February 15, 2011

ULNRC 5767

Mr. Elmo E. Collins, Jr.
Regional Administrator
U.S. Nuclear Regulatory Commission
Region IV
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Ladies and Gentlemen:

INITIAL LICENSE EXAM

Callaway Plant wishes to challenge two questions on the Initial Licensing Exam administered on February 4, 2011.

- Question 64: Accept 'A' and 'B' as correct answers.
- Question 80: Accept 'A' and 'C' as correct answers.

Please see attached sheets for the justification of the above.

If you have any questions, please contact Ricky A. Tiefenauer at 314/803-3939.

Respectfully,

David G. Lantz
Assistant Manager,
Operations Training

DGL/mrw
Enclosures

NRC Site-Specific Written Examination
Callaway Plant
Reactor Operator

Question 64

Given the following conditions:

- NB01 is on its alternate power source.
- Train A Essential Service Water Pump is running.
- Diesel Generator NE01 is unavailable
- NB01 is to be FAST TRANSFERRED back to its normal power source.

Which of the following would be an effect of this transfer?

A. Train A ESW Pump will continue to run.

B. Train A ESW Pump loses power during the transfer.

C. Train B ESW Pump will auto start.

D. Train B ESW Pump will align to the Containment Coolers.

Answer: B

Explanation:

A. Incorrect. There is a momentary loss of power to NB01.
B. Correct.
C. Incorrect. An undervoltage on NB01 AND a low flow to the containment coolers would be a start signal for Trn B.
D. Incorrect. This occurs for a SIS, but not for a loss of power.

Technical References: Systems Essential Service Water and OTN-NB-0001A Addendum 004, NB01 Fast Transfer to Normal or Alternate
References to be provided to applicants during exam: None
Learning Objective: SA-08, Obj D

Question Source: (note changes; attach parent)	Bank #	
	Modified Bank #	
	New	X
Question History:	Last NRC Exam	No
Question Cognitive Level:	Memory/Fundamental	
	Comprehensive/Analysis	X
10CFR Part 55 Content:	55.41.7	

Question 64:

'A' is also a correct answer.

Per OTN-NB-0001A Addendum 0004, NB01 Fast Transfer to Normal or Alternate, Load Sequencer Panel NF039A is turned off in step 5.2.5 prior to the transfer. Turning off NF039A will result in no undervoltage load shed occurring on NB01. With no load shed, the breaker for the 'A' ESW Pump will remain closed and the pump will continue to run. This event was verified on the Callaway Plant Desktop simulator 2/5/2011.

Ref: OTN-NB-0001A, Addendum 0004, NB01 Fast Transfer to Normal or Alternate

NRC Site-Specific Written Examination
Callaway Plant
Senior Reactor Operator

Examination Outline Cross-Reference
Ability to determine and interpret the following as they apply to the Loss of DC Power: That a loss of DC power has occurred; verification that substitute power sources have come on line.

Level	SRO
Tier #	1
Group #	1
K/A #	058 AA2.01
Rating	4.1

Question #80

Given the following conditions:

- The plant is in Mode 3
- The following alarm is received in the control room:
  - 25C, NK01 TROUBLE
- NK01 Voltage indicates 120 VDC and lowering slowly.
- Battery NK11 indicates 220 amps Discharge
- The following alarms are displayed on NK01:
  - 2B, CHARGER FAILURE
  - 4B, CHARGER DC BREAKER OPEN
  - 6A, CHARGER DC UNDERVOLTAGE

Which ONE (1) of the following describes the operability of the DC Distribution System, and the action required?

A. Declare Bus NK01 INOPERABLE because there is no Battery Charger connected. Enter OTO-NK-00002, LOSS OF VITAL 125 VDC BUS, to align an operable battery charger to Bus NK01.

B. Bus NK01 remains OPERABLE because bus remains energized. Enter OTO-NK-00002, LOSS OF VITAL 125 VDC BUS, to align an operable battery charger to Bus NK01.

C. Declare Bus NK01 INOPERABLE because there is no Battery Charger connected. Align an operable Battery Charger to Bus NK01 in accordance with alarm response procedures and OTN-NK-00001, CLASS 1E 125VDC ELECTRICAL SYSTEM.

D. Bus NK01 remains OPERABLE because bus remains energized. Align an operable Battery Charger to Bus NK01 in accordance with alarm response procedures and OTN-NK-00001, CLASS 1E 125VDC ELECTRICAL SYSTEM.

Answer: C

Explanation:
From TSB 3.8.4, NK01 is OPERABLE with: Bus NK01 energized from Battery NK11 and Charger

NK21 or Swing Charger NK25 (powered from AC Load Center NG01).

