



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

April 3, 2014

Mr. Kelvin Henderson
Site Vice President
Duke Energy Carolinas, LLC
Catawba Nuclear Station
4800 Concord Road
York, SC 29745-9635

**SUBJECT: CATAWBA NUCLEAR STATION - EMERGENCY PREPAREDNESS INSPECTION
REPORT 05000413/2014502 AND 05000414/2014502**

Dear Mr. Henderson:

On March 21, 2014, the U.S. Nuclear Regulatory Commission (NRC) completed an emergency preparedness inspection at the Catawba Nuclear Station. The enclosed inspection report documents the inspection results that were discussed on March 21, 2014, with Mr. T. Simril 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.

No findings were identified during this inspection.

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, 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 Agencywide Documents Access and Management System (ADAMS), 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 Nos. 50-413 and 50-414
License Nos. NPF-35 and NPF-52

Enclosure:
Inspection Report 05000413/2014502 and
05000414/2014502
w/Attachment: Supplementary Information

cc: Distribution via Listserv

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ADAMS: ☒ Yes ACCESSION NUMBER: ML14093A314 ☒ SUNSI REVIEW COMPLETE ☒ FORM 665 ATTACHED

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NAME	S. Sanchez	M. Speck	C. Fontana	A. Richardson	A. Hutto	R. Cureton	G. McCoy
DATE	4/ 1 /2014	4/ 2 /2014	4/ 2 /2014	4/ 2 /2014	4/ 1 /2014	4/ 1 /2014	4/ 2 /2014
E-MAIL COPY	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO
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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos: 05000413 and 05000414

License Nos: NPF-35 and NPF-52

Report Nos: 05000413/2014502 and 05000414/2014502

Licensee: Duke Power Company LLC.

Facility: Catawba Nuclear Station, Units 1 and 2

Location: York, SC

Dates: March 17 – 21, 2014

Inspectors: S. Sanchez, Senior Emergency Preparedness Inspector
M. Speck, Senior Emergency Preparedness Inspector
C. Fontana, Emergency Preparedness Inspector
A. Hutto, Senior Resident Inspector
A. Richardson, Physical Security Specialist
B. Cecere, Emergency Preparedness Specialist
R. Cureton, Resident Inspector

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

Enclosure

SUMMARY OF FINDINGS

Inspection Report (IR) 05000413/2014502; 05000414/2014502; 03/17/2014 – 03/21/2014;
Catawba Nuclear Station, Unit 1 and 2; Emergency Preparedness Baseline Inspection

The report covered an announced inspection by three emergency preparedness (EP) inspectors, one physical security specialist, one EP specialist, and two resident inspectors. No findings were identified. 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

None

B. Licensee-Identified Violations.

None

REPORT DETAILS

1. REACTOR SAFETY

Cornerstone: Emergency Preparedness

1EP4 Emergency Action Level and Emergency Plan Changes

a. Inspection Scope

Since the last NRC inspection of this program area, revisions 14-1 and 14-2 were made to the Radiological Emergency Plan (REP), and revisions 30 and 31 to RP/0/A/5000/001, Classification of Emergency (i.e., Emergency Action Levels). The licensee also made several changes to emergency plan implementing procedures, and determined that in accordance with 10 CFR 50.54(q), the changes made in these revisions resulted in no reduction in the effectiveness of the Plan; and that 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 REP and Emergency Action Level (EAL) changes and a sampling of the implementing procedure changes made between September 1, 2013, and March 15, 2014; to evaluate for potential reductions in the 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 (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 50, Appendix E, were used as reference criteria.

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

b. Findings

No findings were identified.

1EP7 Exercise Evaluation – Hostile Action Event

a. Inspection Scope

Title 10 CFR Part 50, Appendix E, Section IV.F.2.j, requires in part that nuclear power reactor licensees, in each 8-calendar-year exercise cycle, provide the opportunity for their emergency response organization (ERO) to demonstrate proficiency in the key skills necessary to respond to a hostile action (HA) directed at the plant site. The licensee designed the March 18, 2014, exercise to satisfy that requirement, and the NRC inspected the HA event exercise to assess the licensee's ability to effectively implement their Emergency Plan during a HA event, and adequately protect public

health and safety. This overall exercise inspection activity represented the completion of one sample on a biennial cycle.

