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

April 29, 2013

Mr. Mano Nazar
Executive Vice President and
Chief Nuclear Officer
Florida Power and Light Company
P.O. Box 14000
Juno Beach, FL 33408-0420

SUBJECT: TURKEY POINT NUCLEAR POWER PLANT – NRC OPERATOR LICENSE EXAMINATION REPORT 05000250/2013301 AND 05000251/2013301

Dear Mr. Nazar:

During the period March 4 – 11, 2013, the Nuclear Regulatory Commission (NRC) administered operating tests to employees of your company who had applied for licenses to operate the Turkey Point Nuclear Power 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 March 15, 2013.

Five Reactor Operator (RO) and four Senior Reactor Operator (SRO) applicants passed both the operating test and written examination. One RO applicant failed the written examination. There were three post-administration comments concerning the written examination. The post examination comments were identified in a letter dated March 22, 2013. 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 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).

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. 50-250 and 50-251
License Nos. DPR-31 and DPR-41

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

cc: (See page 3)

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ADAMS: X□ Yes ACCESSION NUMBER:_____ X□ SUNSI REVIEW COMPLETE □ FORM 665 ATTACHED

OFFICE	RII:DRS	RII:DRS	RII:DRP	RII:DRS		RII:DRS	
SIGNATURE	RA	RA	RA	RA			
NAME	GLaska	PCapehart	SSandal/DRich	MWidmann			
DATE	4/ 29/2013	4/ 29/2013	4/29 /2013	4/ 29/2013			
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO		YES NO	YES NO

OFFICIAL RECORD COPY DOCUMENT NAME: G:\OLEXAMS\TURKEY POINT EXAMINATIONS\INITIAL EXAM 2013-301\CORRESPONDENCE\TP 2013 301 EXAM REPORT REV1.DOCX

cc:
Alison Brown
Nuclear Licensing
Florida Power & Light Company
Electronic Mail Distribution

Larry Nicholson
Director
Licensing
Florida Power & Light Company
Electronic Mail Distribution

Michael Kiley
Site Vice President
Turkey Point Nuclear Plant
Florida Power and Light Company
Electronic Mail Distribution

Niel Batista
Emergency Management Coordinator
Department of Emergency Management
and Homeland Security
Electronic Mail Distribution

Paul Freeman
Vice President
Organizational Effectiveness
Florida Power & Light Company
Electronic Mail Distribution

Peter Wells
Vice President
Outage Support CFAM
Florida Power & Light Company
Electronic Mail Distribution

Robert J. Tomonto
Licensing Manager
Turkey Point Nuclear Plant
Florida Power & Light Company
Electronic Mail Distribution

Eric McCartney
Plant General Manager
Turkey Point Nuclear Plant
Florida Power and Light Company
Electronic Mail Distribution

Cynthia Becker
(Acting) Chief
Florida Bureau of Radiation Control
Department of Health
Electronic Mail Distribution

Senior Resident Inspector
Turkey Point Nuclear Generating Station
U.S. Nuclear Regulatory Commission
9762 SW 344th St.
Florida City, FL 33035

Attorney General
Department of Legal Affairs
The Capitol PL-01
Tallahassee, FL 32399-1050

James Petro
Managing Attorney-Nuclear
Florida Power & Light Company
Electronic Mail Distribution

County Manager of Miami-Dade County
111 NW 1st Street, 29th Floor
Miami, FL 33128

George Gretsas
City Manager
City of Homestead
Electronic Mail Distribution

Florida Power and Light Company
ATTN: Mr. Brian Stamp
Training Manager
Turkey Point Nuclear Plant
9760 SW 344th Street
Homestead, FL 33035

Letter to Mano Nazar from Malcolm T. Widmann dated April 29, 2013

SUBJECT: TURKEY POINT NUCLEAR POWER PLANT – NRC OPERATOR LICENSE EXAMINATION REPORT 05000250/2013301 AND 05000251/2013301

