



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

January 20, 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 – NRC OPERATOR LICENSE
EXAMINATION REPORT 05000400/2009302

Dear Mr. Burton:

During the period November 30-December 3, 2009, the Nuclear Regulatory Commission (NRC) administered operating tests to employees of your company who had applied for licenses to operate the Shearon Harris Nuclear Power Plant. At the conclusion of the tests, the examiners discussed preliminary findings related to the operating tests with those members of your staff identified in the enclosed report. The written examination was administered by your staff on December 16, 2009.

Four Reactor Operator (RO) and three Senior Reactor Operator (SRO) applicants passed both the operating test and written examination. One RO applicant failed the written examination. There were no post-administration comments concerning the operating and written examinations. A Simulator Fidelity Report is included in this report as Enclosure 2.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC's document system (ADAMS). ADAMS is accessible from the NRC Website at <http://www.nrc.gov/reading-rm.adams.html> (the Public Electronic Reading Room).

If you have any questions concerning this letter, please contact me at (404) 562-4550.

Sincerely,

/RA/
Malcolm Widmann, Chief
Operations Branch
Division of Reactor Safety

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

Enclosures: 1. Report Details
2. Simulator Fidelity Report

cc: w/encl: (See Page 2)

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X PUBLICLY AVAILABLE NON-PUBLICLY AVAILABLE SENSITIVE X NON-SENSITIVE
ADAMS: Yes ACCESSION NUMBER: _____ X SUNSI REVIEW COMPLETE **MTW**

OFFICE	RII:DRS	RII:DRS	RII:DRS	RII:DRS			
SIGNATURE	GWL /RA/	MAB /RA/	MKM /RA/	MTW /RA/			
NAME	GLaska	MBates	MMeeks	MWidmann			
DATE	01/19/2010	01/20/2010	01/20/2010	01/20/2010			
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY DOCUMENT NAME: O:\HARRIS EXAMINATIONS\INITIAL EXAM 2009-302\CORRESPONDENCE\FINAL HARRIS 2009-302 EXAM REPORT (REV1).DOC

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Electronic Mail Distribution

CP&L

3

Letter to Christopher L. Burton from Malcolm T. Widmann dated January 20, 2010

SUBJECT: SHEARON HARRIS NUCLEAR POWER PLANT – NRC OPERATOR LICENSE
EXAMINATION REPORT 05000400/2009302

Distribution w/encl:

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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.: 05000400

License No.: NPF-63

Report No.: 05000400/2009302

Licensee: Carolina Power & Light Company (CP&L)

Facility: Shearon Harris Nuclear Power Plant

Location: 5413 Shearon Harris Road
New Hill, NC 27562

Dates: Operating Test – November 30 – December 3, 2009
Written Examination – December 16, 2009

Examiners: G. Laska, Chief Examiner, Sr. Operations Examiner
M. Bates, Senior Operations Engineer
M. Meeks, Operations Engineer

Approved by: M. Widmann, Chief
Operations Branch
Division of Reactor Safety

SUMMARY OF FINDINGS

ER 05000400/2009302; November 30-December 3, 2009 & December 16, 2009; Shearon Harris Nuclear Power Plant; Operator License Examinations.

Nuclear Regulatory Commission (NRC) examiners conducted an initial examination in accordance with the guidelines in Revision 9, Supplement 1, of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors." This examination implemented the operator licensing requirements identified in 10 CFR §55.41, §55.43, and §55.45, as applicable.

The NRC developed the written examination outline. Members of the Shearon Harris Nuclear Power Plant staff developed both the operating tests and the written examination.

The NRC administered the operating tests during the period November 30-December 3, 2009. Members of the Shearon Harris Nuclear Power Plant training staff administered the written examination on December 16, 2009. Four Reactor Operator (RO) and three Senior Reactor Operator (SRO) applicants passed both the operating test and written examination. One Reactor Operator failed the written examination. Seven applicants were issued licenses commensurate with the level of examination administered.

There were no post-examination comments.

No findings of significance were identified.

REPORT DETAILS

4. OTHER ACTIVITIES

4OA5 Operator Licensing Examinations

a. Inspection Scope

The NRC developed the written examination outline. Members of the Shearon Harris Nuclear Power Plant staff developed both the operating tests and the written examination. All examination material was developed in accordance with the guidelines contained in Revision 9, Supplement 1, of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors." The NRC examination team reviewed the proposed examination. Examination changes agreed upon between the NRC and the licensee were made per NUREG-1021 and incorporated into the final version of the examination materials.

The NRC reviewed the licensee's examination security measures while preparing and administering the examinations in order to ensure compliance with 10 CFR §55.49, "Integrity of examinations and tests."

