

**NRC COMMENTS**

**TO INITIAL SUBMITTAL OF WRITTEN EXAM ON ES-401-9**

**AND INITIAL SUBMITTAL OF OPERATING TEST**

**FOR THE DAVIS-BESSE INITIAL EXAMINATION - MARCH 2002**

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws					5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q=K/A	SRO Only			
2B	H														S	M
4B	H														S	M
13B	HF														S	B NRC: Memory level of knowledge. Licensee: Agree.
19B	F														S	M
22B	H														S	B

Instructions

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

- Enter the level of knowledge (LOK) of each question as either (F)undamental or (H)igher cognitive level.
- 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).
- 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.
  - More than one distractor is not credible.
  - One or more distractors is (are) partially correct (e.g., if the applicant can make unstated assumptions that are not contradicted by stem).
- 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.
- 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).
- Based on the reviewer's judgment, is the question as written (U)nacceptable (requiring repair or replacement), in need of (E)ditorial enhancement, or (S)atisfactory?
- At a minimum, explain any "U" ratings (e.g., how the Appendix B psychometric attributes are not being met).

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward	Q=K/A	SRO Only			
24B	H												X		E	B (1999 NRC Exam)NRC: Reference is an Abnormal Procedure, but KA requires knowledge of EOP event based mitigation strategies related to a turbine trip. Licensee: Revised parameter to give trip and place applicant in EOP.
25B	H														S	B
26B	F														S	B
27B	H														S	N
36B	H														S	N
37B	H														S	B
41B	H														S	N
46B	F														S	B
50B	H														S	N
55B	F												X		U	B NRC: KA is two part, predict consequences and use procedure to mitigate consequences. Question does not address use of procedure. Licensee: Rewrote question to incorporate procedure useage.
64B	F														S	B
66B	H														S	B
72B	H														S	N
77R	F												X		U	M NRC: Reference is an Abnormal Procedure, but KA requires knowledge of reasons for EOP guidance. Licensee: Rewrote question to require identification of EOP bases.
78R	H														S	N
82R	H														S	B
91R	H														S	B

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward	Q=K/A	SRO Only		
92R	H													S	N
100R	F													S	B
76S	H												X	U	N NRC: Not SRO only knowledge. Licensee: Wrote new question for SRO only.
80S	H													S	B
83S	H													S	B
91S	H													S	M
94S	H													S	B
98S	H													S	B
1B	F													S	N
3B	F													S	N
5B	F													S	N
6B	F													S	N
7B	F													S	N
8B	F													S	N
9B	F													S	N
10B	F													S	N
11B	F													S	N
12B	F													S	N
14B	F													S	N
15B	F													S	N

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q=K/A	SRO Only		
16B	F													S	N
17B	H													S	N
18B	F													S	N
20B	F													S	N
21B	F													S	N
23B	H													S	N
28B	H													S	N NRC: ROs required to know TS entry condition? Licensee: ROs are expected to know TS entry conditions. Also have LO.
29B	H													S	N
30B	H													S	N
31B	F													S	N
32B	F													S	N
33B	F													S	N
34B	HF													S	N NRC: Fundamental knowledge of rod motion vs temperature reactivity effect. Licensee: Agreed.
35B	F													S	N
38B	F													S	N
39B	H													U	N NRC: KA is two part, predict consequences and use procedure to mitigate consequences. Question does not address use of procedure. Licensee: Rewrote question to address procedure useage.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward	Q=K/A	SRO Only			
40B	F												X		U	N NRC: KA is two part, predict consequences and use procedure to mitigate consequences. Question does not address predict consequences. Licensee: Rewrote question to predict consequences.
42B	F														S	N
43B	F														S	N
44B	F												X		U	N NRC: KA is two part, predict consequences and use procedure to mitigate consequences. Question does not address predict consequences. Licensee: Rewrote question to predict consequences.
45B	F														S	N
47B	F														S	N
48B	F														S	N
49B	H														S	N
51B	H														S	N
52B	H														S	B
53B	H														S	N
54B	H														S	N
56B	H														S	B
57B	H														S	N
58B	H														S	N
59B	H														S	N

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward	Q=K/A	SRO Only		
60B	H													S	N
61B	H													S	N
62B	H											X		U	N NRC: KA is two part, predict consequences and use procedure to mitigate consequences. Question does not address use of procedure. Licensee: Wrote new question to address both parts of KA.
63B	H													S	N
65B	H											X		U	B NRC: KA is two part, predict consequences and use procedure to mitigate consequences. Question does not address use of procedure. Licensee: Wrote new question to address both parts of KA.
67B	H													S	N
68B	F													S	N
69B	F													S	N
70B	F													S	N
71B	H													S	N
73B	F													S	N
74B	H													S	N
75B	H													S	N
76R	H													S	N
79R	H													S	N
80R	H													S	M
81R	H													S	B
83R	H													S	B