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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.:	05000250/2013301, 05000251/2013301
Licensee:	Florida Power & Light Company (FP&L)
Facility:	Turkey Point Nuclear Plant, Units 3 & 4
Location:	9762 S. W. 344th Street Florida City, FL 33035
Dates:	Operating Test – March 4 – 11, 2013 Written Examination – March 15, 2013
Examiners:	Gerry Laska, Chief Examiner, Senior Operations Examiner Phil Capehart, Senior Operations Engineer Amanda Toth, Operations Engineer Newton Lacy, Operations Engineer (Training)
Approved by:	Malcolm T. Widmann, Chief Operations Branch 1 Division of Reactor Safety

SUMMARY OF FINDINGS

ER 05000250/2013301, 05000251/2013301, 03/4 – 11/ 2013; Turkey Point 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 Turkey Point Nuclear Plant staff developed both the operating tests and the written examination. The NRC developed the written examination outlines.

The NRC administered the operating tests during the period March 4 – 11, 2013. Members of the Turkey Point Nuclear Station training staff administered the written examination on March 15, 2013. Five Reactor Operator (RO) and four SRO applicants passed both the operating test and written examination. Four RO applicants and four SRO applicants were issued licenses commensurate with the level of examination administered. One RO applicant passed the operating test, but passed the written examination with an overall score between 80% and 82%. The one RO applicant was issued a letter stating that he passed the examination and issuance of his license has been delayed pending any written examination appeals that may impact the licensing decision for their application. One RO applicant passed the operating test, but failed the written examination.

There were three post-examination comments.

No findings were identified.

REPORT DETAILS

4. OTHER ACTIVITIES

4OA5 Operator Licensing Examinations

a. Inspection Scope

Members of the Turkey Point 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." One security event occurred when a procedure was left out after exam security was taken down. On 02/12/2013, the NRC exam team along with the Turkey Point training staff validated a scenario on the simulator. The next day, 02/13/2013, while validating another (different) scenario, a procedure normally used for boration and/or dilution was found on a shelf in the simulator. This procedure had been used on the previous day and had been marked up and signed. Exam security had been removed on 02/12/2013 to allow just in time (JIT) training for shift operations staff, allowing anyone to view the procedure. Examiners discussed the significance of the particular procedure that was left out. It was determined that this procedure was used in almost every training and exam scenario conducted at Turkey Point. The chief examiner discussed options with the Operation Branch Chief and it was decided that the procedure being left out did not compromise exam security. The licensee wrote AR01847933 to document the occurrence and help prevent reoccurrence.

The NRC examiners evaluated Six Reactor Operator (RO) and four Senior Reactor Operator (SRO) applicants using the guidelines contained in NUREG-1021. The examiners administered the operating tests during the period March 4 – 11, 2013. Members of the Turkey Point Nuclear Power Plant training staff administered the written examination on March 15, 2013. 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 Power 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.

Five RO applicants and four SRO applicants passed both the operating test and written examination. One RO applicant passed the operating test but did not pass the written examination. Four RO applicants and four SRO applicants were issued licenses. One

RO applicant passed the operating test, but passed the written examination with an overall score between 80 percent and 82 percent. The one RO applicant was issued a letter stating that they passed the examination and issuance of their license has been delayed pending any written examination appeals that may impact the licensing decision for their application.

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 March 16, 2015, in the ADAMS system (ADAMS Accession Numbers ML13113A151 and ML13113A157).

4OA6 Meetings, Including Exit

Exit Meeting Summary

On March 12, 2013, the NRC examination team discussed generic issues associated with the operating test with Mr. Michael Kiley, Site Vice President, and members of the Turkey Point 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

S. Bloom, Senior Reactor Operator
P. Czaya, Licensing Engineer
R. Hess, Assistant Operations Manager
M. Jones, Operations Director
M. Kiley, Site Vice President
S. Russ, Maintenance Training Supervisor
M. Similey, Initial Training Supervisor
B. Stamp, Training Manger
M. Wilson, Training Instructor

NRC personnel

M. Barillas, Turkey Point resident inspector

FACILITY POST-EXAMINATION COMMENTS AND NRC RESOLUTIONS

A complete text of the licensee's post examination comments can be found in ADAMS under Accession Number ML13113A145.