The NRC examiners evaluated five Reactor Operator (RO) and three Senior Reactor Operator (SRO) applicants using the guidelines contained in NUREG-1021. The examiners administered the operating tests during the period November 30 – December 03, 2009. Members of the Shearon Harris Nuclear Power Plant training staff administered the written examination on December 16, 2009. Evaluations of applicants and reviews of associated documentation were performed to determine if the applicants, who applied for licenses to operate the Shearon Harris Nuclear Power Plant, met the requirements specified in 10 CFR Part 55, "Operators' Licenses."

b. Findings

No findings of significance were identified. The NRC determined, using NUREG-1021 that the licensee's operating test and written examination submittals were both within the range of acceptability expected for a proposed examination.

Four Reactor Operator (RO) applicants and three Senior Reactor Operator (SRO) applicants passed both the written and operating examinations. One RO applicant failed the written examination. Seven applicants were issued licenses commensurate with the level of examination administered.

Copies of all individual examination reports were sent to the facility Training Manager for evaluation of weaknesses and determination of appropriate remedial training.

The licensee submitted no post-examination comments concerning the operating test and no comments concerning the written examination. A copy of the final written examination and answer key, with all changes incorporated may be accessed in the ADAMS system (ADAMS Accession Number(s) ML100060485 and ML100060490).

4OA6 Meetings, Including Exit

Exit Meeting Summary

On December 3, 2009 the NRC examination team discussed generic issues associated with the operating test with Mr. Kelvin Henderson, Shearon Harris Plant Manager, and members of the Shearon Harris Nuclear Power Plant staff. The examiners asked the licensee if any of the examination material was proprietary. No proprietary information was identified.

KEY POINTS OF CONTACT

Licensee personnel

K. Bailey, Supervisor – Operations Continuing Training
 R. Bright, Simulator Support
 C. Burton, Vice President Harris Plant
 J. Carney, Senior Operations Instructor
 D. Cortlett, Supervisor – Licensing/Regulatory Programs
 T. Craig, Senior Operations Instructor
 J. Dills, Manager – Operations
 J. Doorhy Jr., Licensing/Regulatory Programs
 W. Gunter, Manager – Shift Operations
 K. Henderson, General Manager Harris Plant
 G. Kilpatrick, Manager – Training
 A. Lucky, Senior Nuclear Operations Training Instructor
 M. McDade, Simulator Support
 J. O’Keefe, Nuclear Shift Manager - Operations
 S. Scott, Operations Initial License Training Supervisor
 M. Spellman, Control Room Supervisor
 T. Toler, Superintendent – Operations Training Manager
 M. Wallace, Senior Specialist - Licensing
 M. Weber, Superintendent – Operations Support

NRC personnel

J. Austin, Senior Resident Inspector

SIMULATOR FIDELITY REPORT

Facility Licensee: Shearon Harris Nuclear Power Plant

Facility Docket No.: 05000400

Operating Test Administered: November 30-December 3, 2009

This form is to be used only to report observations. These observations do not constitute audit or inspection findings and, without further verification and review in accordance with Inspection Procedure 71111.11 are not indicative of noncompliance with 10 CFR 55.46. No licensee action is required in response to these observations.

While conducting the simulator portion of the operating test, examiners observed the following:

<u>Item</u>	<u>Description</u>
Switchyard Voltage	During a malfunction involving Main Generator voltage malfunction Generator Mega-vars (MVARs) increased from approximately 75 MVARs out to 500 MVARs out without any change to switchyard voltage. Simulator Service Request (SSR) 09-0450
Containment Sump Leak Rate Annunciator	During the validation of a scenario, the containment sump leak rate annunciator alarmed without any leakage into containment. SSR 09-448
Steam Generator Narrow Range Level Indication	During the validation of a scenario, steam generator narrow range level indicated 10% in a faulted steam generator with corresponding wide range level less than 10%. SSR 09-0446
RCS Letdown Flow	During an exam scenario, the simulator indicated a constant 38 gpm letdown flow rate for greater than 10 minutes after letdown was isolated. This caused the crew to question the indication, and prepare to transition to another procedure. SSR 09-0486
Reactivity/RCS Temperature	During an exam scenario, applicants were given the following initial conditions: the plant had tripped 21 hours ago, the reactor was taken critical 9 hours ago, and the unit was currently holding constant at 90% power. The applicants were also given a reactivity plan that stated between 200-300 gallons of dilution would be required to raise power from 90% to 100%. RCS Tave was greater than Tref by 0.7 °F at the beginning of the shift, and on one crew the Tave to Tref mismatch increased to ~ 1.0 °F before the crew took any action to raise power. When the applicants began to raise power, Tave continued to remain greater than Tref without any dilution or rod motion. Applicants questioned this reactivity response, and one crew (erroneously) entered an Abnormal Operating Procedure (AOP) for an

Enclosure 2

inadvertent dilution. Examiners reviewed the printouts of reactivity after the scenario and observed that increasing load on the turbine had little or no effect on reactivity. SSR 09-0485

Simulator Audible
Annunciator

During administration of multiple Job Performance Measures (JPMs), it was noted that the simulator audible annunciator failed to annunciate upon receipt of the first alarm. In all cases, this anomaly occurred after the simulator was reset to the initial conditions for the next JPM to be administered. SSR 09-0432