



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION II
SAM NUNN ATLANTA FEDERAL CENTER
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ATLANTA, GEORGIA 30303-8931

February 23, 2006

Carolina Power & Light Company
ATTN: Mr. C. J. Gannon, Jr.
Vice President - Harris Plant
Shearon Harris Nuclear Power Plant
P. O. Box 165, Mail Code: Zone 1
New Hill, NC 27562-0165

SUBJECT: SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1 - NOTIFICATION OF
INSPECTION AND REQUEST FOR INFORMATION

Dear Mr. Gannon:

On or about April 17-28, 2006, the NRC will perform the baseline inservice inspection (ISI) at the Harris Nuclear Power Plant, Unit 1 (NRC Inspection Procedure 71111.08). We will also review your activities associated with the examination of the upper reactor pressure vessel head and penetration nozzles in accordance with NRC Temporary Instruction (TI) 2515/150. Experience has shown that this inspection is resource intensive both for the NRC inspector 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. These documents have been divided into two groups. The first group identifies information to be provided prior to the inspection to ensure that the inspector is adequately prepared. The second group identifies the information the inspector will need upon arrival at the site. 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 Mike Wallace, 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 Steven J. Vias at (404) 562-4505 (sjv@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 By H. Christensen For/
Mark S. Lesser, Chief
Engineering Branch 3
Division of Reactor Safety

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

Enclosure: See next page

Enclosure: INSERVICE INSPECTION DOCUMENT REQUEST

cc w/encl:

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| OFFICE | RII:DRS | RII:DRS | RII:DRS | RII:DRS | RII:DRP | |
| SIGNATURE | /RA/ | /RA S. Vias For/ | /RA/ | /RA By H. Christensen For/ | /RA/ | |
| NAME | SVias | EMichel | LLake | MLesser | PFredrickson | |
| DATE | 2/21/6 | 2/21/06 | 2/21/06 | 2/21/06 | | |
| E-MAIL COPY? | YES NO | YES NO | YES NO | YES NO | YES NO | YES NO |

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DOCUMENT NAME: E:\Filenet\ML060550184.wpd

INSERVICE INSPECTION DOCUMENT REQUEST

Inspection Dates: April 17-28, 2006

Inspection Procedures: IP 7111108 "Inservice Inspection (ISI) Activities"

Inspectors: Steven J. Vias, Senior Reactor Inspector (Lead Inspector)
Eric Michel, Reactor Inspector (week 2)
Louis Lake, Reactor Inspector (week 1)
J. Rivera-Ortiz, Reactor Inspector (TI 2515/150, week 1)
B. Crowley, Senior Reactor Inspector (TI 2515/150, week 1)

A. Information Requested for the In-Office Preparation Week

The following information should be sent to the Region II office in hard copy (or electronic format CD - preferred), in care of Steven J. Vias by March 24, 2006, to facilitate the selection of specific items that will be reviewed during the onsite inspection week. The inspector will select specific items from the information requested below and then request from your staff additional documents needed during the onsite inspection week. We ask that the specific items selected from the lists be available and ready for review on the first day of inspection. Please provide requested documentation electronically if possible. If requested documents are large and only hard copy formats are available, please inform the inspector(s), and provide subject documentation during the first day of the onsite inspection. If you have any questions regarding this information request, please call the inspector as soon as possible.

In accordance with NRC inspection procedure 71111.08, the inspector(s) would like to conduct an independent boric acid walk down of the Reactor Building early in the inspection week. Please have knowledgeable BACCP staff available to accompany the inspector during the walk down.

A.1 ISI / Welding Programs and Schedule Information

a) A detailed schedule of:

- i) Nondestructive examinations (NDE) planned for Class 1 & 2 systems and containment, performed as part of your ASME Section XI, Risk Informed (if applicable), and augmented ISI Programs during the upcoming outage.

Provide a status summary of the NDE inspection activities vs. the required inspection period percentages for this Interval by category per ASME Section XI, IW-2400 (*Do not provide separately if other documentation requested contains this information*)

- ii) Reactor vessel head (RPVH) examinations planned for the upcoming outage.