RO QUESTION # 8:

Comment: Question 8: This question requires the operator to determine the most effective method of reducing RCS pressure in mode 3 with the 3C RCP running. 3-NOP-041.02, Pressurizer Operation, does not allow the use of Auxiliary Spray with ***any*** RCPs running. FPL recommends accepting distracter B ONLY as the only correct answer.

QUESTION 8

Plant Conditions:

- Unit 3 is in Mode 3.
- Tavg at its no-load value.
- Reactor Coolant Pump 3C is operating with 3A and 3B are secured.

Which ONE of the following would be most effective at lowering PZR pressure?

A. Spray Valve PCV-3-455A Open
Spray Valve PCV-3-455B Open

B. Spray Valve PCV-3-455A Open
Spray Valve PCV-3-455B Closed

C. Spray Valve PCV-3-455A Closed
Spray Valve PCV-3-455B Open

D. Spray Valve PCV-3-455A Closed
Spray Valve PCV-3-455B Closed
Auxiliary Spray CV-3-311 Open

B is only correct Answer.

D is not allowed by procedure.

REVISION NO.: 2	PROCEDURE TITLE: PRESSURIZER OPERATION	PAGE: 34 of 87
PROCEDURE NO.: 3-NOP-041.02	TURKEY POINT UNIT 3	

5.0 INFREQUENT OPERATIONS

5.1 Pressurizer Auxiliary Spray Operations

1. **CHECK** CVCS normal Charging and Letdown in service.
2. **CHECK NO** RCPs running.
3. **CHECK** a Pressurizer steam bubble exists.

See Next Page

Question # 8 provides the operator with a scenario with RCP 3C in service, and asks which set of conditions would be the most effective at lowering PZR pressure.

Distracter A is incorrect, as opening PCV-3-455B, thereby short-cycling spray, thus making spray flow from PCV-3-455A ineffective.

Distracter B will provide effective spray as PCV-3-455A is open delivering full available spray flow, without short-cycling spray through PCV-3-455B.

Distracter C is incorrect, as the open spray valve is from the secured RCP, there will be no spray.

Distracter D would provide effective spray, however it is not allowed by plant procedures.

Recommend accept B as the only correct answer.

NRC DISCUSSION:

The initial conditions of the stem do state that RCP 3C is operating, and procedure 3-NOP-041.02, Pressurizer Operation, step 5.1.2 states: Check NO RCPs Running. With C RCP running, the auxiliary spray valve cannot be used. In light of this new information, it appears that answer D is incorrect, and answer B is the only correct answer.

NRC RESOLUTION:

The NRC accepts the licensee's comment and question 08 will be graded with only answer B being correct.

RO QUESTION # 34

Question 34: This question requires the candidate to identify the maximum allowable ICW flow rate to each CCW HX under ***normal conditions*** and to state the reason why. Distracters B and D properly identify the need to minimize long-term tube side erosion in the CCW HXs. Two maximum flow rates are specified in 3-NOP-019, Intake Cooling Water System, dependent on plant configuration, both of which are considered normal alignments. During operations with no other evolutions in progress for ICW, the maximum allowable flow rate is 10,000 gpm as specified by distracter B. The maximum allowable flow rate during basket strainer back flush is 12,850 gpm as specified by distracter D. Approved plant documentation identifies both of these system alignments as normal. Therefore distracter D is also correct as it describes the maximum allowable flow rate as 12,850 gpm. FPL recommends accepting both answers B and D as correct.

QUESTION 34

Plant conditions:

- Unit 3 is operating at 100% power.
- Three CCW Heat Exchangers are in service.

