



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

June 6, 2017

Southern Nuclear Operating Company, Inc.  
ATTN: Mr. Dennis Madison  
Vice President  
Joseph M. Farley Nuclear Plant  
7388 North State Highway 95  
Columbia, AL 36319

SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT – NRC EXAMINATION REPORT  
05000348/2017301 AND 05000364/2017301

Dear Mr. Madison:

During the period April 3-12, 2017, the Nuclear Regulatory Commission (NRC) administered operating tests to employees of your company who had applied for licenses to operate Joseph M. Farley Nuclear Plant. 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 April 18, 2017.

All the applicants passed both the operating test and written examination. There were no post-examination 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 10.

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) 997-4551.

Sincerely,

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Gerald J. McCoy, Chief  
Operations Branch 1  
Division of Reactor Safety

Docket Nos: 50-348 and 50-364

License Nos: NPF-2 and NPF-8

Enclosures:

1. Report Details
2. Simulator Fidelity Report

cc: Distribution via Listserv

SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT – NRC EXAMINATION REPORT  
05000348/2017301 AND 05000364/2017301 – dated June 6, 2017

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

OFFICE	RII:DRS	RII:DRS	RII:DRS				
SIGNATURE	<b>DRL2 VIA EMAIL</b>	<b>DRL2 FOR VIA EMAIL</b>	<b>GJM1</b>				
NAME	LANYI	LACY	MCCOY				
DATE	6/5/2017	6/5/2017	6/6/2017				
E-MAIL COPY?	YES NO	YES	YES NO	YES NO	YES NO	YES NO	YES NO

**U.S. NUCLEAR REGULATORY COMMISSION**

REGION II

Docket No.: 05000348, 05000364

License No.: NPF-2, NPF-9

Report No.: 05000348/2017301 AND 05000364/2017301

Licensee: Southern Nuclear Company (SNC), LLC

Facility: Joseph M. Farley Nuclear Plant

Location: Columbia, AL

Dates: Operating Test – April 3-12, 2017  
Written Examination – April 18, 2017

Examiners: D. Lanyi, Chief Examiner, Senior Operations Engineer  
N. Lacy, Chief Examiner (Under Instruction), Operations Engineer  
E. Lea, Regional Governmental Liaison Officer  
A. Goldau, Operations Engineer

Approved by: Gerald J. McCoy, Chief  
Operations Branch 1  
Division of Reactor Safety

## **SUMMARY**

ER 05000348/2017301 and 05000364/2017301; operating test April 3-12, 2017 & written exam April 18, 2017; Joseph M. Farley 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 10, 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 Farley Nuclear Plant staff developed both the operating tests and the written examination. The initial operating test, written Reactor Operator (RO) examination, and written Senior Reactor Operator (SRO) examination submittals met the quality guidelines contained in NUREG-1021.

The NRC administered the operating tests during the period April 3-12, 2017. Members of the Farley Nuclear Plant training staff administered the written examination on April 18, 2017 to six Reactor Operator and seven Senior Reactor Operator applicants. All applicants passed both the operating test and written examination. All 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

The NRC evaluated the submitted operating test by combining the scenario events and JPMs in order to determine the percentage of submitted test items that required replacement or significant modification. The NRC also evaluated the submitted written examination questions (Reactor Operator and Senior Reactor Operator questions considered separately) in order to determine the percentage of submitted questions that required replacement or significant modification, or that clearly did not conform with the intent of the approved knowledge and ability (K/A) statement. Any questions that were deleted during the grading process, or for which the answer key had to be changed, were also included in the count of unacceptable questions. The percentage of submitted test items that were unacceptable was compared to the acceptance criteria of NUREG-1021, "Operator Licensing Standards for Power Reactors."

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 administered the operating tests during the period April 3-12, 2017. The NRC examiners evaluated six Reactor Operator (RO) and seven Senior Reactor Operator (SRO) applicants using the guidelines contained in NUREG-1021. Members of the Farley Nuclear Plant training staff administered the written examination on April 18, 2017. Evaluations of applicants and reviews of associated documentation were performed to determine if the applicants, who applied for licenses to operate the Farley Nuclear Plant, met the requirements specified in 10 CFR Part 55, "Operators' Licenses."

The NRC evaluated the performance or fidelity of the simulation facility during the preparation and conduct of the operating tests.

##### b. Findings

No findings were identified.

The NRC developed the written examination sample plan outline. Members of the Farley Nuclear Plant training staff developed both the operating tests and the written examination. All examination material was developed in accordance with the guidelines contained in Revision 10 of NUREG-1021. 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 determined, using NUREG-1021, that the licensee's initial examination submittal was within the range of acceptability expected for a proposed examination.

All 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 did not submit any post-examination comments. A copy of the final written RO and SRO examinations and answer keys, with all changes incorporated may be accessed not earlier than April 18, 2019, in the ADAMS system (ADAMS Accession Numbers ML17137A316 and ML17137A334, respectively).

#### 40A6 Meetings, Including Exit

##### Exit Meeting Summary

On April 12, 2017 the NRC examination team discussed generic issues associated with the operating test with Dennis Madison, Site Vice-President, and members of the Farley Nuclear Plant staff. The examiners asked the licensee if any of the examination material was proprietary, or if any of the examination material received should be withheld from public disclosure. No proprietary information was identified. No information was identified that required withholding from public disclosure.

### **KEY POINTS OF CONTACT**

#### Licensee personnel

D. Madison	Site Vice-President
S. Briggs	Plant Manager
J. Horn	Operations Director
S. Henry	Work Management Director
B. Taylor	Regulatory Affairs Manager
D. Williams	Nuclear Oversight Manager
G. Pickar	Fleet Operations Training Manager
G. Ohmstede	Fleet Exam Manager
B. Reed	Training Director
B. Thornton	Operations Lead Instructor
C. Vince Richter	Operations Lead Instructor

#### NRC personnel

P. Niebaum	Senior Resident Inspector
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## SIMULATOR FIDELITY REPORT

Facility Licensee: Joseph M. Farley Nuclear Plant

Facility Docket No.: 05000348, 05000364

Operating Test Administered: April 3-12, 2017

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>
1.	<p>During a JPM on the Simulator, one component did not operate as expected. Upon initial investigation by the Farley staff, it was determined that sample valve, Q1P15SV3765, used to be an air operated valve (AOV), and due to a design change, is now a solenoid operated valve (SOV). The Simulator modeling had not been updated to change the modeling of the valve from an AOV to an SOV. When a malfunction occurred on the Simulator that caused a loss of air in Containment, the valve went closed. This should not have occurred since it is an SOV.</p> <p>Farley initiated Condition Report 10353893 to address this issue.</p>