



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

May 13, 2010

Mr. David A. Baxter  
Site Vice President  
Duke Energy Carolinas, LLC  
Oconee Nuclear Station  
7800 Rochester Highway  
Seneca, SC 29672

SUBJECT: OCONEE NUCLEAR STATION – NRC OPERATOR LICENSE EXAMINATION  
REPORT 05000269/2010301, 05000270/2010301, AND 05000287/2010301

Dear Mr. Baxter:

During the period March 29 – April 02, 2010 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 with those members of your staff identified in the enclosed report. The written examination was administered by your staff on April 07, 2010.

All applicants passed both the operating test and written examination. There were three post-administration comments concerning the operating test. 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.

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) 997-4550.

Sincerely,

*/RA/*

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

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

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

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DATE	05/12/2010	05/13/2010	05/13/2010	05/13/2010	05/12/2010		
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

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3

Letter to David A. Baxter from Malcolm T. Widmann dated May 13, 2010

SUBJECT: OCONEE NUCLEAR STATION – NRC OPERATOR LICENSE EXAMINATION  
REPORT 05000269/2010301, 05000270/2010301, AND 05000287/2010301

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**NUCLEAR REGULATORY COMMISSION**

REGION II

Docket No.: 50-269, 50-270, 50-287

License No.: DPR-38, DPR-47, DPR-55

Report No.: 05000269/2010301, 05000270/2010301, 05000287/2010301

Licensee: Duke Energy Corporation

Facility: Oconee Nuclear Station

Location: Seneca, SC 29672

Dates: Operating Test – March 29 – April 02, 2010  
Written Examination – April 07, 2010

Examiners: G. Laska, Chief Examiner, Senior Operations Examiner  
F. Ehrhardt, Senior Operations Engineer  
R. Aiello, Senior Operations Engineer

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

## **SUMMARY OF FINDINGS**

ER 05000269/2010301, 05000270/2010301, 05000287/2010301, 03/29-04/02/2010 & 04/07/2010; Oconee Nuclear Station; 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 NRC administered the operating tests during the period March 29 – April 02, 2010. Members of the Oconee Nuclear Station training staff administered the written examination on April 07, 2010. All Reactor Operator (RO) and Senior Reactor Operator (SRO) applicants passed both the operating test and written examination. Nine applicants were issued licenses commensurate with the level of examination administered.

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

No findings of significance were identified.

## REPORT DETAILS

### 2. OTHER ACTIVITIES

#### 4OA5 Operator Licensing Initial Examinations

##### a. Inspection Scope

Members of the Oconee Nuclear Station 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 six 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 March 29 – April 02, 2010. Members of the Oconee Nuclear Station training staff administered the written examination on April 07, 2010. 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. Findings

No findings of significance were identified. The NRC determined, using NUREG-1021, that the licensee's examination submittal was within the range of acceptability expected for a proposed examination.

Nine applicants passed both the operating test and written examination and were issued licenses.

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 three post-examination comments. A copy of the final written examination and answer key, with all changes incorporated, and post exam comments may be accessed in the ADAMS system (ADAMS Accession Number ML101310324 and ML101310308 and ML101310299).

## 4OA6 Meetings

### Exit Meeting Summary

On April 02, 2010 the NRC examination team discussed generic issues associated with the operating test with you and members of the Oconee Nuclear Station 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. Alter, Regulatory Compliance  
F. Baldwin, Operations Shift Manager  
D. Baxter, Site VP  
E. Burchfield, Operations Superintendent  
P. Gillespie, Station Manager  
D. Hubbard, Training Manager  
S. Lark, ILT Supervisor  
R. Meixell, Regulatory Compliance  
R. Robinson, Operations Shift Manager  
M. Stephens, Shift Operations Manager  
P. Stovall, Training Manager Operations Fleet Training COE  
G. Washburn, Initial Training Supervisor  
C. Witherspoon, Training Instructor

#### NRC personnel

A. Sabisch, Senior Resident Inspector



## **NRC Disposition of Oconee 2010-301 Post Examination Comments:**

Three post exam comments were submitted on the operating test.

### **1.) Control Room JPM “a”: CRO -108 (Perform Reactor Manual Trip Test)**

**STEP 11:** Step 12.2.2K  
Depress and Hold REACTOR TRIP pushbutton

**STANDARD:** Depress and Hold REACTOR TRIP pushbutton located on UB1.

This step is identified as a “CRITICAL STEP”.

#### **COMMENT:**

Depressing the REACTOR TRIP pushbutton is required to perform the test and meet the acceptance criteria.

PT/1/A/0305/001 Reactor Manual Trip Test acceptance criteria states:  
“All CRD breakers open when Reactor Trip pushbutton is depressed”

CRD breakers opening as required were accomplished in all observed cases of JPM administration. The specific hold period as indicated in the procedure step is to ensure the computer SPDS points update. The computer points updating are not part of the test acceptance criteria and are not required for operability of the CRD breakers and trip subsystem. This was verified with an on-shift Shift Technical Advisor and Operations Management.

If the reactor manual trip pushbutton were to be depressed but not held during actual plant performance of the test, the test would be evaluated as “acceptance criteria met” and the hold issue would be categorized as a procedure use issue and a PIP initiated to document.

After discussions with the Operations Superintendent, PIP O-10-2309 was written to evaluate adding a note to the procedure prior to the step providing explanation on the specific desire to hold the pushbutton to ensure the computer point’s update.

