

L-2011-535

Victor McCree
Regional Administrator, Region II
Attn: Bruno Caballero
U. S. Nuclear Regulatory Commission
Marquis One Tower
245 Peachtree Center Ave., NE Suite 1200
Atlanta, GA 30303-1257

Re: Turkey Point Units 3 and 4
Docket Nos. 50-250 and 50-251
FPL Comments for the 2011 Written NRC License Examination

The provisions of NUREG-1021, Operator Licensing Examiner Standards, Examiner Standards ES-402, Administering Initial Written Examinations, allow the opportunity for submittal of comments on the written portion of the License Examination to the NRC. This letter documents that Florida Power and Light (FPL) Company has no challenges related to the site-specific written examination administered at Turkey Point on December 14, 2011.

FPL has two comments regarding the 2011 NRC License Examination Answer Key. First, Question 61 used indicated S/G level. The initial effects of S/G level response to a MSIV closure on the Simulator are opposite for narrow and wide range S/G levels. The answer key was updated to accept both "A" (WR) and "D" (NR). Also, Question 80 response was incorrectly marked during review. The correct response to Question 80 is "A", instead of the presently marked response "C". This also has been update. The corrected Answer Key is attached.

Should there be any questions, please contact Mark Wilson at (305) 246-6900.

Sincerely,

Michael Kiley
Vice President
Turkey Point Nuclear Plant

Attachment

SM

cc: Chief, Operations Branch, Division of Reactor Safety, Region II, USNRC
Chief Examiner, Region II, USNRC
Senior Resident Inspector, USNRC, Turkey Point Plant
Document Control Desk, USNRC, Washington, D.C.

NRC LICENSE EXAM COMMENT SHEET

2011-302 TURKEY POINT INITIAL LICENSE OPERATOR EXAM – Proposed Changes

Test Item (Question #/ Scenario/JPM)	Issue	Recommendation	Reference	Comments
Question # 61	This question did not specify whether indicated S/G Level was Narrow or Wide Range S/G Level.	Recommend accepting two answers (A and D). A – based on Wide Range S/G Level. D – based on Narrow Range S/G Level.	Plant Simulator	The initial 3A S/G Narrow and Wide Range Level response was plotted after 3A S/G MSIV was closed.
Question # 80	The stem of the question asked for the required transition based on Subcooling < 50°F. The answer key is marked with loss of Pressurizer Pressure Control.	Recommend changing the answer key to match the stem and only accept distractor A.	3-EOP-E-3	The procedural flowpath at Step 21 where RCS Subcooling is checked has the RNO transition to 3-EOP-ECA-3.1.

Reviewed by:

[Signature]
Facility Author/Date

Approved by:

[Signature] 12/16/11
Facility Representative/Date

**Turkey Point Nuclear Plant 2011
Reactor Operator License Examination**

61.

Given the following conditions:

- Unit 4 is at 25% power with all systems in normal alignments.
- 4A Main Steam Isolation Valve closes on a spurious signal.

Assuming the reactor does NOT trip, which ONE of the following describes the INITIAL effect (1) on 4A S/G Indicated Level and (2) on the S/G Feedwater Regulating Valve (FRV) response for 4B and 4C S/Gs?

	<u>4A S/G Indicated Level</u>	<u>4B/4C FRV position</u>
A.	higher	open more
B.	higher	closed more
C.	lower	closed more
D.	lower	open more

Indicated does not differentiate between NR and WR S/G levels. Both A and D are correct

PRIMARY

SECONDARY

POWER

FSM

SUPPORT SYS

SODS

EMERG RESP

SOE GROUPS

UTILITIES

FOXSELECT

ALARMS

CHANGE ENV

PRINT

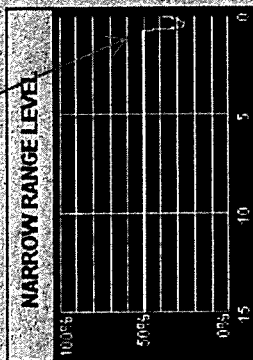
PREVIOUS

N

3 LINE

STEAM GENERATOR A

Narrow Range Level
initially drops



LAST 15 MINUTES

100

— *Journal of the American Medical Association*, 1977, 237: 1001-1002.

1740 307 12

7 (30)

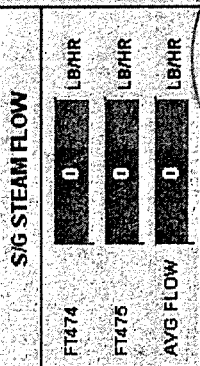
Figure 1. The effect of the concentration of the *Agrobacterium* suspension on the transformation efficiency of *Agrobacterium* strains.

