



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

August 12, 2015

Mr. Richard M. Glover
Site Vice President
H.B. Robinson Steam Electric Plant
Duke Energy
3581 West Entrance Road (RNPA01)
Hartsville, SC 29550

SUBJECT: H.B. ROBINSON STEAM ELECTRIC PLANT, UNIT 2 – U.S. NUCLEAR
REGULATORY COMMISSION EMERGENCY PREPAREDNESS INSPECTION
REPORT 05000261/2015502

Dear Mr. Glover:

On July 23, 2015, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your H.B. Robinson Nuclear Plant, Unit 2. The enclosed inspection report (IR) documents the inspection results that were discussed on July 23, 2015, with you and members of the 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.

No findings were identified during this inspection.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, "Public inspections, exemptions, requests for withholding," of the NRC's "Agency Rules of Practice and Procedure," 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 Documents Access and Management System (ADAMS); accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

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

Docket Nos. 50-261
License Nos. DPR-23

Enclosure:
IR 05000261/2015502
w/Attachment: Supplementary Information

cc: Distribution via Listserv

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OFFICE	RII:DRS/PSB1	RII:DRS/PSB1	RII:DRS/PSB1	RII:DRS/OLB2	RII:DRS/PSB1		
SIGNATURE	SPS	CAF2	WTL	RSB2	BRB1		
NAME	S. Sanchez	C. Fontana	W. Loo	R. Baldwin	B. Bonser		
DATE	8/ 12 /2015	8/ 12 /2015	8/ 12 /2015	8/ 12 /2015	8/ 12 /2015		
E-MAIL COPY	YES NO	YES NO	YES NO	YES NO	YES NO		

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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No: 05000261

License No: DPR-23

Report No: 05000261/2015502

Licensee: Duke Energy Progress, Inc.

Facility: H.B. Robinson Steam Electric Plant, Unit 2

Location: Hartsville, SC

Dates: July 20 - 24, 2015

Inspectors: Steven Sanchez, Senior Emergency Preparedness Inspector
Christopher Fontana, Emergency Preparedness Inspector
Wade Loo, Senior Health Physicist Inspector
Richard Baldwin, Senior Operations Engineer

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

Enclosure

SUMMARY

Inspection Report (IR) 05000261/2015502; 7/20/2015 – 7/24/2015; H.B. Robinson Steam Electric Plant, Unit 2; Exercise and Baseline Inspection

This report covers an announced inspection by two emergency preparedness inspectors, one senior operations engineer, and one senior health physicist. No findings of significance were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process."

REPORT DETAILS

1. REACTOR SAFETY

Cornerstone: Emergency Preparedness

1EP1 Exercise Evaluation

a. Inspection Scope

The onsite inspection consisted of the following review and assessment:

- The adequacy of the licensee's performance in the biennial exercise, conducted on July 21, 2015, 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 (ERF) 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, 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 July 23, 2015, to evaluate the licensee's self-assessment of its ERO performance during the exercise, and to ensure compliance with 10 CFR Part 50, Appendix E, Subsection IV.F.2.g.

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

b. Findings

No findings were identified.

1EP4 Emergency Action Level and Emergency Plan Changes

a. Inspection Scope

Since the last NRC inspection of this program area, multiple revisions have been made to the Radiological Emergency Plan and its implementing procedures. The licensee determined that, in accordance with 10 CFR 50.54(q), the Plan continued to meet the requirements of 10 CFR 50.47(b), and Appendix E to 10 CFR Part 50. The inspectors reviewed the Emergency Plan changes, and sampled implementing procedure changes made between July 2014 and July 2015, to evaluate for potential reductions in the effectiveness of the Plan. As this review was not documented in a Safety Evaluation Report, and does not constitute formal NRC approval of the changes, these changes remain subject to future NRC inspection in their entirety.

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

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

b. Findings

No findings were identified.

1EP8 Exercise Evaluation – Scenario Review

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 using IP 71114.08, "Exercise Evaluation - Scenario Review," to determine if the exercise would test major elements of the emergency plan as required by 10 CFR 50.47(b)(14).

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

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification

a. Inspection Scope

The inspectors sampled licensee submittals relative to the performance indicators (PIs) listed below for the period April 1, 2014, through March 31, 2015. 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 Performance Indicator Guideline," Revision 7, was used to confirm the reporting basis for each data element.

Emergency Preparedness Cornerstone

- ERO Drill/Exercise Performance (DEP)
- ERO Readiness
- Alert Notification System (ANS) Reliability

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

This inspection satisfied three inspection samples for PI verification on an annual basis.

b. Findings

No findings were identified.

4OA6 Meetings, Including Exit

On July 23, 2015, the inspection team presented the inspection results to Mr. R. Glover and other members of the plant staff. The inspectors confirmed that no proprietary information was provided during the inspection.