The exercise evaluation consisted of the following reviews and assessments:

- The adequacy of the licensee's performance in the biennial exercise, conducted on March 18, 2014, 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 addresses 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, simulated Central Alarm Station, Technical Support Center (TSC), Operations Support Center (OSC), Joint Information Center, Incident Command Post (ICP), and the Emergency Operations Facility (EOF).
- A review of other performance areas, such as, the ERO's recognition of abnormal plant conditions; command and control, including interactions with site security staff, intra- and inter-facility communications; prioritization of mitigation activities; utilization of repair and field monitoring teams; interface with offsite agencies, including local law enforcement agencies; staffing and procedure adequacy; 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 adequacy of the licensee's post-exercise critiques, to evaluate licensee self-assessment of its ERO performance during the March 18, 2014, exercise 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.

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). This inspection activity represents one sample on a biennial cycle.

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 January 1, 2013, through December 31, 2013. 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 7, were 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 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 DEP through review of a sample of drill and event records. The inspectors reviewed selected training records to verify the accuracy of the ERO PI 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 reviewed various documents which are listed in the Attachment. This inspection activity satisfied one inspection sample for each of the three Emergency Preparedness PIs (i.e., DEP, ERO, and ANS) on an annual basis.

b. Findings

No findings were identified.

4OA6 Meetings, Including Exit

On March 21, 2014, the lead inspector presented the inspection results to Mr. T. Simril and other members of the plant staff. The inspectors confirmed that proprietary information was returned prior to completing the inspection.

ATTACHMENT: SUPPLEMENTARY INFORMATION

SUPPLEMENTARY INFORMATION

KEY POINTS OF CONTACT

Licensee personnel

T. Arlow, Emergency Preparedness Manager
M. Austin, Fleet Emergency Preparedness Manager
R. Duncan, Sr. Vice President
B. Foster, Nuclear Oversight Manager
T. Hamilton, Training Manager
R. Hart, Regulatory Affairs Manager
K. Henderson, Site Vice President
T. Jenkins, Maintenance Manager
C. Kamilaris, Organizational Effectiveness Manager
L. Keller, Engineering Manager
B. Kimray, Fleet Emergency Preparedness Exercise Coordinator
T. Kuhr, Fleet Emergency Preparedness Engineer
G. McCracken, Emergency Planning staff
G. Mitchell, Emergency Preparedness staff
J. Overly, Manager – Fleet Emergency Preparedness Programs
T. Pasour, Regulatory Compliance staff
K. Philips, Work Control Manager
R. Potter, Senior Nuclear Security Specialist
P. Simbrat, Regulatory Affairs staff
T. Simril, Station Manager
J. Smith, Radiation Protection Manager
S. West, Security Manager
E. Wylie, Manager Security Operations

LIST OF DOCUMENTS REVIEWED

1EP4 EAL and Emergency Plan Changes

Procedures

Emergency Preparedness Functional Area Manual Section 3.10, 10 CFR 50.54(q) Evaluations,
Rev. 12

Change Packages

SR/0/A/2000/003, "Activation of the Emergency Operations Facility," Revision 1
Emergency Plan, Revisions 14-1 and 14-2
RP/0/A/5000/001, Classification of Emergencies, Revisions 30 and 31
AP/0/A/5500/046, Hostile Aircraft Activity, Revisions 5 and 6

Corrective Action Documents

13-08691; Review of fleet EP operating experience
13-02474; E-plan needs revision on containment radiation monitors

