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

October 19, 2009

Mr. David A. Heacock
President and Chief Nuclear Officer
Virginia Electric and Power Company
Innsbrook Technical Center
5000 Dominion Boulevard
Glen Allen, VA 23060-6711

SUBJECT: SURRY NUCLEAR POWER STATION, NOTIFICATION OF INSPECTION AND REQUEST FOR INFORMATION

Dear Mr. Heacock:

On November 2-6 and November 16-20, 2009, the NRC will perform the baseline Occupational Radiation Safety Inspection at the Surry Nuclear Power Station (NRC Inspection Procedures 71121.01, 71121.02, and 71122.02 and the radiation safety sections of 71151). Experience has shown that this inspection is resource intensive both for the NRC inspectors and your staff. In order to minimize the impact during the outage to your on-site resources and to ensure a productive inspection, we have enclosed a request for documents needed for this inspection.

It is important that all of these documents are up to date and complete, in order to minimize the number of additional documents requested during the preparation and/or the onsite portions of the inspection. There will not be a bagman trip to collect these documents and therefore we request that they be provided to the inspectors at the site on November 2, 2009.

We have discussed the schedule for these inspection activities with your staff and understand that our regulatory contact for this inspection will be Jerry Ashley of your organization. If there are any questions about this inspection or the material requested, please contact the lead inspector, Ruben Hamilton, at (404) 562-4672, or the Plant Support Branch 1 Chief, Brian Bonser, at (404) 562-4653.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," 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 document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Should you have any questions concerning this letter, please contact us.

Sincerely,

/RA/

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

Docket No. 50-280, 50-281
License No. DPR-32, DPR-37

Enclosure: Pre-Inspection Document Request

cc w/Encl: (See page 3)

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X PUBLICLY AVAILABLE ☐ NON-PUBLICLY AVAILABLE ☐ SENSITIVE X NON-SENSITIVE

ADAMS: ☐ Yes ACCESSION NUMBER:_____ ☐ SUNSI REVIEW COMPLETE

OFFICE	RII:DRS	RII:DRS					
SIGNATURE	BRB /RA for/	BRB /RA/					
NAME	WLoo	BBonser					
DATE	10/19/2009	10/19/2009					
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY DOCUMENT NAME: G:\DRSII\PSB1\INFORMATION REQUEST LETTERS\SURRY\SURRY 20090005 DOCREQ.DOC

cc w/encl:
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Letter to David A. Heacock from Brian Bonser dated October 19, 2009

SUBJECT: SURRY NUCLEAR POWER STATION, NOTIFICATION OF INSPECTION AND REQUEST FOR INFORMATION

Distribution w/encl:
C. Evans, RII
L. Slack, RII
OE Mail
RIDSNRRDIRS
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Pre-Inspection Document Request

Occupational Radiation Safety Cornerstone

Licensee: Surry Nuclear Power Station

Docket Numbers: 50-280 and 50-281

Inspection Dates: November 2-6 and November 16-20, 2009

Inspection Procedures to be performed:

71121.01 Access Controls to Radiologically Significant Areas {8/1/08}

71121.02 ALARA Planning and Controls {11/9/07}

71122.02 Radioactive Material Processing and Transportation {11/9/07}

71151 Performance Indicator Verification {8/1/08}

The most recent inspection completed for each of the scheduled procedures is indicated as a date in braces { } adjacent to the procedure title above. Unless otherwise specified, we request that the documentation provided be from the date of the previous inspection to the present.

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 inspectors will select documents/areas from the list for on-site review. If any of the requested information is too burdensome to provide electronically or as hard copies, simply indicate that the requested material is available for onsite review by the inspectors.

If you have any questions, please call Ruben Hamilton at 404-562-4672. Thank you in advance for all your effort in putting together this material.

<u>Assistance Requested During On-Site Inspection</u>

- Identification of work activities during the inspection for inspector observations, including notification of pre-job briefings, notification of diving activities, audio/visual surveillance for remote job coverage.
- Discussions with appropriate individuals regarding access controls and ALARA planning
- Schedule of transportation shipments during the inspection and notification of opportunities for observations of shipment preparation/receipt; discussions with appropriate individuals regarding the transportation program.
- If procedures are provided via computer access, the inspectors will need appropriate computer login access. Otherwise please provide the RP Procedures on the disc.

Enclosure

General Information Request

- Telephone numbers of contacts.
- Plant and Radiation Protection organizational charts, including personnel involved in solid radwaste processing and transportation of radwaste/radioactive materials.
- Electronic copy of applicable chapters of UFSAR (e.g. radiation protection program, liquid and solid radioactive waste program, etc.).
- Outage schedule, including work activities to be conducted during the week(s) of the inspection.
- List of active radiation work permits, including those specific to outage activities, with their administrative limits, electronic dosimeter dose rate limit, and dose limit.
- List of radiation protection procedures.
- Corrective Action Program procedures.
- Audits and self-assessments performed since the last inspection that encompass the areas of (1)radiological access controls, (2) the ALARA program and implementation, (3) liquid and solid radwaste processing, and (4) transportation of radioactive material/radwaste.

