



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

June 12, 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 830)  
Jenkinsville, SC 29065

**SUBJECT: NOTIFICATION OF INSPECTION AND REQUEST FOR INFORMATION,  
VIRGIL C. SUMMER NUCLEAR STATION**

Dear Mr. Gatlin:

During the period of July 27 – 31, 2015, the U.S. Nuclear Regulatory Commission (NRC) will conduct a baseline radiation safety inspection at the V.C. Summer Nuclear Station. The inspection will evaluate activities in the Occupational and Public Radiation Safety cornerstones, using NRC Inspection Procedures 71124.06, 71124.07, 71124.08, and 71151.

Experience has shown that this inspection is resource-intensive for both the NRC inspectors and your staff. In order to minimize the impact to your onsite resources and to ensure a productive inspection, we have enclosed a request for documents needed for this activity. It is important that all of these documents are up-to-date, and complete, thereby minimizing the number of additional documents requested during the preparation, and/or the onsite portions of the inspection. The inspector has requested that the subject informational material be provided in CD format on or before July 13, 2015.

We have discussed the schedule for these inspection activities with your staff, and understand that our regulatory contact for this inspection will be Susan Reese of your organization. If there are any questions about this inspection or the material requested, please contact the lead inspector, Robert Kellner at 404-997-4508, or the Plant Support Branch 1 Chief, Brian Bonser at 404-997-4653.

This letter does not contain new or amended information collection requirements subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing information collection requirements were approved by the Office of Management and Budget, under control number 3150-0011. The NRC may not conduct or sponsor, and a person is not required to respond to, a request for information or an information collection requirement, unless the requesting document displays a currently valid Office of Management and Budget control number.

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, and its Enclosure, 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 Web site at <http://www.nrc.gov/reading-rm.html> (the Public Electronic Reading Room).

Sincerely,

**/RA/**

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

Docket No. 50-395  
License No. NPF-12

Enclosure  
Pre-Inspection Document Request

cc: Distribution via Listserv

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, and its Enclosure, 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 Web site at <http://www.nrc.gov/reading-rm.html> (the Public Electronic Reading Room).

Sincerely,

**/RA/**

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

Docket No. 50-395  
License No. NPF-12

Enclosure  
Pre-Inspection Document Request

cc: Distribution via Listserv

**DISTRIBUTION:**

S. Rose, RII, DRP  
S. Ninh, RII, SR PE  
B. Bishop, RII, PE  
J. Parent, RII, RIDP  
C. Dykes, RII, Acting PE  
J. Reece, RII, SRI  
E. Coffman, RII, RI  
S. Price, RII, ORA/RC  
P. Lee, RII, EICS  
RIDSNNRRDIRS  
PUBLIC

☒ PUBLICLY AVAILABLE

☐ NON- PUBLICLY AVAILABLE

☐ SENSITIVE

☒ NON-SENSITIVE

ADAMS: ☒ Yes ACCESSION NUMBER: ML15166A026 ☒ SUNSI REVIEW COMPLETE

☒ FORM 665 ATTACHED

OFFICE	RII:DRS/PSB1	RII:DRS/PSB1					
SIGNATURE	BRB1 for RXK3	BRB1					
NAME	R. Kellner	B. Bonser					
DATE	6/ 12 /2015	6/ 12 /2015					
E-MAIL COPY	YES NO	YES NO					

OFFICIAL RECORD COPY

**PRE-INSPECTION DOCUMENT REQUEST**  
**Public Radiation Safety Cornerstone**

Licensee: V.C. Summer Nuclear Station

Docket Number(s): 05000395

Inspection Dates: July 27 – 31, 2015

Procedures:

71124.06 - Radioactive Gaseous and Liquid Effluent Treatment  
71124.07 - Radiological Environmental Monitoring Program  
71124.08 - Radioactive Solid Waste Processing and Radioactive Material Handling,  
Storage, and Transportation  
71151 - Performance Indicator Verification

**Note:** This is a broad list of the documents the NRC inspectors will be interested in obtaining and reviewing prior to the onsite inspection visit. The current version of these documents is expected unless specified otherwise. Electronic media is preferred, if readily available. (The preferred file format is Word or searchable “pdf” files on CDROM. Please provide three copies of each electronic media device submitted.) Information in the “document lists” should contain enough information to be easily understood by someone who has knowledge of the subject. The lead inspector can answer questions regarding questions on specific information needs with licensee staff, and may request additional documents.

Documentation is requested from September 1, 2012, to the present, unless otherwise noted, for the inspection procedures. We would prefer as much of the information as possible in electronic form. An index to the CD contents is also helpful. For those items requesting a list of documents/areas, the inspector will select documents/areas from the list for onsite review.

If you have any questions, please call Robert Kellner at 404-997-4508. Thank you in advance for all of your effort in putting together this material.