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward	Q=K/A	SRO Only		
84R	H													S	B
85R	F													S	N
86R	H													S	N
87R	H													S	N
88R	H													S	B
89R	H													S	N
90R	H													S	N
93R	F					X								U	N NRC: If applicant knows item 4 is incorrect, he can eliminate all incorrect distractors. Need to replace item 4 in at least one of the distractors. Licensee: Rewrote question stem and answers to prevent applicant from determining correct answer by evaluating the distractors only..
94R	F													S	N
95R	F													S	N
96R	H													S	M
97R	F													S	B
98R	F													S	N
99R	F													S	N
77S	F													S	N
78S	H											X		U	N NRC: Question does not address ability to monitor/operate the plant fire zone panel. Licensee: Rewrote question stem and answers to address KA.
79S	F											X		U	N NRC: Question does not address effect of pressure on leak rate. Licensee: Rewrote question stem and answers to address KA.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward	Q=K/A	SRO Only			
81S	H												X		U	B NRC: Question does not address reason for EOP guidance for loss of IR NIs. Licensee: Replaced KA because Davis-Besse EOP does not contain guidance on loss of IR NIs.
82S	F													X	U	N NRC: Not SRO only knowledge. Licensee: Rewrote question to SRO only level.
84S	F														S	B
85S	H														S	B
86S	F														S	B
87S	H												X		U	N NRC: Question does not address knowledge of PZR PCS design features that provide overpressure protection. Licensee: Rewrote question stem and answers to address KA.
88S	H														S	B
89S	F														S	N
90S	F														S	N
92S	H														S	B
93S	F														S	N
95S	H														S	B
96S	H														S	B
97S	F														S	N.
99S	H														S	B
100S	F														S	N

NOTE:

1. First 30 questions used for sample review.
2. First 30 questions received independent verification of references.
3. 100% of questions received KA verification.

# Davis-Besse Operating Exam Comments

## Administrative JPMs

### A.1.a (RO) Stroke Timing of a Locked Valve (2.1.1)

#### NRC Comments:

- 1) Filled-in time/date..etc on Locked Valve Log Sheet.
- 2) IC: EO has a short term OP-16 to close HP-31 breaker.
- 3) Step 2, Cue: Test requirements initialized in the procedure.

Licensee: Agreed.

### A.1.b (RO/SRO) Determine API in Spec with Alarms Inoperable (2.1.11)

#### NRC Comments:

- 1) P.4 and 5, steps 9 and 10 critical for SRO.
- 2) Provide Answer Key (p.18 of DB-NE-03220).
- 3) IC: Add "plant conditions are as you see them," delete "plant power at 96%."
- 4) Spell out acronym "CTRM" as "control room" first time used in JPM.

Licensee: Agreed.

### A.2 (RO/SRO) Perform Surveillance Test for Post Accident Panel, Determine Instrument Out of Tolerance. SRO Determine Tech Spec Requirements (2.2.12)

#### NRC Comments:

- 1) P.1, the initiating cue has the applicant complete "Section 4.4," but the JPM has the applicant complete 4.4.1 and 4.4.2, it should include Sections 4.4.3-6.

Licensee: Agreed.

### A.4 (RO/SRO) Activate the Computer Automated Notification System on an ALERT (2.4.43)

#### NRC Comments:

- 1) During validation, RO noted that activating CANS is an SRO, not an RO, function. Training department verified issue.
- 2) IC: Delete "You are the spare RO."
- 3) Step 1 Cue: If asked, plant announcements have been made per Step 6.1.
- 4) Step 3 Comment: Add "(2222)".
- 5) Step 8 Cue: Add "1-800-405-4758 and PIN #2533024"
- 6) Step 9 Cue: Add "The control room has received a fax; all appropriate ERO personnel have called in."

Licensee: Agree with comments. Rewrote new A.4 JPM for RO, "Notify State and Counties on an ALERT."

## System JPMs

### B.1.b Align ECCS Suction to Emergency Sump MSL3

NRC Comments:

- 1) Attachment 7, Section 2. Suction Transfer, states "the SRO shall direct this part of the procedure." If SRO directs each step, procedure is not discriminating.

Licensee: Agree with comment. Procedure recently changed from an "in-hand procedure performance" to having the SRO direct each step based on INPO evaluation/input. Replaced with "Operate the LPI System During a LOCA."

### B.1.d Borate the Makeup Tank Using Attachment 13 of DB-OP-02000 NS1

NRC Comments:

- 1) Steps 2 and 3 are not critical, only "verifying valve position."

Licensee: Agree with comment.

### B.1.e Trip an RPS Channel DAS7

NRC Comments:

- 1) Step 2, add "Key 33."
- 2) Step 3 Note: Delete "Provide cues as required."

Licensee: Agree with comments.

### B.1.f Start CTMT Purge On the Penetration Rooms NS8

NRC Comments:

- 1) Step 1, provide procedure with prerequisites signed off.
- 2) P.4, Step 4, only critical if applicant has to change valve position.

Licensee: Agree with comments.

### B.1.g Manually Trip SFAS DAS2

NRC Comments:

- 1) IC: Add: "(SFAS Levels 1-4 including containment spray)"
- 2) Step 2 not critical.
- 3) Step 8 Cue: "Another operator will verify SFAS actuation."

Licensee: Agree with comments.

### B.2.b Line Up BUSW Pump to Service Water D4

NRC Comments:

- 1) P.1, plant is using Rev.2

Licensee: Agree with comments.

### B.2.c Loss of a TPCW Pump D8

NRC Comments:

- 1) P.1, front initiating cue says 4.1.2, but the P.2 initiating cue says 4.1.3.

Licensee: Agree with comments.

## Scenarios (1,2,spare)

### Scenario 1

NRC Comments: None.

### Scenario 2

NRC Comments:

- 1) ROP gets both N and R events. Stay consistent with rotation, give the N event to the ROS (Upgrades are only in 1 scenario). Want to ensure there are enough C and Is based on applicants being in two scenarios.

Licensee: Agree with comments. Replaced N event and gave it to the ROS.

### Scenario 3

NRC Comments: None.