MOTIFLOW

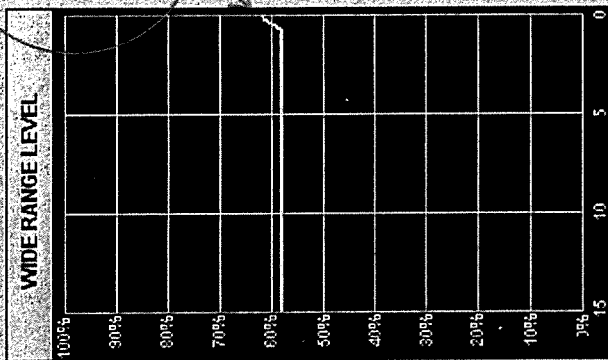
AVG FLOW 2707 GPM

DIFF PRESS 26.1 IN H₂O

AVG FW FLOW 1170112



Wide
Range
Level
Initially



15 MINUTES

519

100

10

3

**Turkey Point Nuclear Plant 2011
Senior Reactor Operator License Examination**

80.

Given the following:

- Unit 4 experienced a Steam Generator Tube Rupture (SGTR) from 100% power.
- Containment temperature on TE-4-6700, TE-4-6701, and TE-4-6702 is 135°F and rising.
- The operating crew is implementing 4-EOP-E-3, Steam Generator Tube Rupture.
- The crew stopped the RCS cooldown and verified the ruptured S/G pressure is increasing slowly.
- QSPDS CET Subcooling is 70°F.
- Instrument Air to Containment has been lost, and CANNOT be established.

Which ONE of the choices below completes the following statements?

In order to remain in 4-EOP-E-3, Steam Generator Tube Rupture, RCS subcooling is required to be greater than (1).

If below the required RCS Subcooling for 4-EOP-E-3, then transition to (2).

- A. (1) 50°F
(2) 4-EOP-ECA-3.1, SGTR with Loss of Reactor Coolant, Subcooled Recovery Desired
- B. (1) 100°F
(2) 4-EOP-ECA-3.1, SGTR with Loss of Reactor Coolant, Subcooled Recovery Desired
- C. (1) 50°F
(2) 4-EOP-ECA-3.3, SGTR without Pressurizer Pressure Control
- D. (1) 100°F
(2) 4-EOP-ECA-3.3, SGTR without Pressurizer Pressure Control

Only A is correct

Procedure No.: 4-EOP-E-3	Procedure Title: Steam Generator Tube Rupture	Page: 17 Approval Date: 1/10/07
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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
18	<p>Establish Charging Flow</p> <ul style="list-style-type: none"> a. Charging pumps - AT LEAST ONE RUNNING b. Check offsite power available c. Start one charging pump. d. Place RCS Makeup Control Switch in STOP e. Adjust speed controller as necessary to establish maximum charging flow from the running charging pump(s) f. Adjust Charging Flow to Regen Heat Exchanger, HCV-4-121, to maintain proper seal injection flow g. Verify charging pump suction auto transfers to RWST 	<ul style="list-style-type: none"> a. Perform the following: <ul style="list-style-type: none"> 1) <u>IF</u> CCW flow to RCP thermal barrier is lost, <u>THEN</u> go to Step 19. 2) Go to Step 18b. b. <u>IF</u> offsite power is <u>NOT</u> available, <u>THEN</u> check if diesel capacity is adequate to run one charging pump. <ul style="list-style-type: none"> 1) <u>IF</u> adequate diesel capacity is <u>NOT</u> available, <u>THEN</u> shed nonessential loads. Refer to ATTACHMENT 3 for component KW load rating.
19	<p>Check If RCS Cooldown Should Be Stopped</p> <ul style="list-style-type: none"> a. Check core exit TCs - LESS THAN REQUIRED TEMPERATURE FROM STEP 11 b. Stop RCS cooldown c. Maintain core exit TCs - LESS THAN REQUIRED TEMPERATURE FROM STEP 11 	<ul style="list-style-type: none"> a. <u>WHEN</u> core exit TCs are less than required temperature from Step 11, <u>THEN</u> go to Step 19b.
20	<p>Check Ruptured S/G(s) Pressure – STABLE OR INCREASING</p>	<p><u>IF</u> pressure continues to decrease to less than 250 psig above the pressure of the intact SG(s) used for cooldown, <u>THEN</u> go to 4-EOP-ECA-3.1, SGTR WITH LOSS OF REACTOR COOLANT-SUBCOOLED RECOVERY DESIRED, Step 1.</p>

