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July 13, 2015

U. S. Nuclear Regulatory Commission, Region II  
Attn: Robert Kellner  
245 Peachtree Center Avenue NE, Suite 1200  
Atlanta, GA 30303-1257

Dear Mr. Kellner:

Subject: VIRGIL C. SUMMER NUCLEAR STATION UNIT 1  
DOCKET NO. 50-395  
OPERATING LICENSE NO. NPF-12  
NRC REQUEST FOR INFORMATION  
BASELINE RADIATION SAFETY INSPECTION

Reference: Brian R. Bonser, Chief, NRC Plant Support Branch 1, letter to Thomas D. Gatlin, June 12, 2015.

As requested in the referenced letter, South Carolina Electric & Gas Company hereby submits the requested information required to support the Virgil C. Summer Nuclear Station (VCSNS) baseline radiation safety inspection scheduled for June 27-31, 2015. The requested items have been organized and provided on the enclosed disk.

Should you have any questions, please contact Susan Reese at (803) 345-4591.

Very truly yours,

Bruce L. Thompson

SBR/BLT/ts

Enclosure (1 Disk – VCSNS 2015 Baseline NRC Radiation Protection Inspection)

c: (without enclosure unless noted)

M. Coleman  
Document Control Desk  
NRC Resident Inspector  
S. A. Williams

RTS (CR-15-03044)  
File (815.01)  
PRSF (RC-15-0116)

RGNDI

**Information Request**  
**V. C. Summer Baseline Radiation Safety Inspection**

Licensee: V.C. Summer Nuclear Station

Docket Number(s): 50-395

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

**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).
- 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).

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

- 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.