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

April 16, 2012

Mr. Christopher L. Burton
Vice President
Carolina Power & Light Company
Shearon Harris Nuclear Plant
5413 Shearon Harris Road
New Hill, NC 27562-0165

SUBJECT: SHEARON HARRIS NUCLEAR POWER PLANT – NRC OPERATOR LICENSE EXAMINATION REPORT 05000400/2012301

Dear Mr. Burton:

During the period February 13 - 22, 2012, the Nuclear Regulatory Commission (NRC) administered operating tests to employees of your company who had applied for licenses to operate the Shearon Harris Nuclear 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 February 28, 2012.

Seven Reactor Operator (RO) applicants and four of the five Senior Reactor Operator (SRO) applicants passed both the operating test and written examination. One SRO failed the written examination. There were two post-administration comments concerning the written examination. These comments, and the NRC resolution of these comments, are summarized in Enclosure 2. A Simulator Fidelity Report is included in this report as Enclosure 3.

The initial examination submittal was within the range of acceptability expected for a proposed examination. All examination changes agreed upon between the NRC and your staff were made according to NUREG-1021, Operator Licensing Examination Standards for Power Reactors, Revision 9, Supplement 1.

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) 997-4436.

Sincerely,

/RA/

Mark E. Franke, Chief
Operations Branch 2
Division of Reactor Safety

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

Enclosures:
1. Report Details
2. Facility Comments and NRC Resolution
3. Simulator Fidelity Report

cc w/encls. (See page 3)

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SIGNATURE	RSB	KDS	EL		REM via email
NAME	R. BALDWIN	K. SCHAAF	E. LEA	M. FRANKE	R. MUSSER
DATE	4/12/2012	4/12/2012	4/12/2012	4/16/2012	4/13/2012
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO
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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.:	50-400
License No.:	NPF-63
Report No.:	05000400/2012301
Licensee:	Carolina Power & Light Company
Facility:	Shearon Harris Nuclear Plant, Unit 1
Location:	5413 Shearon Harris Road New Hill, NC 27562
Dates:	Operating Test – February 13 – 22, 2012 Written Examination – February 28, 2012
Examiners:	Richard S. Baldwin, Chief Examiner, Senior Operations Engineer Kenneth D. Schaaf, Chief Under-Instruction, Operations Engineer Ronald F. Aiello, Senior Operations Engineer Edwin Lea, Senior Operations Engineer David R. Lanyi, Operations Engineer
Approved by:	Mark E. Franke, Chief Operations Branch 2 Division of Reactor Safety

SUMMARY OF FINDINGS

ER 05000400/2012301; operating test February 12 – 22, 2012, & written exam February 28, 2012; Shearon Harris Nuclear 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 Plant staff developed both the operating tests and the written examination.

The NRC administered the operating tests during the period February 12 – 22, 2012. Members of the Shearon Harris Nuclear Plant training staff administered the written examination on February 28, 2012. Seven Reactor Operator (RO) and four of the five Senior Reactor Operator (SRO) applicants passed both the operating test and written examination. One of the SRO applicants failed the written examination. All applicants who passed the examinations were issued licenses commensurate with the level of examination administered.

There were two post-examination comments.

No findings 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 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 Seven Reactor Operator (RO) and Five Senior Reactor Operator (SRO) applicants using the guidelines contained in NUREG-1021. The examiners administered the operating tests during the period February 12 – 22, 2012. Members of the Shearon Harris Nuclear Plant training staff administered the written examination on February 28, 2012. 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 were identified. The NRC determined, using NUREG-1021 that the licensee's initial examination submittal was within the range of acceptability expected for a proposed examination.

Seven RO and four of the five SRO applicants passed both the operating test and written examination and were issued licenses. One SRO applicant passed the operating test, but failed the written examination.

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

During one scenario, the Condensate Storage Tank level indication on the computer screen had a decreasing trend. One of the three crews pursued this indication as if it were a leak in the tank. Licensee staff determined that the trend was in error and submitted a Simulator Service Request (SSR) to correct the issue (SSR 12-0053).

During simulator reset after one scenario, a computer display for selected parameter trends would not reset. The display was to be used frequently during the scenario so the licensee made the decision to troubleshoot the problem. This delayed the start of the next scenario by five hours. The licensee submitted an (AR-519021).

The licensee submitted two post-examination comments concerning the written examination (ADAMS under Accession Number ML12093A042). A copy of the final SRO and RO written examination and answer key, with all changes incorporated, and the licensee's post-examination comments may be accessed not earlier than February 28, 2014, in the ADAMS system (ADAMS Accession Numbers ML1206905673 and ML12102A038.

4OA6 Meetings

Exit Meeting Summary

On February 23, 2012, the NRC examination team discussed generic issues associated with the operating test with Mr. E. Kapopoulos, Harris Plant General Manager, and members of the Shearon Harris Nuclear 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

E. Kapopoulos, Plant General Manager Harris Plant
D, Griffith, Manager - Training
F. Womack, Manager - Operations
S. Schwindt, Operations Training Supervisor
A. Lucky, Senior Nuclear Operations Training Instructor
M. McDade, Simulator Support
A. Spencer, Senior Nuclear Operations Training Instructor
A. Sylvester, Supervisor - Operations Initial Training
R. Horton, Senior Nuclear Operations Training Instructor
M. Wallace, Senior Specialist - Licensing

NRC personnel

J. Austin, Senior Resident Inspector, Harris Nuclear Plant
M. Franke, Chief, Operations Branch II

FACILITY POST-EXAMINATION COMMENTS AND NRC RESOLUTIONS

A complete text of the licensee's post examination comments can be found in ADAMS under Accession Number ML12093A042.