**General Information Needed**

- Telephone numbers of contacts for the identified inspection areas.
- Plant, Chemistry, and Radiation Protection organizational charts, including personnel involved in effluent sampling and reporting, Radiological Environmental Monitoring Program (REMP) sampling and reporting, and solid radwaste processing and transportation of radwaste/radioactive materials (RAM).
- List of radiation protection procedures.
- List of effluent sampling and reporting procedures.
- List of REMP sampling and reporting procedures.
- Current Part 61 Analysis Results for Dry Active Waste (DAW).
- Procedures for issuing and assessing issues for risk significance and followup actions (i.e., Corrective Action Program procedures).

Enclosure

- Procedure(s) for identifying, notification, tracking, and correcting performance indicators (PI) occurrences.
- Current version/revision of the Offsite Dose Calculation Manual (ODCM).
- Annual Radiological Environmental Operating Report (AREOR) for Calendar Year (CY) 2012, CY2013, and CY 2014.
- Annual Radiological Effluent Release Report (ARERR) documents for CY 2012, CY2013, and CY 2014.
- List of all PIs and copies of associated corrective action reports for Occupational Exposure Control Effectiveness and Radiological Effluent Technical Specifications (RETS)/ODCM Radiological Effluent Occurrences.
- Audits and self-assessments performed since September 2012 that encompass the areas of (1) effluent monitoring program and implementation; (2) REMP monitoring program and implementation; (3) liquid and solid radwaste processing; and (4) transportation of RAM/radwaste.

#### **71124.06 - Radioactive Gaseous and Liquid Effluent Treatment**

- Provide Procedures/Guidance Documents for:
  - collection, analysis, release and dose evaluations for gaseous and/or liquid effluents, including guidance for both batch and continuous modes.
  - determination of set-points for main plant gaseous and liquid effluent discharge pathways.
  - groundwater monitoring program.
- Provide a list of any significant changes to the ODCM since September 2012.
- Provide a list of significant changes to the radioactive effluent processing systems since September 2012.
- Provide a list of any non-radioactive systems that have become contaminated since September 2012.
- Provide a list of any unmonitored, unplanned, or otherwise abnormal gaseous or liquid releases identified since September 2012.
- Provide last two gaseous effluent permits and last two liquid effluent permits.
- Provide a list of 10 CFR 50.75(g) entries made since September 2012.
- Provide system health reports for radiological effluent/process monitoring systems since September 2012.
- Provide a list of the main liquid and gaseous effluent pathway process monitors listed as out-of-service (OOS) since September 2012. *[Note: Do not include monitors listed as OOS for less than 24 hours.]*
- List of significant changes to the effluent monitoring program since September 2012, as documented within the ODCM.
- Provide groundwater monitoring results since September 2012.
- Inter-laboratory comparison program results (onsite count room) since September 2012.
- Results of last two filtration system (HEPA/Charcoal) surveillances for gaseous effluent pathways.
- Copies of all audits, self-assessments, and/or reviews of liquid and gaseous effluent monitoring program activities since September 2012. The data should include any reviews conducted of vendor activities and their facilities.
- List of condition reports (CRs) generated since September 2012, because of gaseous and liquid effluent processing, and/or ODCM related activities. This should be a list of

corrective action documents containing a CR number and brief description, not full CRs.  
*[Note: Only titles/summary statement should be provided for use by the inspectors to select a sample of issues for in-depth review.]*

### **71124.07 - Radiological Environmental Monitoring Program**

#### **Prior to the Onsite Inspection**

- Provide Procedures/Guidance Documents for:
  - collection and analysis of environmental samples.
  - calibration and maintenance of REMP air and/or water samplers.
  - calibration of meteorological monitoring instrument loop (wind speed & direction, air temperature sensors currently in use).
  - monthly/quarterly meteorological instrumentation surveillance requirements (control room and local tower activities).
- Records for the last two calibrations of the following:
  - REMP air and water sampling equipment (as applicable).
  - meteorological monitoring instruments (wind speed & direction, air temperature).
- Detailed inter-laboratory comparison program results (environmental lab) since September 2012.
- Copies of all audits, self-assessments, and/or reviews of REMP activities since September 2012. The data should include any reviews conducted of vendor activities and their facilities (e.g., environmental lab).
- List of systems, structures, or components (SSCs), identified as credible mechanism(s) having the potential for release of licensed material to the groundwater environs.
- List of significant REMP changes (sample locations, sample frequency, type of samples, etc.) documented within the ODCM since September 2012.
- List of CRs generated as a result of REMP activities since September 2012. *[Note: Only titles/summary statement should be provided for use by the inspectors to select a sample of issues for in-depth review.]*

