

# UNITED STATES NUCLEAR REGULATORY COMMISSION

REGION II 245 PEACHTREE CENTER AVENUE NE, SUITE 1200 ATLANTA, GEORGIA 30303-1257

June 14, 2011

Mr. T. Preston Gillespie, Jr. Site Vice President Duke Energy Carolinas, LLC Oconee Nuclear Station 7800 Rochester Highway Seneca, SC 29672

SUBJECT: OCONEE NUCLEAR STATION - NRC EXAMINATION REPORT

05000269/2011301, 05000270/2011301 AND 05000287/2011301

Dear Mr. Gillespie, Jr.:

During the period May 2, 2011, through May 5, 2011, the Nuclear Regulatory Commission (NRC) administered operating tests to employees of your company who had applied for licenses to operate the Oconee Nuclear Station. At the conclusion of the tests, the examiners discussed preliminary findings related to the operating tests and the written examination submittal with those members of your staff identified in the enclosed report. The written examination was administered by your staff on May 13, 2011.

Five Reactor Operator (RO) and three Senior Reactor Operator (SRO) applicants passed both the operating test and written examination. There were four post-examination comments. The NRC resolutions to these comments are summarized in Enclosure 2. A Simulator Fidelity Report is included in this report as Enclosure 3.

The initial written SRO examination submitted by your staff failed to meet the guidelines for quality contained in NUREG-1021, Operator Licensing Examination Standards for Power Reactors, Revision 9, Supplement 1, as described in the enclosed report.

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 <a href="http://www.nrc.gov/reading-rm/adams.html">http://www.nrc.gov/reading-rm/adams.html</a> (the Public Electronic Reading Room).

DPC 2

If you have any questions concerning this letter, please contact me at (404) 997-4550.

Sincerely,

/RA/

Malcolm T. Widmann, Chief Operations Branch 1 Division of Reactor Safety

Docket Nos.: 50-269, 50-270, 50-287 License Nos.: DPR-38, DPR-47, DPR-55

# Enclosures

Summary of Findings & Report Details
 Facility Comments and NRC Resolution

3. Simulator Fidelity Report

cc w/encl.: (See page 3)

DPC 3

cc w/encl:

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#### **Enclosures**

- Summary of Findings & Report Details
   Facility Comments and NRC Resolution
- 3. Simulator Fidelity Report

cc w/encl.: (See page 3)

# **Distribution w/encl:**

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DATE	06/13/2011	06/14/2011	06/13/2011				
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# **U.S. NUCLEAR REGULATORY COMMISSION**

### **REGION II**

Docket Nos.: 05000269, 05000270, 05000287

License Nos.: DPR-38, DPR-47, DPR-55

Report No.: 05000269/2011301, 05000270/2011301 and 05000287/2011301

Licensee: Duke Energy Carolinas LLC.

Facility: Oconee Nuclear Station, Units 1, 2, and 3

Location: Seneca, SC

Dates: Operating Tests – May 2, 2011, through May 5, 2011

Written Examination – May 13, 2011

Examiners: M. Bates, Chief, Senior Operations Engineer

F. Ehrhardt, Senior Reactor Inspector G. Laska, Senior Operations Examiner

Approved by: Malcolm T. Widmann, Chief

Operations Branch 1 Division of Reactor Safety

## **SUMMARY OF FINDINGS**

ER 05000269/2011301; 05000270/2011301; 05000287/2011301; operating test 05/02/2011 – 05/05/2011 & written exam 05/13/2011; Oconee Nuclear Station, Units 1, 2, and 3 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.

Members of the Oconee Nuclear Station staff developed both the operating tests and the written examination. The initial written SRO examination submittal did not meet the quality guidelines contained in NUREG-1021.

The NRC administered the operating tests during the period of May 2, 2011, through May 5, 2011. Members of the Oconee Nuclear Station training staff administered the written examination on May 13, 2011. Five Reactor Operator (RO) and three Senior Reactor Operator (SRO) applicants passed both the written examination and operating test. Eight applicants were issued licenses commensurate with the level of examination administered.

There were four post-examination comments. The NRC resolutions to these comments are summarized in Enclosure 2.

No findings of significance were identified.

## **Report Details**

## 4. OTHER ACTIVITIES

# 4OA5 Operator Licensing Initial Examinations

# a. Inspection Scope

Members of the Oconee 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 examiners reviewed the licensee's examination security measures while preparing and administering the examinations to ensure examination security and integrity complied with 10 CFR 55.49, "Integrity of Examinations and Tests." One noncompliance of security requirements occurred on May 12, 2011, when the licensee emailed two written examination questions to the Chief Examiner without password protection as required by NUREG-1021. The security risk was evaluated by the NRC prior to the examination being administered and determined to be minimal. The licensee documented this event in PIP-O-11-6050.

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 of May 2, 2011, through May 5, 2011. Members of the Oconee Nuclear Station training staff administered the written examination on May 13, 2011. Evaluations of applicants and reviews of associated documentation were performed to determine if the applicants, who applied for licenses to operate the Oconee Nuclear Station, met the requirements specified in 10 CFR Part 55, "Operators' Licenses."

