



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

January 11, 2018

Mr. Mano Nazar  
President and Chief Nuclear Officer  
Nuclear Division  
Florida Power & Light Company  
Mail Stop EX/JB  
700 Universe Blvd.  
Juno Beach, FL 33408

**SUBJECT: TURKEY POINT NUCLEAR PLANT – NRC OPERATOR LICENSE  
EXAMINATION REPORT 05000250/2017301 AND 05000251/2017301**

Dear Mr. Nazar:

During the period October 23 – November 3, 2017, the Nuclear Regulatory Commission (NRC) administered operating tests to employees of your company who had applied for licenses to operate the Turkey Point 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 November 8, 2017.

Five Reactor Operator (RO) and nine Senior Reactor Operator (SRO) applicants passed both the operating test and written examination. One SRO applicant failed the operating test. There were three 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 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 11, 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 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,

*/RA/*

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

Docket Nos: 50-250, 50-251  
License Nos: DPR-31, DPR-41

Enclosures:

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

cc: Distribution via Listserv

SUBJECT: TURKEY POINT NUCLEAR PLANT – NRC OPERATOR LICENSE  
EXAMINATION REPORT 05000250/2017301 AND 05000251/2017301

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**U.S. NUCLEAR REGULATORY COMMISSION**

**REGION II**

Docket No.: 50-250, 50-251

License No.: DPR-31, DPR-41

Report No.: 05000250/2017301 and 05000251/2017301

Licensee: Florida Power & Light Company (FP&L)

Facility: Turkey Point Nuclear Plant, Units 3 and 4

Location: 9762 S. W. 344<sup>th</sup> Street  
Florida City, FL 33035

Dates: Operating Test – October 23 – November 3, 2017  
Written Examination – November 8, 2017

Examiners: J. Viera, Chief Examiner, Operations Engineer  
M. Kennard, Operations Engineer  
D. Reeser, Operations Engineer  
J. Dolecki, Operations Engineer

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

## **SUMMARY**

ER 05000250/2017301, 05000251/2017301; October 23 – November 3, 2017 & November 8, 2017; Turkey Point Nuclear Plant; Operator License Examinations.

Nuclear Regulatory Commission (NRC) examiners conducted an initial examination in accordance with the guidelines in Revision 11, 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 Turkey Point Nuclear Plant 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 October 23 – November 3, 2017. Members of the Turkey Point Nuclear Plant training staff administered the written examination on November 8, 2017. Five Reactor Operator (RO) and nine Senior Reactor Operator (SRO) applicants passed both the operating test and written examination. Ten applicants were issued licenses commensurate with the level of examination administered. Issuance of licenses for four SRO applicants has been delayed pending receipt of additional information.

There were three 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 job performance measures (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 (RO and SRO 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 October 23 – November 3, 2017. The NRC examiners evaluated five RO and ten SRO applicants using the guidelines contained in NUREG-1021. Members of the Turkey Point Nuclear Plant training staff administered the written examination on November 8, 2017. Evaluations of applicants and reviews of associated documentation were performed to determine if the applicants, who applied for licenses to operate the Turkey Point 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 Turkey Point 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 11 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 that the licensee's examination submittal was outside the range of acceptable quality specified by NUREG-1021. The SRO written examination submittal was outside the range of acceptable quality because more than 20% [7 of 25] of

questions contained unacceptable flaws. Individual questions were evaluated as unsatisfactory for the following reasons:

- 3 questions contained two or more implausible distractors.
- 2 questions on the SRO examination were not written at the SRO license level.
- 3 questions contained other unacceptable psychometric flaws.
- 2 questions contained multiple unacceptable flaws.

The NRC determined that the licensee's initial RO written examination and operating test submittals were within the range of acceptability expected for a proposed examination.

No issues related to examination security were identified during preparation and administration of the examination.

Five Reactor Operator (RO) and nine Senior Reactor Operator (SRO) applicants passed both the operating test and written examination. One SRO applicant passed the written examination but did not pass the operating test.

Five RO applicants and five SRO applicants were issued licenses. Issuance of licenses for four SRO applicants has been delayed pending receipt of additional information. Details concerning the need for additional information has been sent to the individual applicants and the facility licensee.

