



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

October 20, 2015

Mr. Thomas D. Gatlin  
Vice President - Nuclear Operations  
South Carolina Electric & Gas Company  
Virgil C. Summer Nuclear Station  
P.O. Box 88 (Mail Code 800)  
Jenkinsville, SC 29065

**SUBJECT: VIRGIL C. SUMMER UNIT 1 NUCLEAR STATION – U.S. NUCLEAR  
REGULATORY COMMISSION EMERGENCY PREPAREDNESS INSPECTION  
REPORT 05000395/2015502**

Dear Mr. Gatlin:

On September 25, 2015, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Virgil C. Summer Nuclear Station. The enclosed inspection report (IR) documents the inspection results that were discussed on September 24, 2015, with you and other members of your staff.

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. 50-395  
License Nos. NPF-12

Enclosure:  
IR 05000395/2015502  
w/Attachment: Supplementary Information

cc: Distribution via Listserv

October 20, 2015

Mr. Thomas D. Gatlin  
Vice President - Nuclear Operations  
South Carolina Electric & Gas Company  
Virgil C. Summer Nuclear Station  
P.O. Box 88 (Mail Code 800)  
Jenkinsville, SC 29065

SUBJECT: V.C. SUMMER UNIT 1 NUCLEAR STATION – U.S. NUCLEAR REGULATORY  
COMMISSION EMERGENCY PREPAREDNESS INSPECTION REPORT  
05000395/2015502

Dear Mr. Gatlin:

On September 25, 2015, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your VC Summer Nuclear Station. The enclosed inspection report (IR) documents the inspection results that were discussed on September 24, 2015, with you and other members of your staff.

No findings were identified during this inspection.

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NAME	S. Sanchez	C. Fontana	W. Loo	J. Reece	A. Masters	B. Bonser
DATE	10/ 13 /2015	10/ 13 /2015	10/ 13 /2015	10/ 13 /2015	10/ 13 /2015	10/ 20 /2015
E-MAIL COPY	<b>YES</b> NO	<b>YES</b> NO	<b>YES</b> NO	<b>YES</b> NO	<b>YES</b> NO	<b>YES</b> NO

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Letter to Thomas D. Gatlin from Brian R. Bonser dated October 20, 2015

SUBJECT: V.C. SUMMER UNIT 1 NUCLEAR STATION – U.S. NUCLEAR REGULATORY  
COMMISSION EMERGENCY PREPAREDNESS INSPECTION REPORT  
05000395/2015502

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**U.S. NUCLEAR REGULATORY COMMISSION**

**REGION II**

Docket No: 05000395

License No: NPF-12

Report No: 05000395/2015502

Licensee: South Carolina Electric and Gas

Facility: Virgil C. Summer Nuclear Station, Unit 1

Location: Jenkinsville, SC

Dates: September 21–25, 2015

Inspectors: Steven Sanchez, Senior Emergency Preparedness Inspector  
Christopher Fontana, Emergency Preparedness Inspector  
Wade Loo, Senior Health Physicist Inspector  
James Reece, Senior Resident inspector

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

Enclosure

## **SUMMARY**

Inspection Report (IR) 05000395/2015502; 9/21/2015 – 9/25/2015; V.C. Summer Nuclear Station, Unit 1; Exercise and Baseline Inspection

This report covers an announced inspection by two emergency preparedness inspectors, one senior health physicist inspector, and one senior resident inspector. 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," Revision 5.

No findings were identified during this inspection.

## 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 September 22, 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 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, Operations Support Center, and Emergency Operations Facility.
- 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 September 24, 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, several revisions were made to the Radiological Emergency Plan. 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 changes and sampled implementing procedure changes 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, 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 evaluation 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 June 30, 2015. To verify the accuracy

of the PI data reported during that period, PI definitions and guidance contained in Nuclear Energy Institute 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, was used to confirm the reporting basis for each data element.

#### Emergency Preparedness Cornerstone

- Emergency Response Organization Drill/Exercise Performance (DEP)
- Emergency Response Organization
- 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 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 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 September 24, 2015, the inspection team presented the inspection results to Mr. T. Gatlin 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. Cekovsky, Emergency Preparedness Specialist  
M. Coleman, Manager, Radiation Protection and Safety  
G. Douglass, Manager, Nuclear Protection Services  
M. Fanguy, Emergency Preparedness Specialist  
T. Gatlin, Vice President, Nuclear Operations  
M. Harmon, Manager, Chemistry Services  
L. Harris, Manager, Quality Systems  
R. Haselden, General Manager, Organizational / Development Effectiveness  
R. Justice, Manager, Nuclear Operations  
G. Lippard, General Manager, Nuclear Plant Operations  
E. Moore, Emergency Preparedness Specialist  
M. Moore, Supervisor, Nuclear Licensing  
R. Ray, Manager, Planning and Support  
S. Reese, Licensing Specialist  
D. Shue, Manager, Maintenance Services  
W. Stuart, General Manager, Engineering Services  
T. Tharp, Supervisor, Emergency Preparedness  
B. Thompson, Manager, Nuclear Licensing  
R. Williamson, Manager, Emergency Preparedness  
S. Zarandi, General Manager, Nuclear Support Services