Procedure No.: 4-EOP-E-3	Procedure Title: Steam Generator Tube Rupture	Page: 18 Approval Date: 1/10/07
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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
<div style="border: 1px solid black; padding: 5px; width: fit-content;"> Part 2 - Plausibility -No air with 70°F Subcooling </div>	<p>Part 2 - If below the required RCS Subcooling →</p> <p>21 Check RCS Subcooling Based On Core Exit TCs - GREATER THAN 50°F[230°F]</p> <p>↓</p> <p>22 Depressurize RCS To Minimize Break Flow And Refill PRZ</p> <p>a. Normal PRZ spray – AVAILABLE →</p> <p>b. Spray PRZ with maximum available spray until any of the following conditions satisfied – Use ATTACHMENT 6 as reference</p> <p style="margin-left: 40px;">* Both of the following</p> <p style="margin-left: 80px;">1) RCS pressure - LESS THAN RUPTURED S/G(s) PRESSURE</p> <p style="margin-left: 80px;">2) PRZ level - GREATER THAN 17%[50%]</p> <p style="text-align: center;"><u>OR</u></p> <p style="margin-left: 40px;">* PRZ level - GREATER THAN 71%[50%]</p> <p style="text-align: center;"><u>OR</u></p> <p style="margin-left: 40px;">* RCS subcooling based on core exit TCs - LESS THAN 30°F[210°F]</p> <p>c. Stop depressurization by closing spray valve(s):</p> <p style="margin-left: 40px;">* Close normal spray valves</p> <p style="text-align: center;"><u>OR</u></p> <p style="margin-left: 40px;">* Close Auxiliary Spray Valve, CV-4-311</p> <p>d. Observe CAUTION prior to Step 25 <u>AND</u> go to Step 25</p>	<p>Go to 4-EOP-ECA-3.1, SGTR WITH LOSS OF REACTOR COOLANT-SUBCOOLED RECOVERY DESIRED, Step 1.</p> <p>a. Observe CAUTIONS and NOTE prior to Step 23 <u>AND</u> go to Step 23.</p> <p>* Stop RCP(s) as necessary to stop spray flow.</p> <p>* Perform the following:</p> <p style="margin-left: 40px;">a) Reduce charging pump speed to minimum.</p> <p style="margin-left: 40px;">b) Close Charging Flow To Regen Heat Exchanger, HCV-4-121.</p> <p style="margin-left: 40px;">c) Adjust charging pump speed to maintain seal injection flow.</p>

Procedure No.: 4-EOP-E-3	Procedure Title: Steam Generator Tube Rupture	Page: 19
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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
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CAUTIONS

- *If a PRZ PORV is used to depressurize the RCS, the PRT rupture disk may rupture. This may result in abnormal containment conditions.*
- *Cycling of the PRZ PORV shall be minimized.*

NOTE

If RCPs are NOT running, the upper head region may void during RCS depressurization. This will result in a rapidly increasing PRZ level.

23

Depressurize RCS Using PRZ PORV To Minimize Break Flow And Refill PRZ

a. PRZ PORV - AT LEAST ONE AVAILABLE

a. Establish auxiliary spray using ATTACHMENT 4 and return to Step 22b.

1) **IF** auxiliary spray can **NOT** be established, **THEN** go to 4-EOP-ECA-3.3, SGTR WITHOUT PRESSURIZER PRESSURE CONTROL, Step 1.

b. Open one PRZ PORV until any of the following conditions satisfied – Use ATTACHMENT 6 as reference

* Both of the following

- 1) RCS pressure - LESS THAN RUPTURED S/G(s) PRESSURE
- 2) PRZ level - GREATER THAN 17%[50%]

OR

* PRZ level - GREATER THAN 71%[50%]

OR

* RCS subcooling based on core exit TCs - LESS THAN 30°F[210°F]

c. Stop depressurization by closing PRZ PORV

c. Close PORV block valve.

ATTACHMENT TO L-2011-535

Turkey Point

Questions 1-75 RO

Questions 76-100 SRO only

Examination Answer Key December 14, 2011

1	D	26	B	51	D	76	B
2	A	27	A	52	A	77	A
3	B	28	B	53	B	78	A
4	D	29	B	54	A	79	C
5	A	30	D	55	B	80	A
6	A	31	D	56	C	81	B
7	B	32	B	57	C	82	A
8	C	33	C	58	C	83	A
9	C	34	C	59	B	84	B
10	C	35	B	60	A	85	B
11	A	36	C	61	A/D	86	D
12	D	37	A	62	C	87	A
13	D	38	B	63	A	88	D
14	D	39	C	64	D	89	D
15	C	40	B	65	C	90	D
16	C	41	B	66	A	91	C
17	B	42	C	67	C	92	A
18	B	43	A	68	C	93	D
19	C	44	C	69	C	94	B
20	A	45	C	70	D	95	C
21	B	46	D	71	C	96	D
22	D	47	D	72	D	97	B
23	D	48	D	73	A	98	C
24	C	49	D	74	D	99	D
25	C	50	A	75	D	100	C