



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

January 23, 2014

Mr. Steven D. Capps  
Site Vice President  
Duke Energy Corporation  
McGuire Nuclear Station  
MG01VP/12700 Hagers Ferry Road  
Huntersville, NC 28078

**SUBJECT: MCGUIRE NUCLEAR PLANT – NRC OPERATOR LICENSE EXAMINATION  
REPORT 05000369/2013301 AND 05000370/2013301**

Dear Mr. Capps:

During the period December 2 – 6, 2013, the Nuclear Regulatory Commission (NRC) administered operating tests to employees of your company who had applied for licenses to operate the McGuire Nuclear Plant Units 1 and 2. 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 December 12, 2013.

All applicants passed both the operating test and written examination. There were no post-administration comments. A Simulator Fidelity Report is included in this report as Enclosure 2.

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).

S. Capps

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 No.: 50-369, 50-370  
License No.: NPF-9, NPF-17

Enclosures:

1. Report Details
2. Simulator Fidelity Report

cc: Distribution via Listserv

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 No.: 50-369, 50-370  
License No.: NPF-9, NPF-17

Enclosures:

- 1. Report Details
- 2. Simulator Fidelity Report

cc: Distribution via Listserv

PUBLICLY AVAILABLE     
  NON-PUBLICLY AVAILABLE     
  SENSITIVE     
  NON-SENSITIVE  
 ADAMS:X  Yes   
 ACCESSION NUMBER: ML14028A208     
  SUNSI REVIEW COMPLETE   
 FORM 665 ATTACHED

|              |             |              |             |              |            |             |          |
|--------------|-------------|--------------|-------------|--------------|------------|-------------|----------|
| OFFICE       | RII:DRS     | RII:DRS      | RII:DRS     | NRO          | RII:DRS    | RII:DRP     |          |
| SIGNATURE    | <b>GWL1</b> | <b>AXG1</b>  | <b>NTL2</b> | <b>JXD18</b> | <b>MTW</b> | <b>GJM1</b> |          |
| NAME         | GLaska      | AGoldau      | NLacy       | JDeMarshall  | MWidmann   | GMcCoy      |          |
| DATE         | 01/22 /2014 | 01/ 22 /2014 | 01/22 /2014 | 01/22 /2014  | 1/23/2014  | 1/22/2014   | 1/ /2014 |
| E-MAIL COPY? | YES NO      | YES NO       | YES NO      | YES NO       | YES NO     | YES NO      | YES NO   |

OFFICIAL RECORD COPY    DOCUMENT NAME: G:\OLEXAMS\MCGUIRE EXAMINATIONS\INITIAL EXAM 2013-301\CORRESPONDENCE\MCGUIRE 2013-301 EXAM REPORT.DOCX

Letter to Steven D. Capps from Malcolm T. Widmann dated. January 23, 2014

SUBJECT: MCGUIRE NUCLEAR PLANT – NRC OPERATOR LICENSE EXAMINATION  
REPORT 05000369/2013301 AND 05000370/2013301

Distribution:

RIDSNRRDIRS

PUBLIC

RidsNrrPMMcGuire Resource

**U.S. NUCLEAR REGULATORY COMMISSION**

REGION II

Docket No.: 50-369, 50-370

License No.: NPF-9, NPF-17

Report No.: 05000369/2013301 and 05000370/2013301

Licensee: Duke Power

Facility: McGuire Nuclear Plant, Units 1 & 2

Location: Huntersville, NC 28078

Dates: Operating Test – December 2 – 6, 2013  
Written Examination – December 12, 2013

Examiners: G. Laska, Chief Examiner, Senior Operations Examiner  
A. Goldau, Operations Engineer  
N. Lacy, Operations Engineer  
J. DeMarshall, Operations Engineer, NRO

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

## **SUMMARY**

ER 05000369/2013301, 05000370/2013301; December 2 – 6, 2013 & December 12, 2013; McGuire Nuclear Plant, Units 1 and 2, 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 McGuire Nuclear Plant staff developed both the operating tests and the written examination.

The NRC administered the operating tests during the period December 2 – 6, 2013. Members of the McGuire Nuclear Plant training staff administered the written examination on December 12, 2013. All applicants passed both the operating test and written examination. Ten applicants were issued licenses commensurate with the level of examination administered.

There were no post-examination comments.

No findings were identified.

## REPORT DETAILS

### 4. OTHER ACTIVITIES

#### 4OA5 Operator Licensing Examinations

##### a. Inspection Scope

Members of the McGuire 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 five 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 December 2 – 6, 2013. Members of the McGuire Nuclear Plant training staff administered the written examination on December 12, 2013. Evaluations of applicants and reviews of associated documentation were performed to determine if the applicants, who applied for licenses to operate the McGuire Nuclear 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.

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 did not submit any post-examination comments. A copy of the final written examinations and answer keys, with all changes incorporated, may be accessed not earlier than December 14, 2015, in the ADAMS system (ADAMS Accession Number(s) ML14014A062 and ML14014A063).

#### 4OA6 Meetings, Including Exit

##### Exit Meeting Summary

On December 6, 2013, the NRC examination team discussed generic issues associated with the operating test with Mr. C. Morris, Plant Manager, and members of the McGuire 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

C. Morris, Plant Manager  
P. Schuerger, Training Manager  
B. Anderson, Operations Manager  
R. Pope, Operations Training Manager  
W. Killelte, Operations Exam Team Supervisor  
C. Cornwell, Assistant Operations Manager-Shift  
W. Hoyle, Assistant Operations Manager-Training  
S. Helms, Initial Licensed Operator Training Supervisor  
S. Mosteller, Operations Training Exam Team  
C. Fletcher, Operations Training Exam Team Lead

##### NRC personnel

J. Zeiler, Senior Resident Inspector



## SIMULATOR FIDELITY REPORT

Facility Licensee: McGuire Nuclear Plant

Facility Docket No.: 05000369/2013301 and 05000370/2013301

Operating Test Administered: December 2-6, 2013.

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>  |
|---|---|
| Digital Output Card 01-4-14 DO failed                 | During a simulator examination scenario digital output card 01-4-14DO failed. This caused a loss of the Rod Motion Display Recorder, Main Generator MW and MVAR displays. SDR-914 was written to address the issue. This failure was also documented in PIP M-13-10977.   |
| 'Digital Output Card 01-4-06 DO failed                | During a simulator examination scenario digital output card 01-4-06DO failed. This caused a loss of the Rods In Motion light, Rods Out Motion light, DCS alarm horn, 1A, 1B, and 1C CRD Vent fan on and off lights. SDR-915 was written to address the issue. This failure was also documented in PIP M-13-10977. |
| TDCA pump Tripped unexpectedly                        | During one of the exam scenarios the TDCA pump tripped unexpectedly. This same scenario was used two additional times without duplicating the pump trip. SDR-917 was written to address the issue. This failure was also documented in PIP M-13-10977.  |
| The OAC program MONL did not function as expected.    | During JPM development and JPM validation the OAC MONL program did not function as expected. SDR-916 was written to address the issue. This failure was also documented in PIP M-13-10977.  |
| 1CF Pump Suction Meter stayed at mid-scale            | During an examination JPM 1CF Pump Suction meter 1CMP-5970 would not move from mid-scale. It did not appear to be mechanically bound. SDR-913 was written to address the issue. This failure was also documented in PIP M-13-10977.   |
| Upper Surge Tank level decreased with make-up aligned | During an exam scenario Upper Surge Tank level continued to decrease even after make-up was aligned SDR-832 was written to address the issue. This failure was also documented in PIP M-13-10977.   |