### **ITEMS OPENED, CLOSED, DISCUSSED, AND UPDATED**

None

### **LIST OF DOCUMENTS REVIEWED**

#### **1EP1 Exercise Evaluation**

##### **Procedures**

EP-100, Radiation Emergency Plan, Rev. 65  
EPP-001, Activation and Implementation of Emergency Plan, Rev. 30  
EPP-001.1, Unusual Event, Rev. 9  
EPP-001.2, Alert, Rev. 9  
EPP-001.3, Site Area Emergency, Rev. 9  
EPP-001.4, General Emergency, Rev. 9  
EPP-020, Emergency Personnel Exposure Control, Rev. 12  
EPP-023, Technical Support Center, Rev. 20  
EPP-105, Conduct of Drills and Exercises, Rev. 11  
EPP-108, Emergency Action Level Technical Basis Document, Rev. 0  
EPP-110, Emergency Action Level Reference Manual, Rev. 0

Records and Data

EPD-15-01A, September 22, 2015, B-ERO Evaluated Exercise, V.C. Summer Station, Unit 1, Scenario Manual

Corrective Action Program Documents (Condition Reports)

CR-15-04449, Risk significant planning standard items identified in the 9/22/2015 NRC evaluated exercise

CR-15-04450, Items identified in the 9/22/2015 NRC evaluated exercise

CR-15-04512, NRC comments from 2015 evaluated exercise inspection

**1EP4 Emergency Action Level and Emergency Plan Changes**Procedures

SAP-0127, Emergency Preparedness, Rev. 4

Records and Data

10 CFR 50.54(q) Screening for Radiation Emergency Plan EP-100, Rev. 65, dated 8/31/2015

10 CFR 50.54(q) Evaluation for Radiation Emergency Plan EP-100, Rev. 65, dated 8/31/2015

10 CFR 50.54(q) Screening for Radiation Emergency Plan EP-100, Rev. 64, dated 11/19/2014

10 CFR 50.54(q) Evaluation for Radiation Emergency Plan EP-100, Rev. 64, dated 11/19/2014

10 CFR 50.54(q) Screening for Emergency Action Level Upgrade to NEI-99-02, Rev. 6, dated 9/9/2013

10 CFR 50.54(q) Evaluation for Emergency Action Level Upgrade to NEI-99-02, Rev. 6, dated 10/2/2013

V.C. Summer Nuclear Station, Alert and Notification System Design Report, Rev. 1

**1EP8 Exercise Evaluation – Scenario Review**Procedures

EPD-15-01A, September 22, 2015, B-ERO Evaluated Exercise, V.C. Summer Station, Unit 1, Scenario Manual

**40A1 Performance Indicator Verification**Procedures

EPP-106, Emergency Preparedness Performance Indicator Procedure, Rev. 3

CAPG-01, Corrective Action Program Guidelines, Rev. 16

Corrective Action Program Documents

CR-13-04374, Siren # L-80 failed bi-weekly silent test due to communication failure

CR-14-03156, Siren communication failure

CR-14-03242, Siren # 56 failed bi-weekly silent test due to chopper failure

CR-14-03693, Siren battery failure

CR-14-05949, Failed opportunity during a DEP scenario

CR-15-01557, Battery needed replacement for Siren # N-28

CR-15-02297, Communication failure – cleared on second re-poll for Siren # F-59

CR-15-02539, An Unusual Event was declared at 0525 on 6/7/15 due to HU4.1

CR-15-02541, Unauthorized person within the boundary of the owner controlled area (OCA)

CR-15-03054, Battery replacement required for Siren # F-14

Records and Data

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

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

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

**LIST OF ACRONYMS USED**

ANS	Alert and Notification System
DEP	Drill and Exercise Performance
DHS	Department of Homeland Security
ERO	Emergency Response Organization
FEMA	Federal Emergency Management Agency
IP	Inspection Procedure
PIs	Performance Indicators