

The JPM comments were resolved during the validation week.

The Scenarios were accepted as submitted with only minor changes made during the validation week for ease of administration.

Original exam outlines were accepted as submitted.

## OPERATING TEST COMMENTS

- 1 JPM S-N-d, if following the low suction on the "A" pump we CUE the operator to use the "C" pump the JPM will not be alternate path. We need a procedure driven alternative.
- 2 JPM S-N-g, when the candidate recognizes that the SRM is stuck we need to allow him to recommend an action not CUE the correct action.

1. **JPM: A-N-1-R - VERIFY SBLC HEATER SURV.**
  - a. Marked up **DOS 1100-02** needed to fully evaluate – OV issue.
  - b. 2 critical steps only – Add reasons for corrections provided in JPM Standards.
2. **JPM: A-N-2-R - DETERMINE ISOLATION POINTS FOR CLEARANCE ORDER**
  - a. Marked up **M-15** needed to fully evaluate – OV issue.
  - b. Marked up **M-16** needed to fully evaluate – OV issue.
3. **JPM: A-N-3-R - PERFORM CCSW ACTIVITY CALCULATION**
  - a. **Key** needed to fully evaluate; was not provided – OV issue.
  - b. Is there an acceptable tolerance on the Dilution Flow?
  - c. Step 4 (“determines”) needs to be documented to be a critical step.
4. **JPM: A-N-4-R - DETERMINE ACTIONS FOR A FIRE**
  - a. No comments initially.
5. **JPM: A-N-1-S - REPORTABILITY DETERMINATION**
  - a. The acceptable time must be given as **0542** to show that the 8 hours was applied correctly to the event. Clarification or follow-up questions may be needed to obtain the fully correct response.
6. **JPM: A-N-2-S - REACTIVATION OF AN SRO LICENSE**
  - a. The cue should state that the reviewer “must note all discrepancies, as required,” to avoid having to prompt the applicant if only one problem is noted before considering the JPM completed.
7. **JPM: A-N-3-S - VERIFY REVERSAL OF EDG COOLING WATER FLOW**
  - a. For Step 2, it is step “**w**” where the incorrect verification is made, thus the “OR” (for step “**v**”) is not required.
8. **JPM: A-N-4-S - REVIEW CCSW ACTIVITY CALCULATION**
  - a. Include how Dilution Flow was determined (Show work - # of pumps, etc.).
  - b. Marked up procedure needed to fully evaluate – OV issue.
9. **JPM: A-N-5-S - DETERMINE AN EP PROTECTIVE ACTION RECOMMENDATION**
  - a. No comments initially.





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August 26, 2016

Mr. Bruce Palagi  
NRC Chief Examiner  
**Nuclear Regulatory Commission**  
REGION III  
2443 Warrenville Road, Suite 210  
Lisle, Illinois 60532-4352

Re: Dresden Nuclear Power Station  
2016-301 Initial License Written Examination

Dear Mr. Palagi,

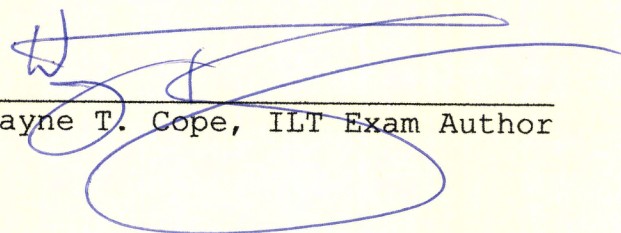
Dresden Station has no post-exam comments pertaining to the 2016-301 Initial License Examination.

Please consider this letter our formal request to withhold the release of the **2016-301 Initial License Written Examination** from ADAMS for a period of twenty-four (24) months.

Thank you for your assistance in this process.

Should you have any questions or require further information, please do not hesitate to contact me.

Sincerely,



Wayne T. Cope, ILT Exam Author



Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q=K/A	SRO Only				
1*	H	4											Y	N	N	S	
2*	H	4				X							Y	N	N	U S	Consider making the answers 2,4,6,8 hours. I believe that most people would automatically not pick 4.5 and 6.5 hours. Also 8 hours is a common coping time at many plants and 2 or 6 hours could be picked if someone thought that not being able to shed the reactor building loads shortened the 4 or 8 hour coping time.  RESOLUTION: The author explained that thirty minutes is the time in which load shed must take place, therefore someone could think the limit was 4 or 6 hours plus the time for load shed.
3#	F	4											Y	N	B	S	Difficulty from 1 to 2,3 or 4 On key change  RESOLUTION: The author explained that he call all memory questions difficulty 1 and all higher order questions difficulty 4 so he can do later computer searches.

Instructions

[Refer to Section D of ES-401 and Appendix B for additional information regarding each of the following concepts.]

