

## Summary of Licensee-Requested Changes to NRC-Authored Dresden 2013 Written Exam

<u>Question</u>	<u>Comment Incorporated</u>
2	Changed distractors, Added references to T2 and T21
3	Replaced from Bank. Not operationally valid and did not meet K/A.
6	Changed procedure ref in stem, added ONLY to distractors.
7	Question was rewritten.
8	Changed valve from 2301-31 (that fails closed) to 2301-28 that fails open. More operationally relevant
9	Replaced question from bank since original K/A had no logical memory tie to the licensee's computer alarm system. New K/A was picked.
10	Changed distractor D to make it more in line with other distractors.
11	Changed DW pressure from 1.22 to 1.21 to make the math work out. Added the correct numerical designators for drywell spray valves.
13	Added 'be required to use per the DAN' to the stem. Capitalized "REQUIRED."
14	Changed distractor a. added 'Electromatic' to be more specific. Replaced normally" with "as-designed" for distractors C & D.
15	added 'torus narrow range' to stem and broke (a) distractor in two to make two distractors. Added 2 <sup>nd</sup> distractor to (d) distractor.
16	Added RPV pressure attribute to distractors to make them incorrect.
18	Added "are expected to occur" to stem.
19	Changed last part of question stem and changed all distractors to make question correct. Changed 'solenoid' to 'pilot manifold' valves for distractors B & D.
20	Added that Transformers 32 and 86 had tap changers in Manual so the question was correct. Changed tap setting from 325 to 335 since 325 may be too low for tap changes to be effective.
21	Added 'NO operator actions were taken' to the stem.
22	Added that SDC flow was not a full flow so distractor (a) was correct.
25	Changed DEOP 500 to correct version (DEOP 400-05).
26	Changed distractors. Confusion between noble gases and halogen gases. Changed c. distractor to make it more plausible.
27	Made the question unit-specific since only that units fans will trip. Doesn't trip all RB vent fans!
28	Added "the diesel start" to distractors C & D. Bulletized distractors to make it easier to read.
29	Licensee believed this question duplicated question #22. I decided to let both questions remain unchanged. Changed level attribute in C distractor to make incorrect.
30	Changed pressure to 1060 psig, added eletromatic relief valve in place of relief valve.
31	"D" distractor changed to "C." "C" distractor removed "manually starts on low IC shell side water level."

- 33 Changed question to delete determination of operability since this is an RO question, not an SRO question.
- 34 Changed plant conditions in stem since plant procedures allow deenergizing both RPS buses which will produce a reactor scram condition. Changed wording in stem to make it easier to read.
- 36 Changed distractor 'C' from 300 cps to 320 cps since range for setting is 273 cps to 310 cps.
- 39 Changed sensor and trip relays to logic relays since this is more operationally valid. Operators see logic relay outputs, they can't see sensor and trip relay states. Changed correct answer also. For Group 4 PCIS, this question is incorrect! Specified PCIS Groups 1 & 3 in stem so answer is correct.
- 40 Replaced question from Bank.
- 41 Added FWLC is in Master Auto since this could change the answer.
- 42 Bank question incorrect since SGBT was modified. Replaced question with new question.
- 43 Changed "EDG tripped" to "EDG output breaker tripped."
- 44 There were two correct answers for safety-related system. Changed question to nonsafety-related question. Changed distractors. Added procedure & title to stem. Capitalized NON-SAFETY.
- 46 Changed 5<sup>th</sup> bullet, added 'a degraded voltage condition'
- 48 Deleted reference to bus and added 2A-1 distribution panel to make fault local.
- 49 Due to an ECCS actuation, no correct answers. I changed distractor (d) to read, 'no loads trip.' Changed stem for partial ground causing 3700 VAC on bus and added 'degraded' to stem. Changed C distractor to all loads trip.
- 52 Based on station comments, added correct distractor c.
- 53 Second bullet changed from AUTO to MANUAL.
- 54 Distractor B changed to make it incorrect. Deleted references to rods scrambling. Now applicant to decide between charging header flow and accumulator flow. Added post-accident actions to prevent overfill condition. If applicant knows what these actions are, applicant would know that there is no flow to the accumulators.
- 55 Based on station comment (incorrect) , added that plant was at the point of adding heat when the Doppler coefficient would be less effective.
- 58 RWCU was not allowed to operate per station procedures with the existing plant conditions. I changed plant conditions such that plant pressure was >90 psig to allow system operation per procedures. No indication for FCV 2-1220 in CR. Changed 2<sup>nd</sup> paragraph to have EO verify valve position closed.
- 59 Changed "Powerplex" to "WCMS" to reflect change to plant.
- 61 Changed deenergized bus from Bus 23 to Bus 23-1.
- 62 Changed power level from 22% to 30% based on comments from QNE.
- 65 Replaced Q65 from exam bank.
- 67 Changed stem to read better.
- 68 Replaced question.