Enclosure

- iii) Examinations planned for Alloy 82/182/600 components that are not included in the Section XI scope. (If applicable)
 - iv) Examinations performed as part of your Boric Acid Corrosion Control Program (Mode 3 walkdowns, bolted connection walkdowns, etc.)
 - v) Welding activities that are scheduled to be completed during the upcoming outage (ASME Class 1, 2, or 3 structures systems or components (SSCs))
- b) A copy of ASME Section XI, Code Relief Requests and associated NRC Safety Evaluations applicable to the examinations identified above. Additionally, please provide documentation associated with ASME Code Cases that are being incorporated in work activities being performed this outage.
 - c) A list of NDE reports (ultrasonic, radiography, magnetic particle, dye penetrant, visual VT-1, VT-2, and VT-3) which have identified recordable indications (geometric or flaw) on Code Class 1 & 2 systems since the beginning of the last refueling outage. Also, include in the list the NDE reports with recorded indications in the RPVH penetration nozzles which have been accepted for continued service.
 - d) A list with a brief description of the welds in Code Class 1 and 2 systems which have been fabricated due to component repair/replacement activities since the beginning of the last refueling outage, or are planned to be fabricated this refueling outage. Please identify the system, weld number, and reference applicable documentation.
 - e) If reactor vessel weld examinations required by the ASME Code are scheduled to occur during the upcoming outage, provide a detailed description of the welds to be examined, and the extent of the planned examination. Please also provide reference numbers for applicable procedures that will be used to conduct these examinations.
 - f) Copy of any 10 CFR Part 21 reports applicable to your SSCs within the scope of Section XI of the ASME Code that have been identified since the beginning of the last refueling outage.
 - g) A list of any temporary non-code repairs in service (e.g., pinhole leaks).
 - h) Please provide copies of the most recent self assessments for the ISI, Welding, and Alloy 600 Programs.

A.2 Reactor Pressure Vessel Head (RPVH)

- a) Provide the detailed scope of the planned NDEs of the reactor vessel head which identifies the types of NDE methods to be used on each specific part of the vessel head to fulfill NRC commitments made in response to NRC Bulletin

2002-02 and NRC Order EA-03-009. Also, include examination scope expansion criteria and planned expansion sample sizes if relevant indications are identified.

- b) Provide a list of the standards and/or requirements will be used to evaluate indications identified during NDEs of the reactor vessel head (e.g. the specific industry or procedural standards which will be used to evaluate potential leakage indications, including any plans to use chemical testing of leakage related deposits with applicable acceptance standards/criteria.

A.3 Boric Acid Corrosion Control Program (BACCP)

- a) Copy of the procedures that govern the scope, equipment and implementation of the inspections required to identify boric acid leakage and the procedures for boric acid leakage/corrosion evaluation.
- b) Please provide a list of leaks and the code class of the components that have been identified since the last refueling outage and associated corrective action documentation. If during the last cycle, the Unit was shutdown, please provide documentation of containment walk-down inspections performed as part of the BACCP.
- c) Please provide a copy of the most recent self-assessment performed for the BACCP.

A.4 Information related to Steam Generator (SG) inspections

- a) A detailed schedule of:
 - i) SG tube inspection and repair activities for the upcoming outage. (If occurring)
 - ii) SG secondary side inspection activities for the upcoming outage. (If occurring)
- b) Please provide a copy of your SG ISI Inspection Program and Plan. Please include a copy of the Operational Assessment from last outage, and a copy of the following documents as they become available:
 - i) Degradation Assessment
 - ii) Condition Monitoring Assessment
- c) If you are planning on modifying your Technical Specifications such that they are consistent with TSTF-449, please provide copies of your correspondence with the NRC regarding deviations from the STS.
- d) Copy of SG history documentation given to vendors performing eddy current (ET) testing of the SGs during the upcoming outage.

- e) Copy of SG Eddy Current Data Analyst Guidelines, and Site Validated Eddy Current Technique. Additionally, please provide a copy of EPRI Appendix H Eddy Current Technique Qualification Records.
- f) Identify and quantify any SG tube leakage experienced during the previous operating cycle. Also provide documentation identifying which SG was leaking and corrective actions completed or planned for this condition. (If applicable)
- g) Provide past history of the condition and issues pertaining to the secondary side of the steam generators (including items such as loose parts, fouling, top of tube sheet condition, crud removal amounts, etc.)
- h) Please provide copies of your most recent self assessments of the SG monitoring, loose parts monitoring, and secondary side water chemistry control programs.
- i) Please also indicate where the primary and secondary analysis is scheduled to take place.

A.5 Additional information related to all ISI activities

- a) A list with a brief description of ISI and SG related issues (e.g., condition reports) entered into your corrective action program since the beginning of the last refueling outage (for Units 1 and 2). For example, a list based upon data base searches using key words related to piping or SG tube degradation such as: ISI, ASME Code, Section XI, NDE, cracks, wear, thinning, leakage, rust, corrosion, boric acid or errors in piping/SG tube examinations.
- b) Please provide names and phone numbers for the following program leads:

 ISI contacts (Examination, planning)
 Containment Exams
 Snubbers and Supports
 Repair and Replacement program manager
 Licensing Contact
 Site Welding Engineer
 Boric Acid Corrosion Control Program
 SG Inspection Activities (site lead, and vendor contact)

B. Information to be provided on-site to the inspector at the entrance meeting (April 17, 2006):

B.1 ISI / Welding Programs and Schedule Information

- a) Updated schedules for ISI / NDE activities, including SG ISI, planned welding activities, and schedule showing contingency repair plans, if available.