#### **RECOMMENDATION:**

The second part of the step (Hold REACTOR TRIP pushbutton and the step to release the reactor trip pushbutton) should NOT be identified as critical.

#### **NRC Resolution:**

The NRC agrees the depressing and holding of the REACTOR TRIP pushbutton should not be a critical step because it is not a part of the acceptance criteria, and the task can be completed without holding the REACTOR TRIP pushbutton until directed by the procedure to be released. The NRC will document the failure to hold the REACTOR TRIP pushbutton in until directed by the procedure to release as a procedure adherence issue.

## 2.) Administrative JPM: Admin – 402 (Perform Actions for Medical Emergency)

### STEP 14: Step 1.8

IF Hospital evacuation is needed as determined by MERT Command or as indicated by step 1.8.1 Then Arrange transport of patient to the hospital by one of the following means:

- EMS (ambulance)

Dial 9-911 from the Operations Shift Manager's phone or Unit 1 Control Room Sort's phone or dial 911 from the Bell South line – Unit 1, 2, and 3 Control Rooms. Refer to Step 1.8.2 prior to requesting EMS.

- Company vehicle (less serious injury)
- Personal Vehicle (less serious injury)

**Cue: This will have to be simulated only, since simulator phones do not model outside lines.**

**STANDARD:** Determine that a Hospital evacuation is required due to the person being unconscious. Ambulance is requested by calling 9-911. Ambulance is requested to come to Oconee Nuclear Station.

This step is identified as a "Critical Step".

### **COMMENT:**

During administration of this JPM, one candidate completed this step by calling security and requesting that they call for the ambulance. During performance of this task in the plant the RO would often delegate other people to assist in completing steps of this procedure. This would be done to expedite getting the injured person help. Ensuring that an ambulance is called is the critical part of this step.

### **RECOMMENDATION:**

Delegating calling the ambulance to another person is an acceptable method to complete this step.

### **NRC Resolution:**

The NRC agrees requesting an ambulance for the unconscious victim is critical. Delegating the calling of the ambulance, while not listed as one of the means, does not appear to be in conflict with the procedure. Delegating the arrangement of transportation to the hospital to security staff is acceptable. Typically security would have to be notified to allow the ambulance on site, and this would improve efficiency. The NRC accepts this recommendation, and directing the requesting of an ambulance by security is acceptable.

### 3.) Administrative JPM: Admin – 402 (Perform Actions for Medical Emergency)

STEP 7: Step 1.5.1

Use the following directions to activate radios and pagers encoded to the MERT alert tones:

1. Press the “GREEN” button labeled “MERT” on the paging console
2. Press the “RED” button labeled “transmit” on the right bottom of the console and wait approximately 3 seconds
3. Pick up telephone “handset” on console and press the lever located inside the handset
4. Transmit message

STANDARD: Locate paging console in the OSM booth in the simulator.

**Cue: Inform the candidate that the screen at the top of the phone is illuminated and contains the word “Operations”**

Press the “GREEN” button labeled “MERT” on the paging console

**Cue: Inform the candidate that upper light to the left of the green MERT key illuminates green when the MERT button is depressed.**

Press the “RED” button labeled “transmit” on the right bottom of the console and wait approximately 3 seconds

**Cue: Inform the candidate that light above the TRANSMIT key illuminates red and a “warble tone” is heard when the TRANSMIT button is depressed.**

Pick up telephone “handset” on console and press the lever located inside the Handset  
Transmit message

This step is identified as a “CRITICAL STEP”.

**COMMENT:**

During administration of this JPM, the candidates indicated that they were not familiar with the “warble tone” when the TRANSMIT button was depressed. This examiner cue was added based on feedback during the validation of this JPM. It was intended to give the candidate feedback on actions they were taking. It was not intended to be part of the critical step. The Critical part of the step is depressing the transmit button. Verification of the audible feedback is not required for completion of the step.

**RECOMMENDATION:**

Knowledge of the warble tone should NOT be considered when determining completion of this critical step.

**NRC Resolution:**

The NRC agrees that it is critical for the applicant to press the "GREEN" button labeled "MERT" on the paging console, press the "RED" button labeled "transmit" on the right bottom of the console and wait approximately 3 seconds, and then pick up telephone "handset" on console and press the lever located inside the handset and transmit the message. Therefore as long as the message was transmitted this step of the JPM will be graded as satisfactory.

## SIMULATION FACILITY REPORT

Facility Licensee: Oconee Nuclear Station

Facility Docket Nos.: 05000269/05000270/05000287

Operating Tests Administered on: March 29 - April 2, 2010

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>Items</u>	<u>Description</u>
All Heater Drain tank pump Tripped	During one scenario the crew attempted to secure the 1E1 HDP, and when its switch was taken to "off" all four HDPs tripped. WR 1765 was written to document the issue.
EH alarm during administration of JPM CRO-601	An EH alarmed came in during the performance of JPM CRO-601 Synchronization with the grid after a load rejection, but did not come in on prep week. WR 1767 was written to document the issue.
Simulator B had a simulator STOP.	During the preparation week while validating a scenario simulator B displayed erroneous responses in both primary and secondary parameters which eventually resulted in a simulator "STOP". The scenario was run on simulator A with the same results. WR1758 was written to document the issue.
Power Excursion when 4 <sup>th</sup> reactor coolant pump started.	One of the scenarios initially contained a requirement to start the 4 <sup>th</sup> RCP while at power. During preparations of the scenario the exam team identified a significant power excursion when the pump was started in accordance with existing procedures. PIP O-10-0716 was written to address and document the issue.