SRO Question #79

LICENSEE COMMENT:

The question deals with depressurizing the intact Steam Generators (SG) during a loss of offsite power with the inability of either emergency diesel generator to energize their respective emergency busses. The question asks the applicant to identify the **minimum** pressure that EPP-001, "Loss of AC Power to IA-SA and IB-SB Busses" allows the intact Steam Generators to be depressurized to and the reason for the pressure reduction.

The licensee contends that a CAUTION (prior to Step 35) in the procedure that gives a MINIMUM pressure to prevent injection of accumulator nitrogen into the RCS is the minimum pressure allowed by the procedure as stated below:

> *EPP-001, Loss of AC Power to IA-SA and IB-SB Busses:*
>
> *SC pressures should be maintained above 130 PSIG. This will prevent injection of accumulator nitrogen into the RCS.*

Because of this CAUTION the licensee states that the correct answer should be changed from "C" to "A."

NRC DISCUSSION:

The NRC disagrees with the licensee's comment. The procedure referenced in the question gives specific guidance concerning the Steam Generator pressure reduction and the minimum pressure to be maintained while in that procedure.

> *EPP-001, Loss of AC Power to IA-SA and IB-SB Busses*
>
> *Step 35 Depressurize Intact SGs to 230 PSIG:*
>
> *Step 35.d Control SG PORVs to maintain SG pressures between 230 PSIG and 180 PSIG.*

There are no additional steps in EPP-001 that direct operators to reduce SG pressure to a lower pressure than 180 PSIG. The CAUTION is a reminder that if depressurization gets as low as 130 PSIG then nitrogen will be injected into the RCS. CAUTIONs in Emergency Operating Procedures are not ACTION steps that operators are expected to take. Harris EOP-Users Guide, states that: "CAUTIONS - these contain information about potential hazards to personnel or equipment, and may also provide guidance on how the hazard can be avoided." The licensee identified that the CAUTION provides the pressure that an intact SG should be depressurized to. The NRC does not agree with this determination and has determined that procedure Step 35.d. identifies the minimum pressure that the intact S/G should be depressurized to and that is 180 PSIG and that corresponds to the original answer.

NRC RESOLUTION:

Based on the above discussion, the licensee's recommendation is NOT accepted and the question will remain as is. No change to the answer key is warranted.

SRO Question #93

LICENSEE COMMENT:

The question deals with requirements for reviewing and authorization (signing) for a Waste Gas release when environmental conditions change.

The licensee contends that the question has no correct answer in response to who is responsible to review and sign the Batch Gaseous Effluent Permit to authorize the release in accordance with OPS-NGGC-1000, "Fleet Conduct of Operations."

The licensee stated that while NGGC-1000 requires the Control Room Supervisor to approve the release permit, while OP-120.07 "Waste Gas System Operating Procedure" requires the Superintendent-Shift Operations to review and sign the permit. In the initial conditions of the question, OP-120.07 is stated as being in progress. Based on this information, the licensee states that there is no correct answer and the question should be deleted from the examination.

NRC DISCUSSION:

The NRC agrees with the licensee's comments. The following list identifies five different documents associated with waste gas release that requires different individuals for review, signature, and or final approval.

- OPS-NGGC-1000 "Fleet Conduct of Operations" and CRC-853 "Waste Gas Decay Tanks" state that the Control Room Supervisor will approve all Radwaste liquid and gaseous release permits.
- OP-120.07 "Waste Gas System Operating Procedure" states the Superintendent-Shift Operations review and sign the Batch Gaseous Effluent Permit.
- OMM-001 "Operations Administrative Requirements" states that the Superintendent-Shift Operations is equivalent to the Shift Manager.
- The actual Batch Gaseous Effluent Permit provided by the licensee states that the Shift Supervisor must sign for the final approval.

Based on the above references, the NRC concluded that there are numerous procedures that provide conflicting guidance concerning permit review, approval, and signature.

The NRC strongly recommends that the licensee revise those procedures/permits or any other documents not identified here in described, to reflect a uniform approval/signing requirement associated with waste gas releases.

NRC RESOLUTION:

Based on the above discussion, the licensee's recommendation is accepted and the question deleted. The answer key will be changed to reflect that the question will be deleted.

SIMULATOR FIDELITY REPORT

Facility Licensee: Shearon Harris Nuclear Plant

Facility Docket No.: 05000400

Operating Test Administered: February 12 - 22, 2012

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:

Item	Description
CST level inadvertently trending down during a scenario.	During one of the scenarios after the crew took the shift, CST level started trending downward. The crew took actions to troubleshoot the issue but could not find a cause for the trend. After the scenarios were complete for that day, the simulator staff found that the condensate from the Gland Stem Condenser was not being returned to the condensate stream as it should have been. SSR 12-0053 was written to address this issue.