- b) For ASME Class 1 and 2 welds selected by the inspector from the lists provided from part A of this enclosure, please provide copies of the following documentation for each subject weld:
- i) The weld data sheet (traveler)
 - ii) Weld configuration and system location
 - iii) Applicable Code Edition and Addenda for weldment
 - iv) Applicable Code Edition and Addenda for welding procedures
 - v) Applicable weld procedures (WPS) used to fabricate the welds
 - vi) Copies of procedure qualification records (PQRs) supporting the WPS from B.1.b.v
 - vii) Copies of mechanical test reports identified in the PQRs above
 - viii) Copies of the nonconformance reports for the selected welds (If Applicable)
 - ix) Radiographs of the selected welds and access to equipment to allow viewing radiographs (If RT was performed)
 - x) Copies of the preservice examination records for the selected welds.
 - xi) Copies of welder performance qualifications records applicable to WPS, including documentation that welder maintained proficiency in the applicable welding processes specified in the WPS (At least six months prior to date subject work)
 - xii) Copies of Inspector Certifications (VT, PT, UT, RT) *As applicable*
- c) For the ISI related corrective action issues selected by the inspector from part A of this enclosure, provide a copy of the corrective actions and supporting documentation.
- d) For the nondestructive examination reports with recordable indications on Code Class 1 & 2 systems selected by the inspector from section A above, provide a copy of the examination records, examiner qualification records, and associated corrective action documents.
- e) A copy of (or ready access to) most current revision of the ISI Program Manual and Plan for this Interval.
- f) Copy of the NDE procedures used to perform the examinations selected by the inspector from the activities identified in section A of this enclosure (including calibration and flaw characterization/sizing procedures). For ultrasonic examination procedures qualified in accordance with ASME Code, Section XI, Appendix VIII, provide documentation supporting the procedure qualification (e.g., the EPRI performance demonstration qualification summary sheets). Also, include documentation of the specific equipment to be used (e.g., ultrasonic unit, cables, and transducers including serial numbers).

B.2 Reactor Pressure Vessel Head (RPVH)

- a) Provide a list which identifies the NDE personnel who will perform inspections of the RPVH. Also, provide the qualification and certification records for these personnel.

- b) Provide a drawing showing the RPVH and CRDM nozzle configurations. Please also provide a fabrication drawing for the nozzle attachment welds.
- c) Provide a copy of the procedure that will be used to identify potential boric acid leaks from pressure-retaining components above the RPVH. If no explicit procedure exists which govern this activity, provide a description of the process to be followed including personnel responsibilities and expectations.
- d) Provide a copy of the procedures that will be used to conduct all planned NDE activities for the upcoming refueling outage.
- e) Provide a copy of the NDE reports for the last RPVH examination completed in response to NRC Order EA-03-009.
- f) If applicable, provide documentation describing any repaired vessel head penetration nozzles.
- g) Provide a copy of the procedure governing the performance of leakage assessment into the interference fit zone of the vessel head nozzles and acceptance criteria.
- h) Provide a copy of the susceptibility ranking calculation for the vessel head based on operating time and temperature. Also provide the plant specific records used to determine the inputs for this calculation.
- i) Provide a copy of the vessel head nozzle repair procedures to be used. Also include any documented NRC reviews, evaluation, and approval of this repair process.
- j) Copy of document describing the flaw evaluation guidelines which will be followed for any cracking identified in the reactor vessel head nozzles or J-welds.

B.3 Boric Acid Corrosion Control Program (BACCP)

- a) Please provide boric acid walk down inspection results, an updated list of boric acid leaks identified so far this outage, associated corrective action documentation, and overall status of planned boric acid inspections.
- b) Please provide any engineering evaluations completed for boric acid leaks identified since the end of the last refueling outage. Please include a status of corrective actions to repair and/or clean these boric acid leaks. Please specifically indicate which known leaks, if any, have remained in service or will remain in service as active leaks.

B.4 Information related to Steam Generator (SG) inspections

- a) Copy of the Technique Specification Sheets (ETSS), and associated justification for any revisions.

- b) Copy of the guidance to be followed if a loose part or foreign material is identified in the SGs.
- c) Please provide a copy of the ET procedures used to perform the SG ISI (specifically calibration and flaw characterization/sizing procedures, etc.). Also, include documentation for the specific equipment to be used.
- d) Please provide copies of your responses to NRC and industry operating experience communications such as Generic Letters, Information Notices, etc. (As applicable to SG inspections) **Do not provide these documents separately if already included in other information requested such as the degradation assessment.*
- e) List of corrective action documents generated by the vendor and/or site with respect to SG inspection activities.

B.5 Codes and Standards

- a) Ready access to: (i.e., copies provided to the inspector to use for the duration of the inspection at the on-site inspection location, or room number and location where available)
 - i) Applicable editions of the ASME Code (Sections V, IX and XI) for the inservice inspection program and the repair/replacement program.
 - ii) EPRI and industry standards referenced in the procedures used to perform the SG tube eddy current examination.

Inspector(s) Contact Information:

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