In accordance with 3-NOP-019, Intake Cooling Water System, under normal conditions which ONE of the following identifies the maximum allowable ICW flowrate to each CCW Heat Exchanger, AND the reason for this limit?

A. 10,000 gpm;
Prevent runout of the ICW pump.

B. 10,000 gpm;
Minimize long-term tube-side erosion.

C. 12,850 gpm;
Prevent runout of the ICW pump.

D. 12,850 gpm;
Minimize long-term tube-side erosion.

See Next Page

Question # 34 requires the candidate to identify the maximum allowable ICW flow rate to each CCW HX under ***normal conditions*** and why. Distracters B and D properly identify the need to minimize long-term tube side erosion. The second determination is the ***maximum*** flow rate.

There are two maximum flow rates, 10,000 gpm and 12,850 gpm.

As both distracters are correct values in accordance with 3-NOP-019, the student must discern which "normal" to use.

Either the "normal operation" within the context of 3-NOP-019 step 2.2.4.2:

2.2.4 CCW Heat Exchangers

1. ICW outlet temperature from CCW HXs should **NOT** exceed 120°F.

2. Maximum ICW flowrate to each CCW HX during normal operation should **NOT** exceed 10,000 gpm in order to minimize long term tube side erosion of the CCW HXs. The ICW flowrate for each CCW HX may be increased to 12,850 gpm for up to 72 hours period to accommodate HX or Basket Strainer cleanings.

-OR-

"Normal Operations" as defined by the Turkey Point Plant Radiological Emergency Plan:

Normal Plant Operations - Activities at the plant site associated with routine testing, maintenance, or equipment operations, in accordance with normal operating or administrative procedures. Entry into abnormal or emergency operating procedures, or deviation from normal security or radiological controls posture, is a departure from NORMAL PLANT OPERATIONS.

If a competent operator understands that the plant routinely backwashes basket strainers on a near-weekly basis, he should identify this as a normal evolution, and that under these conditions, the plant is allowed to raise ICW flow rate to the maximum flow rate to 12850 gpm.

Recommend accept B and D as correct answers.

NRC DISCUSSION:

The initial conditions of the stem do not state a backwash is in progress.
NUREG 1021 Revision 9, supplement 1, Appendix E, part B (7) states:

If you have any questions concerning the intent or the initial conditions of a question, do not hesitate to ask them before answering the question. Note that questions asked

during the examination are taken into consideration during the grading process and when reviewing applicant appeals. Ask questions of the NRC examiner or the designated facility instructor only. A dictionary is available if you need it.

When answering a question, do not make assumptions regarding conditions that are not specified in the question unless they occur as a consequence of other conditions that are stated in the question. For example, you should not assume that any alarm has activated unless the question so states or the alarm is expected to activate as a result of the conditions that are stated in the question. Similarly, you should assume that no operator actions have been taken, unless the stem of the question or the answer choices specifically state otherwise. Finally, answer all questions based on actual plant operation, procedures, and references. If you believe that the answer would be different based on simulator operation or training references, you should answer the question based on the actual plant.

If the applicant chose D as an answer, the applicant would have had to make an assumption that the basket strainer was being backwashed. This is not in accordance with the NUREG; therefore the comment will not be accepted.

NRC RESOLUTION:

The NRC does not accept the licensee's contention and question number 34 will be graded with B as the only correct answer.

Question 62: This question requires the candidate to verify RIL TS Limits and determine the required action for boration based on an event causing a Turbine Runback. The question did not provide distracters for required actions from 3-ONOP-089, Turbine Runback. Since the ONOP takes precedence over other ARP actions per 0-ADM-211, Emergency and Off-Normal Operating Procedure Usage, the operator would use the procedural guidance within 3-ONOP-089 to borate in 50 gallon increments, withdraw control rods, and clear the TS RIL issue. FPL recommends deleting question 62 from the exam.

QUESTION 62

Plant conditions:

- Unit 3 is at 100% power, all systems in normal alignments.
- A turbine runback occurs.
- The unit is stabilized at 82% power.
- Annunciator B 8/2, ROD BANK A/B/C/D EXTRA LO LIMIT is in alarm.
- Control Bank D indicates 130 steps.

