



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

March 30, 2010

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

SUBJECT: CATAWBA NUCLEAR STATION - NRC EMERGENCY PREPAREDNESS  
INSPECTION REPORT 05000413/2010-501 AND 05000414/2010-501

Dear Mr. Morris:

On March 12, 2010, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Catawba Nuclear Station, Units 1 and 2. The enclosed inspection report documents the inspection results, which were discussed on March 12, 2010, with you 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,  
*/RA/*

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

Docket No.: 50-413, 50-414  
License No.: NPF-35, NPF-52

Enclosure: Inspection Report 05000413/2010-501 and 05000414/2010-501  
w/Attachment: Supplemental Information

cc w/encl.: (See page 2)

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Letter to J. R. Morris from Brian Bonser dated March 30, 2010

SUBJECT: CATAWBA NUCLEAR STATION - NRC EMERGENCY PREPAREDNESS  
INSPECTION REPORT 05000413/2010-501 AND 05000414/2010-501

Distribution w/encl:

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OE Mail

RIDSNNRRDIRS

PUBLIC

RidsNrrPMCatawba Resource

**U.S. NUCLEAR REGULATORY COMMISSION**

**REGION II**

Docket Nos.: 05000413, 05000414

License Nos.: NPF-35, NPF-52

Report No.: 05000413/2010-501 and 05000414/2010-501

Licensee: Duke Power Company LLC.

Facility: Catawba Nuclear Station, Units 1 and 2

Location: York, SC

Dates: March 8, 2010 through March 12, 2010

Inspectors: Lee Miller, Senior Emergency Preparedness Inspector  
Jim Beavers, Emergency Preparedness Inspector  
Ron Cureton, Resident Inspector

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

Enclosure

## SUMMARY OF FINDINGS

IR 05000413/2010-501 and 05000414/2010-501; 03/08/2010 – 03/12/2010; Catawba Nuclear Station, Units 1 and 2; Baseline Inspection

The report covered an announced inspection by two emergency preparedness inspectors and one resident inspector. 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 March 9, 2010, 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, 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 March 11, 2010, 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.

The inspector reviewed various documents which are listed in the Attachment.

Enclosure

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, no change has been implemented to Revision 09-1 of the Catawba Emergency Plan. The inspectors conducted a sampling review of the implementing procedure changes made between June 1, 2009 and February 28, 2010 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 inspector 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

The inspector sampled licensee submittals relative to the PIs listed below for the period January 1, 2009 through Dec 31, 2009. 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 to this report.

b. Findings

No findings of significance were identified.

4OA6 Meetings, Including Exit

On March 12, 2010, the lead inspector presented the inspection results to Mr. J. Morris and other members of your staff. The inspector confirmed that proprietary information was provided and returned to your staff during the inspection.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## SUPPLEMENTAL INFORMATION

### KEY POINTS OF CONTACT

#### Licensee personnel

J. Morris, Site Vice President  
G. Hamrick, Station Manager  
T. Arlow, Emergency Planning Manager  
M. Austin, Fleet Emergency Preparedness Manager  
G. Mitchell, Emergency Planner  
K. Phillips, Safety Assurance Manager  
R. Smith, Emergency Planner

### ITEMS OPENED, CLOSED, AND DISCUSSED

NONE

### LIST OF DOCUMENTS REVIEWED

#### 1EP1 Exercise Evaluation

##### Procedures

Catawba Nuclear Station Emergency Plan, Rev. 09-1  
RP/0/A/5000/001, Classification of Emergency, Rev. 20  
RP/0/A/5000/003, Alert, Rev. 42  
RP/0/A/5000/004, Site Area Emergency, Rev. 44  
RP/0/A/5000/005, General Emergency, Rev. 45  
RP/0/A/5000/006A, Notification to States and Counties from the Control Room, Rev. 23  
RP/0/A/5000/006B, Notification to States and Counties from the Technical Support Center, Rev. 025  
RP/0/A/5000/010, Conducting a Site Assembly or Preparing the Site for an Evacuation, Rev. 22  
RP/0/B/5000/013, NRC Notification Requirements, Rev. 30  
RP/0/A/5000/015, Core Damage Assessment, Rev. 7  
RP/0/A/5000/018, Emergency Worker Dose Extension, Rev. 2  
RP/0/A/5000/020, Technical Support Center (TSC) Activation Procedure, Rev. 24  
RP/0/A/5000/024, Operations Support Center (OSC) Activation Procedure, Rev. 22  
SH/0/B/2005/001, Emergency Response Offsite Dose Projections, Rev. 6  
SH/0/B/2005/003, Distribution of Potassium Iodide Tablets in the Event of a Radioiodine Release, Rev. 1  
SR/0/B/2000/003, Activation of the Emergency Operations Facility, Rev. 19  
SR/0/B/2000/004, Notification to States and Counties from the Emergency Operations Facility, Rev. 14

##### Records and Data

Control Room, Technical Support Center, Operations Support Center, Joint Information Center - Documentation packages (logs, event notification forms, Protective Action Recommendations, Media releases, and Radiological Dose Assessments)

Attachment

Problem Investigation Process

C-10-01445, Annulus Ventilation System scenario was unrealistic  
 C-10-01482, Raddose V program for dose assessment failed to include zone A-2 when required  
 C-10-01492, March 9, 2010 graded exercise RSPS items  
 C-10-01504, Drill player dismissed from drill due to having a side discussion with an observer  
 C-10-01517, Crew evaluation for March 9, 2010, graded exercise  
 C-10-01523, Repeat of 2008 exercise corrective actions  
 C-10-01520, Insufficient Potassium Iodine issue identified during the graded exercise  
 C-10-01521, Improvement items related to simulator crew involvement as members of ERO  
 C-10-01522, Field Monitoring Coordination issues during 03/09/10 CNS graded exercise

Section 1EP4: Emergency Action Level and Emergency Plan ChangesChange packages for Plans and Procedures

RP/0/A/5000/007, Natural Disaster and Earthquake, Rev. 30  
 HP/0/B/1009/009, Guidelines for Accident and Emergency Response, Rev. 44

Section 4OA1: Performance Indicator VerificationProcedures

Emergency Planning Functional Area Manual (EPFAM), Rev. 16

Records and Data

DEP opportunities documentation for 1st, 2nd, 3rd, and 4th Quarters 2009  
 Drill and exercise participation records of ERO personnel 1st, 2nd, 3rd, and 4th Quarters 2009  
 Siren test data 1st, 2nd, 3rd, and 4th Quarters 2009  
 Various ERO Personnel Qualification and Participation records

## LIST OF ACRONYMS

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