### **71124.08 - Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation**

- Provide Procedures/Guidance Documents describing licensee compliance with 10 CFR Parts 20, 61, and 71, and 49 CFR Parts 170-189. Procedures/manuals should include:
  - Solid and liquid radwaste processing procedures.
  - Procedure(s) for transferring radioactive waste resin and sludge discharges into shipping/disposal containers.
  - Waste stream mixing and/or sampling procedures, including: (1) waste concentration averaging; (2) use of scaling factors and calculations used to account for difficult-to-measure radionuclides; and (3) ensuring waste stream composition data accounts for changing operational parameters.
  - Shipping/transportation procedures.
  - Cask loading and closure procedures (licensee and vendor) applicable to last three cask transports.
  - List of RAM storage areas, including satellite radiological controlled areas (RCAs).

- Monitoring impact of long-term storage (e.g., buildup of gases produced by waste decomposition, chemical reactions, container deformation, loss of container integrity, rerelease of free-flowing water).
- Process Control Program (PCP).
- Most recent radio-chemical sample analysis results (i.e., "10 CFR Part 61" analysis) for each of the radioactive waste streams (e.g., DAW, ion exchange resins, mechanical filters, and sludges and activated materials).
- List and documentation of any changes made to the radioactive waste processing systems (liquid and solid), and/or the PCP since September 2012, and associated 10 CFR Part 50.59 documentation, as appropriate.
- Copies of applicable transport cask Certificate of Compliance for the last three transport cask shipments.
- Training and qualification records for personnel responsible for radioactive waste processing and RAM material shipment preparation activities.
- Log of RAM shipments (LSA I, II, III; SCO I, II, Type A, or Type B) since September 2012. (The inspectors will select three to five packages to review in detail.)
- List of corrective action reports generated since September, 2012, involving radioactive waste and RAM/waste transportation.
- Available for onsite review during the inspection:
  - Site drawing(s) showing the location of all stored RAM and all stored radioactive waste.
  - Plant drawings sufficient to permit the inspector to walkdown the liquid and solid radioactive waste processing systems, to verify current system configuration/operation agree with the descriptions contained in the Updated Final Safety Analysis Report (UFSAR) and in the PCP.
  - Documentation describing the status of any radioactive waste process equipment that is not operational and/or is abandoned in place.
  - Information concerning the site's waste disposal volume and waste reduction program.
  - Training curriculum and primary lesson plans for qualifying persons, including vendors, for radwaste processing, packaging, and making shipments of RAM and radioactive waste as specified by 49 CFR 172.

#### **71151 - Performance Indicator Verification**

- Monthly PI reports since May 1, 2014, and copies of associated CRs for any RETS/ODCM Radiological Effluent occurrences.
- Liquid and gaseous effluent release permits which specify the monthly, quarterly, and annual curies released by isotope and associated public dose assessments since May 1, 2014.
- List of all corrective action documents since May 1, 2014, using keywords such as: High Radiation Area (HRA), Locked High Radiation Area (LHRA), Very High Radiation Area (VHRA), unintended dose, unlocked door, etc.
- List of all electronic dosimeter (ED) dose rate alarms > 1 R/hr and all ED dose alarms since May 1, 2014.

### **Assistance Requested During Onsite Inspection**

- An inspector will need to accompany the weekly environmental sample collection run.
- An inspector will need to tour the Meteorological Tower and will need to be able to discuss reliability and data recovery issues.
- An inspector will need to observe effluent sample collection and walk-down and discuss effluent monitors and processing.
  
- An inspector will need to walk-down and discuss liquid and solid waste processing systems, including out of service and equipment abandoned in place or no longer used.
- An inspector will need to observe any shipments or receipts of radioactive material.

#### **Inspector Contact Information**

Robert Kellner  
404-997-4508  
[robert.kellner@nrc.gov](mailto:robert.kellner@nrc.gov)

#### **Mailing Address**

US Nuclear Regulatory Commission,  
Region II  
ATTN: Robert Kellner  
245 Peachtree Center Ave., NE  
Suite 1200  
Atlanta, GA 30303

### **LIST OF ACRONYMS**

AREORs	Annual Radiological Environmental Operating Reports
ARERRs	Annual Radiological Effluent Release Reports
CRs	Condition Reports
CY	Calendar Year
DAW	Dry Active Waste
ED	Electronic Dosimeter
HRA	High Radiation Area
LHRA	Locked High Radiation Area
ODCM	Offsite Dose Calculation Manual
OOS	Out-of-Service
PCP	Performance Control Program
PI	Performance Indicator
RAM	Radioactive Material
RCAs	Radiological Controlled Areas
REMP	Radiological Environmental Monitor Programs
RETS	Radiological Effluent Technical Specifications
SSCs	Systems, Structures, or Components
UFSAR	Updated Final Safety Analysis Report
VHRA	Very High Radiation Area