On a NK01 TROUBLE alarm with NK01 still energized from battery, Annunciator Response Procedure 25C directs operator to OTO-NK-00001, which in turn directs operator to OTN-NK-00001 to align NK01 to Swing Charger NK25. The status of the battery determines which off-normal procedure is entered.

A. Incorrect. First half is correct, but OTO-NK-00002 would not be used because the NK Bus has not been lost yet, as it is still powered from battery NK11.
B. Incorrect. NK01 requires both a battery AND a battery charger aligned to it to be declared OPERABLE.
C. Correct.
D. Incorrect. Procedure is correct, but NK01 requires both a battery AND a battery charger aligned to it to be declared OPERABLE.

Technical References: OTO-NK-00001, OTN-NK-00001, TSB 3.8.4
References to be provided to applicants during exam: None
Learning Objective: T61.003B.6 LP-26, Obj C
T61.0110.6, LP-6, Obj G

Question Source: (note changes; attach parent)	Bank # Modified Bank # New	WC 2009 #78
Question History:	Last NRC Exam	No
Question Cognitive Level:	Memory/Fundamental Comprehensive/Analysis	X
10CFR Part 55 Content:	55.43.1/.5	

Question 80:

'A' is also a correct answer.

Annunciator 25C, NK01 TROUBLE, is listed as a Symptom or Entry Condition for OTO-NK-00002, Loss of Vital 125 VDC Bus. Per step 4.3.3 of ODP-ZZ-00025, EOP/OTO User's Guide, entry into OTOs take precedence over action specified in OTAs. The crew could use this procedure to diagnose a problem with the NK bus due to 25C annunciator being lit. During step 2 of OTO-NK-00002 they would go to the response not obtained column and check voltage on the NK bus. At that time the crew would transition to OTO-NK-00001, Failure of NK Battery Charger.

Ref: OTO-NK-00002, Loss of Vital 125 VDC Bus.
OTO-NK-00001, Failure of NK Battery Charger.
OTA-RK-00016, Addendum 25C, NK01 Trouble.
ODP-ZZ-00025, EOP/OTO User's Guide.

Attachment 6

Post-Examination Test Item Analysis

Sheet 1 of 2

Lesson Plan / Course: _____

Examination No. / Title: 2011 NAC EXAM

Check the results of the examination:

- ☐ Small class (≤ 6): Questions were missed by more than 50% of the class. Analysis is required for these questions.
- ☒ Large class (>6): Questions were missed by more than 5/30% of the class. Analysis is required for these questions.
- ☐ Analysis of questions requested by individual.
- ☐ None of the above apply and no analysis is required for this examination.

If a Test Item Analysis is to be performed, document the question number on the Question Analysis Worksheet and review each using the following guidelines. Record the results on the worksheet.

1. Review each question to ensure it is worded clearly and is not ambiguous. Ensure that it is properly constructed.
2. Review each question to ensure that it ties properly to the learning objectives' condition, performance and standard.
3. Review each question to ensure that it is technically accurate.
4. Review each question to ensure that adequate material was presented to allow for achievement of the associated learning objective.
5. Document Enhancement/CARS/TRRQ number if lesson plan requires changes or additions.

Determine if action is required for problem questions (e.g. delete from examination bank, revise question, revise lesson plan, etc.) When action is required, ensure Vision is updated.

Completed by: [signature] 66379	Date: 2-3-11
Answer Key Change/ Examination Re-grade Authorized by: _____ Group Lead	
Comments	

Attachment 6 (Cont'd.)

Sheet 2 of 2

QUESTION ANALYSIS WORKSHEET

Question Number	Construction OK? (Y-N)	Objective Based? (Y-N)	Technically Accurate? (Y-N)	LP Content Acceptable? (Y-N)	LP Change needed? (Y-N)	Enhancement/ Cars Number
R018	Y	Y	Y	Y	N	K
R020	Y	Y	Y	Y	N	K
R029	Y	Y	Y	Y	N	K
R037	Y	Y	Y	Y	N	K
R051	Y	N	Y	N	Y	T
R054	Y	Y	Y	Y	N	K
~~R064~~	~~Y~~	~~Y~~	~~Y~~	~~N~~	~~Y~~	~~K~~ TJC 2/16/11
R067	Y	Y	Y	N	N	T/K
R069	Y	Y	Y	Y	N	K
R070	Y	Y	Y	Y	N	K
R072	Y	Y	Y	Y	N	K
SR01/76	Y	Y	Y	Y	N	K
SR02/77	Y	Y	Y	Y	N	K
~~SR05/80~~	~~Y~~	~~Y~~	~~Y~~	~~Y~~	~~N~~	~~K~~ TJC 2/16/11
SR08/83	Y	Y	Y	Y	N	K
SR21/92	Y	Y	Y	Y	N	K
SR22/97	Y	Y	Y	Y	N	K