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

September 16, 2010

Mr. Christopher L. Burton
Vice President
Carolina Power & Light Company
Shearon Harris Nuclear Plant
P.O. Box 165, Mail Zone 1
New Hill, NC 27562-0165

SUBJECT: SHEARON HARRIS NUCLEAR POWER PLANT - NOTIFICATION OF INSPECTION AND REQUEST FOR INFORMATION

Dear Mr. Burton:

From October 25-29, 2010, the NRC will perform a baseline Occupational and Public Radiation Safety inspection at the Shearon Harris Nuclear Power Plant, (NRC Inspection Procedure 71124.01, Radiological Hazard Assessment and Exposure Controls, 71124.02, Occupational ALARA Planning and Controls, and additionally following on the fourth week after the outage by 71124.08, Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation). Experience has shown that this inspection is resource-intensive both for the NRC inspectors and your staff. In order to minimize the impact 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.

We have discussed the schedule for these inspection activities with your staff and understand that our regulatory contact for this inspection will be John Caves (919-362-3137) of your organization. Our inspection dates are subject to change based on your updated schedule of outage activities. If there are any questions about this inspection or the material requested, please contact the lead inspector Ruben Hamilton at (404) 997-4672 (ruben.hamilton@nrc.gov).

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).

Sincerely,

/RA: Ruben Hamilton for/

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

Docket Nos.: 50-400
License Nos.: NPF-63
Enclosure: Pre-Inspection Document Request

Inspector Contact Information:
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(cc w/encl cont'd – See page 4)

(cc w/encl)
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Letter to Christopher L. Burton from Brian R. Bonser dated September 16, 2010.

SUBJECT: SHEARON HARRIS NUCLEAR POWER PLANT - NOTIFICATION OF INSPECTION AND REQUEST FOR INFORMATION

Distribution w/encl:
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Brian R Bonser, Chief
Plant Support Branch 1
Division of Reactor Safety

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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							
NAME	RHamilton	BBonser					
DATE	9/ /2010	9/ /2010	9/ /2010	9/ /2010	9/ /2010	9/ /2010	9/ /2010
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\HARRIS\HARRIS DOCUMENT REQUEST OCT 2010.DOCX

Pre-Inspection Document Request

Occupational and Public Radiation Safety Cornerstones

Licensee: Shearon Harris Nuclear Power Plant
Docket Numbers: 50-400

Inspection Dates: October 25-29, 2010
December 6-10, 2010

Procedure: October 25-29, 2010
71124.01, Radiological Hazard Assessment and Exposure Controls
71124.02, Occupational ALARA Planning and Controls

December 6-10, 2010
71124.08, Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation

Documentation is requested from January 2009 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 inspector will select documents/areas from the list for on-site review.

If you have any questions, please call Ruben Hamilton at 404-997-4672. Thank you in advance for all your effort in putting together this material.

Assistance Requested During On-Site Inspection

- Identification of work activities during the inspection for inspector observations, including notification of pre-job briefings.
- Health physics assistance in plant walk-downs assessing radiological hazards and exposure controls, e.g. verifying the posting and locking of entrances to locked-high radiation areas and very high radiation areas, spent fuel pool controls, and radioactive material storage areas.

General Information Request

1. Telephone numbers of contacts
2. Plant, Radiation Protection, and Chemistry organizational charts
3. List of radiation protection procedures
4. Most recent DAW 10 CFR Part 61 analytical results.
5. Corrective Action Program procedures
6. Audits and self-assessments performed since January 2009 that encompass the areas of (1) radiation protection, (2) control of radiologically significant areas, and (3) radioactive material control
7. Procedure(s) for identifying, notification, tracking, and correcting PI occurrences.

Enclosure

8. List of all Performance Indicators (PIs) and copies of associated corrective action reports for Occupational Exposure Control Effectiveness and RETS/ODCM Radiological Effluent Occurrences.
9. Audits and self-assessments performed since the last inspection that encompass the areas of (1) access controls, (2) the ALARA program and implementation, (3) liquid and solid radwaste processing, and (4) transportation of radioactive material/radwaste.

Radiological Hazard Assessment and Exposure Controls [71124.01] and [TI2515/179]

(The requirements contained in TI 2515/179 are accomplished while performing 71124.01.)

