



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

October 6, 2011

Mr. William Jefferson, Jr.
Vice President
Carolina Power & Light Company
Shearon Harris Nuclear Plant
5413 Shearon Harris Road
New Hill, NC 27562

SUBJECT: RADIATION PROTECTION INSPECTION – SHEARON HARRIS NUCLEAR PLANT

Dear Mr. Jefferson:

On December 5 - 9, 2011, the NRC will perform a baseline Radiation Safety Inspection at Shearon Harris Nuclear Plant, (NRC Inspection Procedures 71124.01, 71124.03, and 71124.04). 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 activity. The NRC requests that these documents be provided to the inspectors no later than November 14, 2011.

We have discussed the schedule for these inspection activities with your staff and understand that our regulatory contact for this inspection will be Michael Wallace of your organization. If there are any questions about this inspection or the material requested, please contact the lead inspector, Wade Loo at (404) 997-4727 or the Plant Support Branch 1 Chief, Brian Bonser at (404) 997-4653.

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>.

Sincerely,

/RA/

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

Docket No.: 50-400
License No.: NPF-63

Enclosure:
Document Request List

cc: (See page 2)

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Distribution w/encl:
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RIDSNNRRDIRS
PUBLIC
RidsNrrPMShearonHarris Resource

PUBLICLY AVAILABLE NON-PUBLICLY AVAILABLE SENSITIVE NON-SENSITIVE
ADAMS: X Yes ACCESSION NUMBER: **ML112790545** X SUNSI REVIEW COMPLETE X FORM 665 ATTACHED

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|--------------|---------------|---------------|--|--|--|--|--|
| OFFICE | RII: DRS/PSB1 | RII: DRS/PSB1 | | | | | |
| SIGNATURE | RA/WL | RA/BB | | | | | |
| NAME | W.LOO | B. BONSER | | | | | |
| DATE | 10/05/2011 | 10/06/2011 | | | | | |
| E-MAIL COPY? | YES NO | YES NO | | | | | |

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Shearon Harris Nuclear Power Plant
U.S. NRC
5421 Shearon Harris Rd
New Hill, NC 27562-9998

Document Request List

| | | |
|------------------------|----------|--|
| Inspection Dates: | | December 5 - 9, 2011 |
| Inspection Procedures: | 71124.01 | Radiological Hazard Assessment and Exposure Controls |
| | 71124.03 | In-Plant Airborne Radioactivity Control and Mitigation |
| | 71124.04 | Occupational Dose Assessment |

Note: 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). *Note that the inspectors cannot accept data provided on USB or “flash” drives due to NRC IT security policies.* Please organize the information as it is arranged below to the extent possible. Experience has shown that a poorly organized CD leads to a less efficient inspection and places additional burden on licensee staff. If there are questions regarding the documents requested, please do not hesitate to contact the lead inspector.

Assistance Requested During On-Site Inspection

- 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.
- Health physics assistance in plant walk-downs assessing access controls, e.g. verifying the posting and locking of entrances to HDR-HRA and VHRA, and SFP controls.
- Health physics assistance in plant walk-downs/job coverage of ongoing activities to assess access controls.
- Discussions with appropriate individuals regarding access controls.

General Information Request

- Plant Management, Radiation Protection, and Chemistry organizational charts w/ contact numbers.
- Electronic copy of relevant UFSAR chapters (e.g., access controls, and radiation protection program).
- Outage schedule, including work activities to be conducted during the week(s) of the inspection.
- Corrective Action Program procedures.

71124.01 - Radiological Hazard Assessment and Exposure Controls

- List of outage RWPs with their administrative limits, electronic dosimeter dose rate limit, and dose limit.
- Plant maps of all Locked HRAs and VHRAs.
- Procedures related to HP controls, e.g. (Posting, labeling, surveys, RWPs, contamination control, key control, control of divers, special controls during fuel offload, hot spots, etc.).

- Procedures related to release of personnel and materials, e.g. (release surveys, decontamination, guidance for alarm follow up, etc.).
- List of the 10 most exposure significant work areas within radiation areas, HRAs (<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.
- List of Nationally Tracked Sources currently stored onsite and associated documents that show source reconciliation with the NSTS database.
- List of all non-fuel items stored in spent fuel pool.
- Most recent self-assessment or audit covering HP controls.
- List of CRs related to HP controls where the cause was listed as human performance (radworker error) or human performance (HP technician error) issued since December 2010. This should be a list of corrective action documents containing a CR number and brief description, not full CRs.

71124.03 - In-Plant Airborne Radioactivity Control and Mitigation

- Site and corporate procedures/manuals associated with airborne radiation monitoring instrumentation and respiratory protection. Procedures/manuals should include:
 - Operation, calibration, and maintenance of air sampling instrumentation, including set-point determination (e.g., low-vols, high vols, goosenecks, AMS 4s, etc.).
 - Calibration and maintenance of portable instruments.
 - Actions to be taken when air sampling instrumentation is found to be significantly out of tolerance/calibration.
 - Issuance and use of respiratory protective equipment (emphasis on SCBA and air-supplied equipment).
 - Training, including fit-testing, for use of SCBA and supplied-air systems.
 - SCBA maintenance activities, including vital components (i.e. regulators).
 - Determination/verification of Grade D air for SCBA.
- Two most recent calibrations for the following CAM equipment:
 - Control Room Ventilation.
 - Spent Fuel Pool.
 - Radioactive Waste Processing.
- Records of certification of air quality for equipment used to provide breathing air for air-supplied respirators and SCBA bottles since the last inspection.
- List of corrective action reports generated since January 2010, involving radiation monitoring and protective equipment deficiencies, including the following:
 - Continuous air monitors.
 - Respiratory protection equipment and program implementation.
- *Available for onsite review by inspector during inspection:*
 - Inventory, inspection, and maintenance records for SCBA equipment.
 - Training records, including fit-testing, for SCBA-qualified individuals.
 - Training records/certification for individuals qualified to perform maintenance on vital components (e.g. regulators) on SCBA.

71124.04 - Occupational Dose Assessment

- Site and corporate procedures associated with dosimetry operations. Procedures should include:
 - Issuance/use of external dosimetry (routine, multibadging, extremity, neutron, declared pregnant workers, assigning dose of record, etc.).
 - For non-NVLAP accredited passive dosimeters, procedures for calibration, application of calibration factors, zeroing, etc.
 - Calibration and use of electronic dosimeters, including, if applicable, use of a correction factor to address response of ED with respect to TLD.
 - Assessment of internal dose (operation of whole body counter, assignment of dose based on DAC-hours, urinalysis, etc.).
 - Evaluation of, and dose assessment for, radiological incidents (e.g. distributed contamination, hot particles, loss of dosimetry, etc.).
- Most recent NVLAP accreditation report.
- List of the types of dosimetry used, e.g. TLD, OSL, bubble dosimeter, electronic dosimeter, by manufacturer and, if applicable, model number.
- List of any internal dose assessments exceeding 10 mrem CEDE and any skin dose assessments performed since January 2010.
- List of CAP condition reports generated since January 2010, related to internal and external dosimetry, dose assessment, etc.

Lead Inspector
Wade Loo
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