1. Enter the level of knowledge (LOK) of each question as either (F)undamental or (H)igher cognitive level.
2. Enter the level of difficulty (LOD) of each question using a 1 – 5 (easy – difficult) rating scale (questions in the 2 – 4 range are acceptable).
3. Check the appropriate box if a psychometric flaw is identified:
  - The stem lacks sufficient focus to elicit the correct answer (e.g., unclear intent, more information is needed, or too much needless information).
  - The stem or distractors contain cues (i.e., clues, specific determiners, phrasing, length, etc).
  - The answer choices are a collection of unrelated true/false statements.
  - The distractors are not credible; single implausible distractors should be repaired, more than one is unacceptable.
  - One or more distractors is (are) partially correct (e.g., if the applicant can make unstated assumptions that are not contradicted by stem).
4. Check the appropriate box if a job content error is identified:
  - The question is not linked to the job requirements (i.e., the question has a valid K/A but, as written, is not operational in content).
  - The question requires the recall of knowledge that is too specific for the closed reference test mode (i.e., it is not required to be known from memory).
  - The question contains data with an unrealistic level of accuracy or inconsistent units (e.g., panel meter in percent with question in gallons).
  - The question requires reverse logic or application compared to the job requirements.
5. Check questions that are sampled for conformance with the approved K/A and those that are *designated SRO-only* (K/A and license level mismatches are unacceptable).
6. Enter question source: (B)ank, (M)odified, or (N)ew. Check that (M)odified questions meet criteria of ES-401 Section D.2.f.
7. Based on the reviewer's judgment, is the question as written (U)nsatisfactory (requiring repair or replacement), in need of (E)ditorial enhancement, or (S)atisfactory?
8. At a minimum, explain any "U" ratings (e.g., how the Appendix B psychometric attributes are not being met).

\* Initial 30 question review # KA review questions

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q=K/A	SRO Only			
4	H	2	X									Y	N	N	U S	There is NO correct answer to this question. The MCPR operating limit is set so that even a Turbine Trip <u>Without</u> Bypass will not cause a violation. In the old days I would have said the opening of the bypass valves provides peak pressure margin such that 1 relief valve failure will not lead to open of an un-piped safety valve.  RESOLUTION: The question was changed to say bypass valve opening provides margin to the MCPR limit.
5	FH	3										Y	N	B	S	I would say the amount of analysis needed to answer this question makes it more than a memory question.  RESOLUTION: Author agreed
6	F	4										Y	N	N	S	
7*	H	3										Y	N	N	S	
8	H	3										Y	N	N	E S	I reviewed DOA 1000-01 REV36 RESIDUAL HEAT REMOVAL ALTERNATIVES, perhaps the stem should be changed from "What action(s) is/are required to be taken to MAINTAIN the CURRENT RPV water temperature?" to "Which of the following actions could be taken to MAINTAIN the CURRENT RPV water temperature?" Because DOA 1000-01 offers a number of ways to control temperature but does not "require" the specific one that is answer "D".  RESOLUTION: The question was changed to ask for "correct" not "required" actions
9	H	4										Y	N	B	S	
10*	F	3										Y	N	B	S	
11*	F	2										Y	N	N	S	
12#	H	3										Y	N	B	S	
13#	H	3										Y	N	B	S	
14#	H	3										Y	N	B	S	
15#	F	2										Y	N	B	S	Consider removing the word "Pilot" from distractors "B" and "C".  RESOLUTION: The word "Pilot" was removed from distractors "B" and "C".



Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward	Q=K/A	SRO Only				
16#	F	3											Y	N	B	S	
17*	F	3											Y	N	N	S	
18	H	3											Y	N	N	S	
19	H	3											Y	?	B	?	Provide a RO learning objective that requires the knowledge/ability to answer this question. RESOLUTION: RO learning objective verified
20*	H	3											Y	?	N	?	Provide a RO learning objective that requires the knowledge/ability to answer this question. RESOLUTION: Question 20 was replaced
21	F	2						X					Y	N	N	U S	If a placard is permanently mounted on the control room panel with this information why would we expect an operator to know it from memory? RESOLUTION: RO learning objective requiring this knowledge was verified therefore the question was accepted.
22	H	3											Y	?	N	?	Provide a RO learning objective that requires the knowledge/ability to answer this question. RESOLUTION: RO learning objective verified
23*	H	3											Y	?	N	?	Provide a RO learning objective that requires the knowledge/ability to answer this question. RESOLUTION: RO learning objective verified
24	F	3											Y	N	N	S	
25	F	2											Y	N	N	S	
26*	H	2											Y	N	B	S	
27*	H	3											Y	N	N	S	
28*	F	3											Y	N	N	S	