71121.01 Access Controls to Radiologically Significant Areas

- Site and corporate procedures associated with the access control program. Procedures should include:
    - Radiological surveys, postings, and radiation control barricades
    - Security and control of high radiation sources/objects stored in pools
    - Radiation Work Permits
    - Radiological Job-Coverage
    - Controlling access to High Radiation Areas (HRAs), High Dose Rate High Radiation Areas (HDR-HRAs), and Very High Radiation Areas (VHRAs)
    - Key controls for all high radiation areas
    - Radioactive material control, including contamination and hot particles
    - Dosimetry monitoring (electronic dosimeters, multi-badging, etc.)
    - Calculations of internal exposures
- List of the 10 most exposure significant work areas within radiation areas, high radiation areas (<1R/hr), or airborne radioactivity areas in the plant. This may include areas with low dose rates but high collective dose. Identify any high radiation areas with significant dose gradients (factor of five or more), including underwater diving activities.
- RWPs for the top five dose rate areas or tasks.
- Plant/elevation maps of all HRAs, LHRAs, HDR-HRAs (>25 rem in one hour @ 30 cm), and VHRAs. Include areas with the potential to become a HRA during routine operations or outages.

- Internal dose assessments, including calculations, for any internal exposures greater that 50 mrem CEDE since the last inspection.
- List of PERs generated since the last inspection {August 1, 2008} related to access controls, including the following:
    - Access controls, including high radiation area radiological incidents
    - Radiological events caused by radiation worker errors
    - Radiological events caused by radiation protection technician errors

71121.02: ALARA Planning and Controls

- Site and corporate procedures associated with maintaining site dose ALARA, including those involving ALARA work activities. These procedures should include:
    - ALARA program implementation, including ALARA committee activities and ALARA planning, briefing, and reviews
    - Radiation work permit preparation and worker compliance
    - Processes used to estimate and track work activity specific exposures
    - Making changes to dose estimates during task performance
    - Work controls
    - Engineering controls
    - Exposure mitigation requirements
- ALARA documents related to current outage:
- List approximately 10-15 work activities planned during the inspection likely to result in the highest personnel collective exposures and those which present the greatest radiological risk to workers (e.g. work in HRAs, diving, potentially changing radiological conditions). Include the dose projections and ALARA package numbers.
    - ALARA planning packages for the five highest dose jobs being performed during the outage
    - Temporary shielding requests generated for the outage.
- ALARA documents related to previous outage:
    - Completed ALARA packages (including post-job reviews) for the five work activities that were completed during the last outage which had the greatest collective dose and/or presented significant radiological risk.
    - List of five activities (including ALARA package number) from the previous outage in which the work scope changed or was extended and alternative ALARA measures were taken to respond to the emergent conditions.
    - List of five activities from the previous outage in which the estimated work hours were significantly different than the actual hours expended.
    - List of five activities in which the estimated and actual hours expended were accurate.
- Documents related to the ALARA planning process:
    - Annual ALARA goals for 2007-2009, previous/current outage ALARA goals, and the methodology utilized to make the projections

  - Most recent annual ALARA report and most recent refueling outage report
  - ALARA Committee activity summaries (e.g. meeting minutes) for three months or 3 meetings after the last refueling outage and the three months or 3 meetings prior to the upcoming refueling outage

- Outline of the source term reduction strategy. Information should include:
  - Historic trends and current status of plant source term
  - Factors that affect the source term
  - Activities employed to reduce the source term
  - Specific sources identified for reduction actions
  - Source term reduction evaluation
  - Results achieved since last inspection of the ALARA program
- List of PERs generated since November 9, 2007, related to the ALARA program, including the following:
  - ALARA planning
  - Post-job review identified problems
  - Radiation worker practices
  - Occurrences where the collective exposure was greater than intended dose determined to be ALARA for the individual work activities

<u>71122.02 Radioactive Material Processing and Transportation</u>

- Site and corporate procedures/manuals 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

- Process Control Program (PCP).

- Most recent Annual Radioactive Effluents Release Report.

- Most recent radio-chemical sample analysis results (i.e., “10 CFR Part 61” analysis) for each of the radioactive waste streams (e.g., dry active waste (DAW), ion exchange resins, mechanical filters, and sludges and activated materials, etc.).

- List and documentation of any changes made to the radioactive waste processing systems (liquid and solid) and/or the PCP since November 9, 2007, and associated 10 CFR 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 radioactive material shipment preparation activities.
- Copy of the Radioactive Shipping Log for the last 12 months. (The inspector will select transportation shipping packages for review during the inspection.)
- List of PERs generated since November 9, 2007, involving radioactive waste and radioactive material/waste transportation.
- *Available for onsite review during the inspection:*
    - Site drawing(s) showing the location of all stored radioactive materials and all stored radioactive waste
    - Plant drawings sufficient to permit the inspector to walk-down the liquid and solid radioactive waste processing systems to verify current system configuration/operation agree with the descriptions contained in the 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 radioactive materials and radioactive waste as specified by 49 CFR 172

71151 Performance Indicator Verification

- Procedure(s) for identifying, notification, tracking, and correcting PI occurrences.
- List of all PERs since August 1, 2008 using keywords: HRA, LHRA, VHRA, unintended dose, unlocked door, offsite dose, ODCM, etc.
- Monthly PI reports since August 1, 2008 and copies of associated corrective action reports for Occupational Exposure Control Effectiveness and RETS/ODCM Radiological Effluent Occurrences.
- List of all dose rate alarms > 1 R/hr and all dose alarms since August 1, 2008.
- All final release point effluent monitor out-of-service dates since August 1, 2008.
- Most recent gaseous and liquid effluent release permits.

Inspector Contact Information:
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Enclosure