Which ONE of the following correctly completes the statement below?

The technical specification LCO for Rod Insertion Limits ____(1)____ exceeded. The operator must immediately stop driving rods and ____(2)____.

A. (1) is
(2) commence emergency boration IAW 3-ONOP-46.1, Emergency Boration.

B. (1) is
(2) borate ≥ 16 gpm IAW 0-OP-046, CVCS - Boron Concentration Control.

C. (1) is NOT
(2) borate in 50 gallon increments IAW 0-OP-046, CVCS - Boron Concentration Control.

D. (1) is NOT
(2) borate ≥ 16 gpm IAW 3-OP-46, CVCS - Boron Concentration Control.

There are no correct Answers

REVISION NO.: 1	PROCEDURE TITLE: TURBINE RUNBACK	PAGE: 13 of 19
PROCEDURE NO.: 3-ONOP-089	TURKEY POINT UNIT 3	

STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
3.2	**Subsequent Actions (continued)**	
10.	**MONITOR** Annunciator B 8/2 ROD BANK A/B/C/D EXTRA LO LIMIT – CLEAR	**PERFORM** the following as necessary after the runback: A. WHEN turbine runback is complete, THEN **PLACE** control rods in Manual. B. **SET** boric acid totalizer to 50 gallons. C. **DETERMINE** boric acid flow rate as determined by the Unit Supervisor. D. **PLACE** the Reactor Makeup Selector Switch to BORATE. E. **PLACE** the RCS Makeup control Switch to START. F. **ADJUST** the setpoint on the Boric Acid Controller FC-3-113A to the desired flow rate as indicated on FR-3-113. G. **WITHDRAW** Control Rods to establish T_{avg}/T_{ref} ΔT up to +3°F T_{avg} GREATER THAN T_{ref} until Annunciator B 8/2 is CLEAR. H. **REPEAT** Section 3.2 Step 10 RNO steps until Annunciator B 8/2 is CLEAR.

Question 62 gives the event of a runback followed by Annunciator B 8/2 in alarm. Bank D rods past the Rod Insertion Limit would happen as a result of the runback. 3-ONOP-089, Turbine Runback, has Immediate Operator Actions and would be entered directly. During the subsequent actions, the RIL condition would be addressed in step 3.3.10. Per the rules of use specified in 0-ADM-211, the ARP actions would not be used since the operator is already in the correct procedure to address the RIL condition caused by the runback.

NRC DISCUSSION:

The initial conditions of the stem do state that a Runback is in progress, and 0-ADM-211 Emergency and Off-Normal Operating Procedure Usage, Section 5.2, Procedure Hierarchy step 5.2.3 states: Entry into ONOPs (AOPs) takes precedence over action specified in ARPs unless specifically exempted. With no exemptions listed in the ONOP or ARP, Therefore the actions of 3-ONOP-089, Turbine Runback, would take precedence over the actions of the ARP. The NRC agrees with the licensee that there is not a correct answer to question 62 as written.

NRC RESOLUTION:

The NRC accepts the licensee's comment and question 62 will be deleted from the exam.

SIMULATOR FIDELITY REPORT

Facility Licensee: Turkey Point Nuclear Power Plant

Facility Docket No.: 05000250/2013301 AND 05000251/2013301

Operating Test Administered: March 4 –11, 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:

Item	Description
Simulator RCS temperature dropped very quickly from 570 – 547 °F during an exam scenario	During an exam scenario RCS temperature dropped from 570 - 547°F very quickly. There was no apparent cause for the temperature reduction; it appeared the simulator was chronologically uncoupled. AR 01857943 was written to address this issue.
Simulator did not respond during the exam as it did during validation.	During an exam scenario an unexpected response was received when a dilution malfunction was inserted. This response was much different than the response received on validation week. AR 01857943 was written to address this issue.