69 Replaced question with a circuit in lieu of a component to increase level of difficulty.

70 Moved “unidentified” from distractors to stem. Changed from Mode 3 to Mode 2 to Mode 2 to Mode 1. Added ONLY to distractors ‘A’ and ‘B.’

71 Changed ‘parameters’ to ‘Safety Limits’ to stem.

74 Changed distractor B to correct entry based on DGP 02-03 conditions for >02 rods not fully inserted.

75 Changed a(2) distractor since concern is spurious hot shorts, not preserving battery life!

76 Changed stem and ‘D’ distractor to insert CRAM rods in lieu of lowering recirc pump speed.

77 Removed SBLC injecting bullet since conditions do not require it, changed stem.

78 Changed distractors to allow for 1 SRO to approve actions for 50.54X, not 2 SRO’s!

79 Changed initial conditions: Drywell pressure and LPCI pumps running but NOT injecting. Changed torus bottom pressure from 9.8 psig to 10.2 psig since we were reading Graph W incorrectly in EOPs.

80 Changed steam pressure cycling from 1250 to 1200 psi, added “between.”

82 Eliminated reference to Effluents report (item iii). Added “over a 1 hour period.” Changed tritium to H-3 in stem. Changed .07 milliCi to 70 uci as used in chemistry reports at station.

83 Deleted “D” distractor and added “B” distractor. Added ‘after a crud burst’ to stem.

84 Added references (several electrical drawings) needed to answer question.

85 In MODE 5, NOT MODE 3! Changed ‘fault’ to ‘trouble light.’ Reworded stem, added additional annunciator for conditions. Must have CRD w/d for DOA to be applicable.

86 Replaced question since subsections of procedures are not required to be known from memory.

88 Added Tech Spec as a reference to SRO applicants to answer question. Added ‘as-found’ to stem. Reworded distractors ‘C’ & ‘D.’

89 Added which specific fuse blew. Added an electrical drawings as references.

90 Added “FIRST” to stem.

91 Added ‘no rod motion observed’ to second bullet to prevent scrambling the reactor based on >3 rods drifting as a possible correct answer.

92 Modified question to incorporate DOA 5600-02 requirements to trip turbine at 10 mils. Removed ‘manually trip turbine’ to ‘verify automatic turbine trip’ for ‘C’ distractor. Removed ‘local operator’ and added ‘NSO’ since no vibration readings locally, all in CR.

93 Added reference: supplied SRO applicants with TRM 3.7.i and 3.7.j.

94 Added operator’s ages. Also need to provide RP-AA-203 since not done from memory. Added bullet for SAE declared & ‘emergent task’ to stem to ensure applicants knew that emergency existed and that PSE’s were NOT applicable.

- 95 Added "Unit 2 in Mode 1."
- 96 Max safe values not committed to memory. So provided additional reference: DEOP 300-01 with initial conditions removed. Changed distractor C-2 so reason duplicates what is in EPG pg B.8-14. Changed stem such that both HPCI steam admission valve stick open, not just the HPCI 5 valve!
- 97 Added EAL Charts as a reference. Removed "FED" replaced with fuel cladding failure. Added RPV level <-184" for potential loss of 3<sup>rd</sup> barrier for PARs to be applicable.