The examination team identified generic weaknesses which were discussed at the exit meeting. The first identified generic area was use and application of the facility Technical Specifications. The second identified generic area was use of response procedures.

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 concerning the written examination. A copy of the final written examination and answer key, with all changes incorporated, may be accessed not earlier than December 2, 2019, and a copy of the licensee's post-examination comments, may be accessed in the ADAMS system (ADAMS Accession Numbers ML17349A172, ML17349A188 and ML17349A209).

#### 40A6 Meetings, Including Exit

##### Exit Meeting Summary

On November 1, 2017 the NRC examination team discussed generic issues associated with the operating test with Brian Stamp, Plant General Manager, and members of the Turkey Point 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

Brian Stamp, Plant General Manager  
Cynthia Cashwell, Training Manager  
Robert Hess, Assistant Operations Manager-Training  
Chuck Sizemore, Fleet Training Director  
Mark Wilson, Continuing Training Supervisor  
Travis Ourett, Corporate Training CFAM  
Mike Koch, FPL Assessment  
Stavroula Mihalakea, FPL Licensing  
Tim Hodge, Operations Training – Exam Developer  
Dave Kuhl, Operations Training

Dan Orr, Senior Resident Inspector - USNRC



## FACILITY POST-EXAMINATION COMMENTS AND NRC RESOLUTIONS

A complete text of the post-examination comments can be found in ADAMS under Accession Number ML17349A209.

Item #1: RO Written Exam Question # 34

### Post-Examination Comment

The facility contended that an additional answer choice was correct for Question # 34.

This question concerned procedural actions required as a result of adverse plant conditions.

Question # 34

Given the following conditions:

- Unit 3 experiences a total loss of CCW.
- 3B RCP Motor bearing temperature is 200°F and rising.

Which one of the following completes the statement below?

The RO is required to trip (1) as directed by (2) foldout page.

- A. (1) all the RCPs  
(2) 3-ONOP-030, Component Cooling Water Malfunction
- B. (1) all the RCPs  
(2) 3-ONOP-041.1, RCP Malfunction
- C. (1) ONLY 3B RCP  
(2) 3-ONOP-030, Component Cooling Water Malfunction
- D. (1) ONLY 3B RCP  
(2) 3-ONOP-041.1, RCP Malfunction

Answer choice A was identified as the correct answer.

The facility recommended acceptance of answer choices A and D as correct for Question # 34 since two procedures that are applicable during the conditions direct different actions, which are both correct.

NRC Resolution

The facility's recommendation was not accepted.

Following review of the question answer choices, it was determined that the as-written question presented during administration was flawed due to multiple correct answers. This conclusion was based on the presence of one applicant clarification question, submitted during examination administration, as well as evaluation of the provided post-exam comment supporting documentation.

The facility recommended two answer choice acceptance for this question. Since both answer choices contained conflicting information the answer key to RO Written Exam Question # 34 was revised to delete this question.

Item #2: SRO Written Exam Question # 89Post-Examination Comment

An applicant contended that an incorrect answer choice had been identified for the first half question of Question # 89.

This question concerned a determination of procedural compliance during strainer backwashing.

Question # 89

Given the following conditions:

- Unit 4 is operating at 100% power.
- Backwashing 4A ICW/CCW and 4B ICW/TPCW strainers, is in progress.

While restoring:

- 4-50-324, ICW/CCW Basket Strainer A Inlet Isol, experiences a sheared pin (valve handwheel spins freely) and remains closed.
- POV-4-4883, ICW to TPCW Heat Exchangers Isolation Valve, is failed closed and will not re-open.

Which one of the following completes the statements below?

4-NOP-019, Intake Cooling Water System, limitations for strainer backwashing  
(1) violated.

Unit 4 US (2) required to be in at least HOT SHUTDOWN within the following 13 hours.

- A. (1) are  
(2) is
- B. (1) are  
(2) is NOT
- C. (1) are NOT  
(2) is
- D. (1) are NOT  
(2) is NOT

Answer choice D was identified as the correct answer.