1. Site and corporate procedures associated with assessing and controlling radiological hazards. Procedures should include:
   - Radiological surveys, postings, and radiation control barricades
   - Security and control of high radiation sources/objects, including those 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), including key controls
   - Radioactive material control, including contamination, hot particles, and survey/release of material for unrestricted use
   - Dosimetry monitoring (electronic dosimeters, multi-badging, whole body counting/internal dose assessment, etc.)
2. Description of any changes to plant operations that may result in a new radiological hazard for workers or members of the public.
3. List of the most exposure significant radiologically risk-significant work activities planned for the outage, including at least five activities scheduled during the week of the inspection.
4. List or map of HRAs, LHRAs, and VHRAs. Include areas with the potential to become a HRA during routine operations or outages.
5. RWPs for the 5 highest dose rate areas or outage tasks; RWPs for airborne areas.
6. Inventory of nonexempt licensed materials, including storage location.
7. List of unusual dosimetry occurrences, including electronic dosimeter malfunctions/alarms.
8. List of corrective action reports generated since January 2009 related to radiological hazard assessment and control, including the following:
   - Exposure controls, including high radiation area radiological incidents
   - Radiation monitoring (e.g. surveys, contamination, airborne)
   - Radiological events caused by radiation worker errors
   - Radiological events caused by radiation protection technician errors

Occupational ALARA Planning and Controls [71124.02]

1. Site and corporate procedures associated with maintaining site dose ALARA, including those involving ALARA work activities. These procedures should include:
   - ALARA program implementation
   - ALARA committee activities
   - ALARA planning, briefing, and reviews
   - Radiation work permit preparation

- Radiation work permit compliance (by workers)
- Making changes to dose estimates during task performance
- Work controls
- Engineering controls
- Exposure mitigation requirements

2. Most recent annual ALARA report and most recent refueling outage report.
3. Annual ALARA goals for 2008, 2009 and 2010 and the methodology utilized to make the projections.
4. Site collective dose totals and 3-year averages for the last three years.
5. Site specific trends in collective exposure and source-term measurements.
6. List of the 5-10 work activities planned during the inspection likely to result in the highest personnel collective exposures. Include the dose projections.
7. List of the jobs-in-progress during the inspection with work activities which present the greatest radiological risk to workers (e.g. work in HRAs, diving, potentially changing radiological conditions).
8. Temporary shielding requests generated for the outage.
9. List of six techniques integrated into work activities that result in significant collective dose reductions during outages and/or routine operations.
10. 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.
11. Licensee Event Reports, Special Reports, audits, and self assessments related to the ALARA program performed since the last inspection, and any associated corrective action reports.
12. List of corrective action reports related to the ALARA program and radiation worker practices since the last inspection. Include occurrences where the collective exposure was greater than intended dose determined to be ALARA for the individual work activities.
13. Outline of the interfaces between operations, radiation protection, maintenance, maintenance planning, scheduling, and engineering groups with respect to the ALARA program and ALARA planning.
14. Outline of the source term reduction strategy. Specific 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
    - Source term reduction evaluation
    - Results achieved since last inspection
15. 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.
16. List of five activities in the past in which the estimated work hours were significantly different than the actual hours expended. List five activities in which the estimated and actual hours expended were accurate.
17. List of five events where the work scope changed or was extended and alternative ALARA measures were taken to respond to the unexpected conditions.
18. List of activities since that last inspection that were reviewed for ALARA problems and actions taken to prevent recurrence.

19. Identify the system(s) utilized to track and trend collective dose, providing sufficient detail to assess the ability of the system to detect and control work activity specific trends.
20. Records of personnel monitored for radiation exposure that show the total TEDE to-date for each person. Include the worker's dose limit if available.
21. Records for declared pregnant workers in the last 12 months, listing their monthly radiation exposure during the term or year-to-date.

RADIOACTIVE SOLID WASTE PROCESSING AND RADIOACTIVE MATERIAL HANDLING, STORAGE, AND TRANSPORTATION [71124.08]

1. 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).
2. Most recent Annual Radioactive Effluents Release Report.
3. 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.).
4. List and documentation of any changes made to the radioactive waste processing systems (liquid and solid) and/or the PCP since the last inspection and associated10 CFR 50.59 documentation, as appropriate.
5. Copies of applicable transport cask Certificate of Compliance for the last three transport cask shipments.
6. Training and qualification records for personnel responsible for radioactive waste processing and radioactive material shipment preparation activities.
7. Copy of the Radioactive Shipping Log for the last 12 months. (The inspector will select transportation shipping packages for review during the inspection.)
8. List of corrective action reports generated since the last inspection involving radioactive waste and radioactive material/waste transportation.
9. 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.