1EP7 Exercise Evaluation – Hostile Action (HA) Event

Procedures

Catawba Nuclear Station Emergency Plan, Rev. 14-2
 Duke Energy Physical Security Plan (PSP), Revision 20
 RP/0/A/5000/001, Classification of Emergency, Rev. 31
 RP/0/A/5000/003, Alert, Rev. 47
 RP/0/A/5000/005, General Emergency, Rev. 51
 RP/0/A/5000/006A, Notification to States and Counties from the Control Room, Rev. 28
 RP/0/B/5000/013, NRC Notification Requirements, Rev. 36
 RP/0/A/5000/015, Core Damage Assessment, Rev. 7
 RP/0/B/5000/026, Site Response to Security Events, Rev. 16
 RP/0/B/5000/034, Incident Command Post (ICP) Radiation Protection Liaison Guidelines, Rev. 0
 RP/0/B/5000/035, Incident Command Post (ICP) Operations Liaison Guidelines, Rev. 0
 RP/0/A/5000/020, Technical Support Center (TSC) Activation Procedure, Rev. 32
 RP/0/A/5000/024, Operations Support Center (OSC) Activation Procedure, Rev. 29

Records and Data

Control Room, Technical Support Center, Operations Support Center, Emergency Operations Facility, Incident Command Post, Joint Information Center - Documentation packages (logs, event notification forms, Protective Action Recommendations, Media releases, and Radiological Dose Assessments)
 CNS NRC Graded Hostile Action Based (HAB) Exercise Critique Report

Corrective Action Documents

CR 676087; No instruments at ICP for habitability assessments
 CR 676114; Need guidance on maintaining units at power during HAB event
 13-10902; Security/LLEA interaction and table top drills
 13-11736; Review regarding Hostile Action Based Drills events for procedure RP/0/A/5000/026
 14-01932; Observed Hostile Action Base practice at the Incident Command Post
 14-02877; Initial ERO communications challenges
 14-02878; Determine appropriate beeper battery strategy in HAB event
 14-02880; TSC KI procedure mis-filed
 14-02881; Communications issues with ERO members
 14-02885; Plant PA volume too low
 14-02886; ERO members reporting to TSC while in duck/cover
 14-02926; Need to improve initial communications with ERO on HAB events
 14-02928; Failure of facility objective: JIC Timely Exchange of Public Information
 14-02933; Need for fleet guidance for performing personnel accountability post-attack
 14-02935; Confusion on status of release status
 14-02937; Revise security procedure
 14-02938; Weapon control for injured on-duty officer
 14-02972; Need RP procedures at ICP
 14-03002; Incomplete information provided in follow-up notifications
 14-03003; Joint Information Center communications
 14-03004; Incident Command Post ambient noise level

1EP8 Exercise Evaluation – Scenario Review

Records and Data

Catawba Nuclear Station 2014 Hostile Action Based Exercise Scenario

Section 4OA1: Performance Indicator Verification

Procedures

AD-EP-ALL-0001, Emergency Preparedness Key Performance Indicators, Rev. 0
NSD 225, NRC Performance Indicators, Rev. 8

Records and Data

DEP opportunities documentation for 2013
Siren performance data for 2013
ERO training records for 2013

Corrective Action documents

12-08896; Siren performance improvement
13-05280; Siren performance improvement
13-06102; Missed EAL classifications during annual NRC exam ASEs
13-10186; ERO staffing is not equitable and not being addressed by station management
13-11653; Radiation Protection Staff augmentation staff to FMT vans
13-11044; Closed C-13-11653 through cross training

LIST OF ACRONYMS USED

ANS	Alert and Notification System
DEP	Drill and Exercise Performance
DHS	Department of Homeland Security
EAL	Emergency Action Level
EOF	Emergency Operations Facility
EP	Emergency Preparedness
ERO	Emergency Response Organization
FEMA	Federal Emergency Management Agency
HA	Hostile Action
ICP	Incident Command Post
IPs	Inspection Procedures
IR	Inspection Report
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
OSC	Operations Support Center
PIs	Performance Indicators
RSPS	Risk Significant Planning Standard
TSC	Technical Support Center