emergency preparedness specialist, and a project engineer. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process."

A. NRC-Identified and Self-Revealing Findings

No findings of significance were identified.

B. Licensee-Identified Violations

None

Enclosure

REPORT DETAILS

1. REACTOR SAFETY

Cornerstone: Emergency Preparedness

1EP1 Exercise Evaluation

a. Inspection Scope

Prior to the inspection activity, 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). This inspection activity represents one sample on a biennial cycle.

The onsite inspection consisted of the following review and assessment:

- The adequacy of the licensee's performance in the biennial exercise conducted on November 04, 2009, was reviewed and assessed regarding the implementation of the Risk Significant Planning Standards (RSPSs) 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 Emergency Operations Facility (EOF).
- Other performance areas besides the RSPS, 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 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 November 06, 2009, to evaluate the licensee's self-assessment of its ERO performance during the exercise and to ensure compliance with 10 CFR 50 Appendix E.IV.F.2.g.

Enclosure

The inspectors reviewed various documents which are listed in the Attachment to this report.

b. Findings

No findings of significance were identified.

1EP4 Emergency Action Level and Emergency Plan Changes

a. Inspection Scope

Since the last NRC inspection of this program area, revision 89 of the Browns Ferry Emergency Plan was implemented. The licensee determined that in accordance with 10 CFR 50.54(q), the changes resulted in no decrease in the effectiveness of the Plan, and that the revised Plan continued to meet the requirements of 10 CFR 50.47(b) and Appendix E to 10 CFR Part 50. The inspectors conducted a sampling review of the implementing procedure changes made between June 1, 2008 and October 30, 2009 to evaluate for potential decreases in effectiveness of the Plan. However, this review was not documented in a Safety Evaluation Report and does not constitute formal NRC approval of the changes. Therefore, these changes remain subject to future NRC inspection in their entirety.

The inspection was conducted in accordance with NRC Inspection Procedure 71114, Attachment 04, "Emergency Action Level and Emergency Plan Changes." The applicable planning standard (PS), 10 CFR 50.47(b)(4) and its related 10 CFR 50, Appendix E requirements were used as reference criteria.

The inspectors reviewed various documents which are listed in the Attachment. This inspection activity satisfied one inspection sample for the emergency action level and emergency plan changes on an annual basis.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification

a. Inspection Scope

Cornerstone: Emergency Preparedness

The inspectors sampled licensee submittals for three Performance Indicators (PI) listed below. For each of the submittals reviewed, the inspectors reviewed the period from April 1, 2008, through June 30, 2009. To verify the accuracy of the PI data reported during that period, PI definitions and guidance contained in Nuclear Energy Institute

(NEI) 99-02, "Regulatory Assessment Indicator Guideline," Revision 5, were used to verify the basis in reporting for each data element.

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

The inspectors reviewed portions of the raw PI data developed from monthly performance indicator reports and discussed the methods for compiling and reporting the PIs with cognizant emergency preparedness personnel. The inspectors also independently screened drill and exercise opportunity evaluations, drill participation reports, and drill evaluations. Selected reported values were calculated to verify their accuracy. The inspectors compared graphical representations from the most recent PI report to the raw data to verify that the data was correctly reflected in the report. Reviewed documents are listed in the Attachment.

b. Findings

No findings of significance were identified.

4OA6 Meetings, including Exit

On November 06, 2009, the lead inspector presented the inspection results to Mr. R. West and other members of your staff. The inspector confirmed that proprietary information was not provided during the inspection.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel

S. Bono, Engineering Director
T. Feltman, Emergency Preparedness Manager
R. Godwin, Site Licensing Manager
D. Grissette, Site Support
R. West, Vice president

LIST OF DOCUMENTS REVIEWED

1EP1: Exercise Evaluation

Procedures

EPIP-8, Personnel Accountability and Evacuation Rev 21
EPIP-13, Dose Assessment, Rev 15
EPIP-14, Radiological Control Procedure, Rev 18
EPIP-16, Termination and Recovery Procedure, Rev 6
EPIP-17, Fire Emergency Procedure, Rev 30
EPDP-3, Emergency Plan Exercises and Preparedness Drills, Rev 0
EPDP-11, Emergency Preparedness Performance Indicators, Rev 0
O-SI-4.8.B.1.a.1, Airborne Effluent Release Rate, Rev 53
SPP-1.9, Emergency Preparedness, Rev 0
2-EOI App-18, Suppression Pool Water Inventory Removal and Makeup, Rev 8
0-TI-88, Procedure for Estimation of Extent of Core Damage Under Accident Conditions, Rev 7

Records and Data

2007 Green Team NRC/FEMA Evaluated Exercise
BFN 2008 Off Year Exercise Narrative Summary
Control Room (Simulator), Technical Support Center, Operations Support Center, Emergency Operations Facility, Joint Information Center - Documentation packages (logs, event notification forms, Protective Action Recommendations, Media releases, and Radiological Dose/Core damage Assessments)

1EP4: Emergency Action Level and Emergency Plan Changes

Changes packages

Radiological Emergency Plan Appendix A, Rev. 89
EPIP-1, Emergency Classification Procedure, Rev. 43 and 44
EPIP-2, Notification of Unusual Event, Rev. 29
EPIP-3, Alert, Rev. 32
EPIP-4, Site Area Emergency, Rev. 31
EPIP-5, General Emergency, Rev. 38
EPIP-6, Activation and Operation of the Technical Support Center (TSC), Rev. 29
EPIP-7, Activation and Operation of the Operations Support Center (OSC), Rev. 25 and 26

40A1: Performance Indicator VerificationRecords and Data

Documentation of Performance Indicator data, April 1, 2008 through June 30, 2009 for DEP, ANS, and ERO

LIST OF ACRONYMS

ANS	Alert and Notification System
EOF	Emergency Operations Facility
DEP	Drill/Exercise Performance
DHS	Department of Homeland Security
ERO	Emergency Response Organization
FEMA	Federal Emergency Management Agency
NEI	Nuclear Energy Institute
OSC	Operations Support Center
PI	Performance Indicator
PS	Planning Standard
RSPSs	Risk Significant Planning Standards
TI	Temporary Instruction
TSC	Technical Support Center