The applicant recommended acceptance of either answer choice B as an additional correct answer or question deletion based on 4-NOP-019, Section 2.2, Paragraph 3.3, which states:

3. While isolating an ICW/CCW Strainer, ICW flows below "Minimum Required ICW/CCW Flowrate" are permitted for up to 5 minutes, without declaring ICW System inoperable. If flow is below the "Minimum Required ICW/CCW Flowrate" for greater than 5 minutes, then the ICW System shall be declared inoperable at the time when flow initially went below the "Minimum Required ICW/CCW Flowrate."

The applicant stated that there was no element of time specified in the question statement or in the question given conditions, to permit determination of TS entry criteria as specified in Paragraph 3.3, i.e. application of the five minute allowance.

The facility concurred with the applicant position advocating deletion of this question. The facility contended that since a TS entry statement concerning ICW header INOPERABILITY was not included as part of the question statement or in the question given conditions, that applicants did not have all the information required to answer this question. The contention continued by stating that applicants could apply the Paragraph 3.3 TS entry relaxation allowance in different ways to arrive at conflicting answers.

#### NRC Resolution

Neither the applicant's recommendation nor the facility's recommendation were accepted.

Following review of the question statement, it was determined that the as-written question presented was valid. This conclusion was based on the examination submittal review, a lack of applicant clarification questions submitted during administration, and review of the post-exam comment supporting documentation.

Based on the supporting documentation provided, an incorrect answer was identified for this question. Specifically, based on the given failure of POV-4-4883, ICW to TPCW Heat Exchangers Isolation Valve, a single ICW header (Header 'B') was INOPERABLE. This given condition resulted in an INOPERABILITY that violated Paragraph 1.1 of 4-NOP-019, which states:

1. When in MODE 1, 2, 3, and 4, the ICW System shall be OPERABLE with three ICW pumps and two ICW headers.

The applicant recommended either two answer choice acceptance or question deletion while the licensee recommended deletion of this question. The answer key was revised to indicate answer choice B as the only correct answer to SRO Written Exam Question # 89.

Item #3: SRO Written Exam Question # 94Post-Examination Comment

The facility contended that an additional answer choice was correct for Question # 94.

This question concerned the responsibilities of the Shift Technical Advisor (STA).

Question # 94

Given the following conditions:

- Unit 3 is in MODE 5.
- Unit 4 is in MODE 4.

Which one of the following identifies the responsibilities of the SRO assigned to the STA position?

The SRO assigned to the STA (1) required to remain within 10 minutes of the control room and (2) allowed to assume command and control responsibilities.

- A. (1) is NOT  
(2) is
- B. (1) is NOT  
(2) is NOT
- C. (1) is  
(2) is
- D. (1) is  
(2) is NOT

Answer choice D was identified as the correct answer.

The facility recommended question deletion. This question did not specify answering in accordance with Tech Specs or 0-ADM-200, Operations Management Manual. If answering from a Tech Spec perspective, the STA is allowed to assume Command and Control functions as Tech Specs allows dual role to be assumed for the STA and Shift Manager positions (at Turkey Point all STAs are SRO licensed). 0-ADM-200 does not allow the STA to assume Command and Control functions.

### NRC Resolution

The facility's recommendation was not accepted.

Following review of the question statement, it was determined that the as-written question presented was valid. This conclusion was based on the examination submittal review, a lack of applicant clarification questions submitted during examination administration, and review of the post-exam comment supporting documentation.

The TS portion referenced as justification for answer choice C, Table 6.2-1, Minimum Shift Crew Composition, does not address the assumption of command and control responsibilities by the STA. There is no conflict between Tech Specs and 0-ADM-200 concerning the command and control responsibilities of the STA.

The facility recommended deletion of this question. Modification of the answer key based on the provided comment and supporting documentation was found to not be required, therefore, answer choice D remains as the only correct answer to SRO Written Exam Question # 94.

## **SIMULATOR FIDELITY REPORT**

Facility Licensee: Turkey Point Nuclear Plant

Facility Docket No.: 050000250, 050000251

Operating Test Administered: October 23 – November 3, 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.

No simulator fidelity or configuration issues were identified.