ATTACHMENT: Supplementary Information

SUPPLEMENTARY INFORMATION

KEY POINTS OF CONTACT

Licensee personnel

M. Austin, Fleet Emergency Preparedness
C. Caudell, Regulatory Affairs
J. Cole, Maintenance Superintendent
S. Connelly, Regulatory Affairs Lead Engineer
T. Cosgrove, Plant Manager
P. Fagan, Engineering Director
C. Freligh, Nuclear Oversight Superintendent
F. Giannone, Training Manager
R. Glover, Site Vice President
L. Grant, Emergency Preparedness
D. Hall, Nuclear Oversight
L. Hall, Emergency Preparedness
R. Hightower, Regulatory Affairs Manager
D. Hoffman, Nuclear Oversight Manager
K. Holbrook, Operations Manager
J. Kammer, Engineering General Manager
M. Nelson, Emergency Preparedness
J. Nuckles, Nuclear Oversight Lead Auditor
J. Overly, Fleet Emergency Preparedness Manager
S. Peavyhouse, Organizational Effectiveness Director
T. Pilo, Emergency Preparedness Manager

ITEMS OPENED, CLOSED, DISCUSSED, AND UPDATED

None

LIST OF DOCUMENTS REVIEWED

1EP1 Exercise Evaluation

Procedures

AD-EP-ALL-0202, Emergency Response Offsite Dose Assessment, Rev. 0
AD-EP-ALL-0802, Conducting Drills and Exercises, Rev. 0
AD-EP-ALL-0803, Evaluation and Critique of Drills and Exercises, Rev. 0
EPEOF-00, Activation and Operation of the Emergency Operations Facility, Rev. 20
EPCLA-01, Emergency Control, Rev. 42

Records and Data

H. B. Robinson Steam Electric Plant, Unit No. 2, Duke Energy, 2015 Biennial Emergency Preparedness Evaluation Exercise, July 21, 2015, Scenario Manual

Corrective Action Program Documents (Action Requests)

AR 759901, Simulator Emergency Response Data System (ERDS) communication not made with the Incident Response Center (IRC)
AR 759905, ERFIS wall chart mimic display
AR 759915, TSC confusion on spray train status
AR 759930, Southern Exposure exercise OSC improvement item
AR 759935, Controller book was not continuously maintained in hand
AR 759938, Southern Exposure exercise OSC chemistry sampling requirements
AR 759940, Guidance needed on how Security to establish safeguards bridge
AR 759948, Change needed to EPNOT-01 for release magnitude
AR 759950, Tracking of Operations from OSC
AR 759951, ERO radiation monitoring system data not accurate
AR 759958, During exercise simulator ERDS data not received by NRC
AR 759961, Slow to announce GE during exercise
AR 759962, WEBEOC status board usage gaps
AR 759963, EP exercise ENMON team air sample practice
AR 759964, Dose assessment did not reflect correct release pathway
AR 759965, ERO drill habitability
AR 759967, Piggy-back mode of cooling during exercise
AR 759980, WCC SRO was unable to log into his position title in WEBEOC
AR 759987, NRC DEP KPI PAR failure during graded exercise
AR 759995, Darlington County sirens MODBUS error
AR 759996, EP member tested sirens during NRC exercise
AR 760347, Simulator control room communications during NRC exercise
AR 760349, Near miss on exercise evaluator prompting

1EP4 Emergency Action Level and Emergency Plan Changes

Procedures

EMG-NGGC-0010, Emergency Plan Change Screening & Evaluation 10 CFR 50.54(q)(3), Rev. 4

Change Packages

PLP-007, Robinson Emergency Plan, Revs. 81, 82, 83, and 84
EPCLA-04, Emergency Action Level Technical Bases Document, Revs. 11 and 12
Emergency Action Level Matrix, Sheet 2, Rev. 6
EREG#692188, 50.54(q)(3) Screening Sheet, dated 6/20/2014
EREG#692188, 50.54(q)(3) Evaluation Sheet, dated 6/20/2014
EREG#740243, 50.54(q)(3) Screening Sheet, dated 6/20/2014
EREG#740243, 50.54(q)(3) Screening Sheet, dated 6/20/2014
EREG#741159, 50.54(q)(3) Screening Sheet, dated 6/16/2014
EREG#741159, 50.54(q)(3) Screening Sheet, dated 6/16/2014

Corrective Action Program Documents

PRR 760338, Change corporate communications location from Raleigh to Charlotte

1EP8 Exercise Evaluation

Records and Data

H. B. Robinson Steam Electric Plant Unit No. 2, Duke Energy 2015 Biennial Emergency Preparedness Evaluation Exercise, July 21, 2015, Scenario Manual

4OA1 Performance Indicator Verification

Procedures

Records and Data

2015 Emergency Response Organization Teams, Updated 1/31/2015

DEP opportunities documentation for second, third, and fourth quarters 2014 and first quarter 2015

Siren test data for second, third, and fourth quarters 2014 and first quarter 2015

Drill and exercise participation records of ERO personnel for second, third, and fourth quarters 2014 and first quarter 2015

Corrective Action Program Documents

LIST OF ACRONYMS USED

ANS	Alert and Notification System
AR	Action Request
DEP	Drill and Exercise Performance
DHS	Department of Homeland Security
EAL	Emergency Action Level
EOF	Emergency Operations Facility
ERDS	Emergency Response Data System
ERF	Emergency Response Facility
ERO	Emergency Response Organization
FEMA	Federal Emergency Management Agency
IP	Inspection Procedure
IRC	Incident Response Center
NEI	Nuclear Energy Institute
OSC	Operations Support Center
PIs	Performance Indicators
RSPS	Risk-Significant Planning Standard
TSC	Technical Support Center