## b. <u>Findings</u>

The NRC determined that the licensee's initial RO written examination submittal and operating test submittal were within the range of acceptable quality expected for a proposed examination as specified by NUREG-1021. However, the NRC determined that the licensee's SRO written examination submittal was outside the range of acceptable quality because more than 20% (7 of 25, or 28%) of the questions sampled for review contained unacceptable flaws. Individual questions were evaluated as unsatisfactory for the following reasons:

- Three questions contained two or more implausible distractors.
- Two guestions were not written at the SRO license level.
- One guestion contained more than one correct answer.
- One question contained no correct answer.

The written examination was originally scheduled to be administered on May 11, 2011; however, administration was delayed by two days due to the licensee submitting concerns with 16 questions. Continued validation by the licensee, after their examination had already been submitted, revealed numerous question flaws of varying degrees of severity. All concerns were evaluated and addressed by the NRC prior to examination administration. The final evaluation of these concerns did not impact the status of the RO written examination being within the range of acceptable quality.

Five RO and three SRO applicants passed both the operating test and written examination. Eight licenses were issued.

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

There were four post-examination comments. The NRC resolution to these comments is summarized in Enclosure 2. A copy of the final written examination and answer key may be accessed not earlier than July 1, 2013, in the ADAMS system (ADAMS Accession Number ML111380080 and ML111380083). The licensee's post-examination comments pertained only to the operating test and may be accessed in the ADAMS system (ADAMS Accession Number ML111380076).

# 4OA6 Meetings

## **Exit Meeting Summary**

On May 6, 2011, the NRC examination team discussed generic issues associated with the operating test with Mr. S. Batson, Station Manager, and members of his staff. The examiners asked the licensee if any of the examination material was proprietary. No proprietary information was identified.

On June 1, 2011, The NRC Chief Examiner discussed issues associated with the development of the written examination with Mr. J. Steely, Operations Training Manager, and members of his staff.

#### PARTIAL LIST OF PERSONS CONTACTED

#### Licensee personnel

- S. Batson, Station Manager
- E. Burchfield, Operations Superintendent
- F. Baldwin, Operations Shift Manager
- D. Hubbard, Training Manager
- R. Robinson, Operations Shift Manager
- P. Stovall, Training Manager Operations Fleet Training
- J. Steely, Operations Training Manager
- G. Washburn, Training Instructor
- C. Witherspoon, Training Instructor
- J. Smith, Licensing

## NRC personnel

A. Sabisch, Senior Resident Inspector

# NRC Disposition of Oconee 2011-301 Post-Examination Comments:

Four post-examination comments were submitted on the operating test and may be accessed in the ADAMS system (ADAMS Accession Number ML111380076).

## **COMMENT #1:**

Correction for Scenario 2. Form ES-D-2:

Step 35 of EOP Enclosure 5.1 stated that when either

- (1) three LPSW pumps were operating, or
- (2) two LPSW pumps were operating when Technical Specifications (TS) only required two to be operating.

Then 1LPSW-4 and 1LPSW-5 were required to be opened. Neither condition was met, therefore the applicants were not expected to ensure 1LPSW-4 and 1LPSW-5 were opened.

## **RECOMMENDATION:**

The licensee stated that the applicants were not expected to ensure 1LPSW-4, and 1LPSW-5 were open due to not meeting the conditions of Step 35, which would have required these two valves to be in the open position.

#### NRC RESOLUTION:

NRC agreed with the licensee's comment and incorporated the resolution into the applicant grading because neither of the above stated conditions were met.

# **COMMENT #2:**

Correction for Scenario 3, Form ES-D-2.

#### **RECOMMENDATION:**

The licensee stated that actions of TS 3.4.1 were not required because the LCO did not apply in Mode 2.

#### **NRC RESOLUTION:**

NRC agreed with the licensee's comment and incorporated the resolution into the applicant grading because the LCO did not apply to the plant Mode.

# COMMENT #3:

The licensee submitted a comment at the Chief Examiner's request to ensure accurate grading of In-Plant JPM (NLO-600), which required the applicant to transfer MCC 2XA between normal and emergency power. The circumstance in question occurred when an applicant incorrectly opened the normal feeder breaker and then reclosed it.

#### **RECOMMENDATION:**

The licensee stated that momentarily opening the normal feeder breaker would not have negatively impacted the plant or the applicant's successful completion of the task.

#### NRC RESOLUTION:

NRC agreed with the licensee's comment and incorporated the resolution into the applicant grading.

## **COMMENT #4:**

The licensee submitted a comment at the Chief Examiner's request to ensure accurate grading of JPM ADMIN-124, which required the applicants to make a determination on minimum shift staffing. The licensee obtained confirmation from their Licensing Department on the correct application of Selected Licensee Commitment (SLC) 16.13.1 for minimum staffing of the facility given a set of plant conditions. The licensee stated that all requirements of SLC 16.13.1 could be met with three Senior Reactor Operators (SROs).

#### **RECOMMENDATION:**

The licensee stated that the original answer key in their final examination submittal was accurate.

#### NRC RESOLUTION:

Upon further review of SLC 16.13.1, and the licensee's justification, the NRC agreed with the licensee's comment and graded the applicant's performance using the answer key contained in the licensee's final submittal.

## SIMULATOR FIDELITY REPORT

Facility Licensee: Oconee Nuclear Station

Facility Docket No.: 05000269/2011301, 05000270/2011301 AND 05000287/2011301

Operating Test Administered: May 2, 2011, through May 5, 2011

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 no simulator fidelity or configuration issues.