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia #/units	Backward	Q=K/A	SRO Only					
29*	H	2											Y	N	N	S	
30*	H	2											Y	N	N	S	
31	H	2											Y	N	N	U S	I believe you need Rx pressure not Drywell pressure to answer this question. (see Q#3) RESOLUTION: It was explained that the bases for using Drywell pressure was that it is a lower limit below which liquid must be being released from relief valves.
32	F*	2											Y	N	N	S	
33	F	3											Y	N	B	S	
34	F*	3											Y	N	B	S	



Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward	Q=K/A	SRO Only			
35	F	2										Y	N	N	S	
36	F	3										Y	N	N	S	
37	F	2										Y	N	N	S	
38	F	3										Y	N	N	S	
39	F	3										Y	N	N	S	
40	F	4										Y	N	N	S	
41	F	3										Y	N	B	S	
42	H	3										Y	N	B	S	
43	F	3										Y	N	N	S	
44	HF	2										Y	N	N	S	I would call a memory question not higher order RESOLUTION: Author agreed
45	H	3										Y	N	N	S	
46	F	2										Y	N	N	S	
47	H*	3										Y	N	N	S	
48	H*	3										Y	N	N	S	
49	H*	3										Y	N	B	E S	Change stem from "Unit 2 was operating at rated power..." to Units 2 and 3 were operating at rated power..." The power level for Unit 3 should be provided because that unit is mentioned in the answer. RESOLUTION: Change made.
50	H	3										Y	N	N	S	
51	H	3										Y	N	N	S	
52	H	3										Y	N	N	S	
53	H	3										Y	N	N	S	

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward	Q=K/A	SRO Only			
54	H	3										Y	N	N	S	
55	H	3										Y	N	N	E S	Add to the stem that no operator action has taken place, because of the time period a candidate could believe an operator would have taken action.  RESOLUTION: Change made.
56#	H	3										Y	N	N	S	
57#	H	3										Y	N	B	S	
58#	H	3										Y	N	N	S	
59#	H	3										N	N	B	U S	A loss of control signal is not a "change in main steam flow" ask about the opening or closing of a bypass, relief, control valve to match the KA.  RESOLUTION: A new KA was selected and question written for it.
60#	F	3										Y	N	B	S	
61*	F	3										Y	N	N	S	
62	H	3										Y	N	N	E S	Add to the stem that the operator has taken all his immediate actions.  Change "Which of the statements below demonstrates the REQUIRED verbal report..." to "Which of the statements below is a correct verbal report..."
63	H	3										Y	N	N	S	
64#	F	3										Y	N	B	S	
65#	F	3										Y	N	B	S	
66#	H	3										Y	N	N	S	
67#	F	3										Y	N	B	S	
68#	H	4										Y	N	N	S	
69#	F	4										Y	N	B	S	



Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q=K/A	SRO Only				
70#	F	3											Y	N	N	S	
71	H	3											Y	N	N	S	
72	H	3											Y	N	N	S	
73*	H	3											Y	N	B	S	
74*	F	3											Y	N	N	S	
75*	H	3											Y	N	N	E S	Change "(2) lowers" in distractors A. and C. to "(2) stops". With MO 2-205-24 closed there would be no flow.  RESOLUTION: Change "(2) lowers" in distractors A. and C. to "(2) is secured".
76	H F	2	X										Y	Y	N	E	First, if this was a memory level question, why are references needed? It also seems that The first action required would be to refer to DEOP 100, so it could be argued that there is no correct answer. Then, recognizing entry level conditions (per the K/A) is <u>not</u> SRO only. Finally, TS 3.8.7 is attached to this question – why?  RESOLUTION: LOK = F and distractors refer to procedures.
77	H#	3											Y	Y	B	S	
78	H	3					X						Y	Y	M	U E	Per the key, entering 4400-01 is also needed, so answer "C" is <u>not</u> fully correct. <u>NOTE</u> : This is a "2X2" Question where half is SRO only and a previous NRC exam question (2009).  RESOLUTION: Procedure 4400-01 included in stem.
79	H#	3				?							Y	Y	N	U E	The correct answer is based on system (RO) knowledge, and does not involve procedure selection. Also, there is no evidence that U1 components are typically used based on the referenced DAN, so is "B" plausible?  RESOLUTION: Explained at OV - distractors refer to procedures.
80	H#	3				X							Y	Y	N	E	Distractors "C" and "D" are incorrect for the same reason. One of these should be replaced with another plausible choice.  RESOLUTION :Enhanced distractors and included procedure references.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only				
81*	H	2				X							Y	Y	N	E	<p>DSSP 0010-01 is a provided reference which requires selection of another DSSP, so distractor "D" is implausible and should be replaced. Also, since DSSP 0010-01 may be part of all the plausible answers, it should be brought up into the stem.</p> <p>RESOLUTION: Entry into DSSP 0010-01 included in all distractors and distractors enhanced to eliminate the implausible distractor as discussed at OV.</p>
82#	F	2											Y	Y	B	S	<p><u>NOTE:</u> This is a "2X2" Question where half is SRO only and a past NRC Exam question (ILT 11-1).</p>



Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward	Q=K/A	SRO Only				
83*	H	2	X										Y	Y	B	E	<p><u>NOTE:</u> This is a "2X2" Question where half is SRO only and a past NRC Exam question (2010). As stated in the key, the entry conditions for DOA 0600-01 have not yet been met since no annunciator has occurred. The stem needs to be reworded to avoid giving misinformation, and also care taken so the entry condition remains NOT met so that this question remains SRO-only.</p> <p><u>RESOLUTION:</u> As agreed at OV, annunciator 902-5 F-8 RPV LVL LO in alarm was added to the stem.</p>
84*	H	2											Y	Y	B	S	<p><u>NOTE:</u> This is a past NRC Exam question (QC ILT 2012).</p>
85	H	3											Y	Y	N	?	<p>It does not appear that the 22.5 SCRAM contingency would be a <u>requirement</u>, since the procedure step says "consider." The stem should be clarified so this can't be challenged. Explain how annunciators are being prioritized per K/A.</p> <p><u>RESOLUTION:</u> Clarified REQUIREMENT in stem.</p>
86	H	2				X							Y	Y	N	E	<p>Distractor "D" should be revised since it is implausible to have both Divisions of LPCI operable with the given valve found closed.</p> <p><u>RESOLUTION:</u> Discussed at OV - SAT</p>
87	H	4 2				X							Y	Y	N	U	<p>TS 3.3.5.1 is a provided reference for this question, and two distractors are eliminated by directly looking them up (I.E. Division 1 is operable). This results in a low level of difficulty for this question because the failure is specifically described on page 3.3.5.1-13, and points to Condition G. Of the 2 remaining choices, neither HPCI nor IC are indicated to be inoperable, which eliminates the 96 hour distractor, leaving only the correct answer.</p> <p><u>RESOLUTION:</u> Discussed at OV - SAT</p>
88#	F	2											Y	Y	B	S	<p><u>NOTE:</u> This is a past NRC Exam question (2007, 2008 Cert).</p>
89#	H	3											Y	Y	B	S	<p><u>NOTE:</u> This is a past NRC Exam question (2010).</p>
90#	H	2											Y	Y	N	S	
91#	H	3											Y	Y	N	S	
92#	H	3											Y	Y	B	S	<p><u>NOTE:</u> This is a past NRC Exam question (2008).</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward	Q=K/A	SRO Only				
93*	F	4 2											Y	Y	B	? S	<b>NOTE:</b> This is a past NRC Exam question (2008, 2003 Cert.). This question is described as LOD=1 per information sheet. (see Q#3) <b>RESOLUTION:</b> Discussed at OV - SAT
94*	F	3											Y	Y	N	S	
95#	H	3											Y	Y	B	E	<b>NOTE:</b> This is a past NRC Exam question (2009, 2013 Cert.) and a "2X2" question. Consider a wording change to: "when IC will become inoperable and the basis." <b>RESOLUTION:</b> Comment incorporated.
96#	H	3											Y	Y	B	E	<b>NOTE:</b> This is a past NRC Exam question (2012). What exactly is SRO criteria #9 per the question pedigree? (Spell this out). <b>RESOLUTION:</b> Comment incorporated for SRO criteria #7 .
97*	F	2											Y	Y	N	E	What exactly is SRO criteria #3 per the question pedigree? (Spell this out). <b>RESOLUTION:</b> Comment incorporated.
98#	H	2				X							Y	Y	N	E	Since the provided reference does not have applicable criteria, it is implausible to declare a General Emergency in Hot conditions. Also, why is DEOP 200-1 a Required Reference? (If provided with its entry conditions, what is the impact on Q#80?) <b>RESOLUTION:</b> "If any" removed from stem as agreed at OV.
99*	H	1				X							Y	Y	N	U E	With very few conditions and evaluations to make, this is effectively a DLU question, matching the given conditions to the provided reference, and arriving at the only plausible distractor (without any release or dose projections, both sheltering choices can't be reached, and with the given wind direction, "D" is not plausible either) <b>RESOLUTION:</b> Added Dose Rates as agreed at OV.
100#	H	2				X							Y	Y	B	E	DEOP 100 was provided for Qs# 76 & 80, and is available for this question, as well as DEOP 200-1 from Q#80; thus, distractors can be eliminated with references that are available (Required References in the Answer Key should reflect this). In addition distractor "C" is implausible for given conditions – why would this ever need to be done? <b>RESOLUTION:</b> References added to distractors and answer key as agreed at OV. No additional changes required.