NRC COMMENTS TO THE INITIAL SUBMITTAL OF THE

OPERATING TEST AND THE WRITTEN EXAMINATION

INCLUDING NRC FORMS ES-401-9 AND ES-401-10

FOR THE FERMI INITIAL EXAMINATION - MARCH 2003

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		
1	H	2												S	
2	F	2												S	
3	F	2												S	
4	H	2												S	
5	H	2												S	
6	H	2												U	Does not qualify as a "Modified" question since distractor not changed (ref 401, D.2.f). **Changed to "Direct" from question bank.**
7	F	2												S	
8	H	2												S	
9	H	2	X											U	HPCI and RCIC may be inoperable simultaneously. Requires 3.0.3 S/D! **Changed distractors.**
10	F	2												S	

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.
   - 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).

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. 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?

7. At a minimum, explain any "U" ratings (e.g., how the Appendix B psychometric attributes are not being met).

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11	H	3												S	
12	H	2												S	
13	H	3						X						U	Required knowledge for RO applicants? **Replaced question.**
14	F	2												S	LOK - Relevance of first sentence to the condition? If not, it's a memory question. **Comment not incorporated.**
15	F	2												S	
16	F	2												S	
17	H	3												U	LOK - Higher due to knowledge of battery bus and affect to EDGs **Comment incorporated.**
18	H	2												S	
19	H	2	X											E	Delete 'containment parameters' in stem and pull 'drywell temperature' into stem - delete same from all distractors. **Comment incorporated.**
20	F	2												S	Why is a Basis information from TS an RO question? **Comment NOT incorporated.**
21	F	2												S	
22	F	2												S	
23	F	2												S	
24	F	2												S	Why is a Basis information from TS an RO question? **Comment NOT incorporated.**
25	F	2											X	U	Why is a Basis information from TS an RO question? **Question now references and AOP.**
26	H	3												S	
27	H	3												S	
28	F	2											X	U	Why is a Basis information from TS an RO question? Also, not a higher level of cognizant question. **Question replaced.**
29	F	2												S	LOK - not higher since told high rad levels in SC, operator does not have to deduce conditions. Also, why must RO applicants know basis? **Comment NOT incorporated.**

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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only		Explanation
30	F	2	X											U	LOK - not higher since told fuel failure occurred; can remove entire condition paragraph and still be able to answer question! **Comment incorporated.**
31	H	2												S	
32	H	2												S	Can SBFW be operated from remote S/D panel? **Yes**
33	H	2												S	
34	F	2												S	
35	H	2												S	
36	F	2												S	
37	H	2												S	
38	F	2												S	
39	H	3												S	
40	F	2												S	
41	F	2												S	LOK - memory level question. **Comment NOT incorporated.**
42	H	2												S	
43	F	2												S	
44	F	2												S	
45	F	2												U	LOK - memory level question. **Comment incorporated.**
46	H	2		X		X								U	Cue given in stem that SDV high level alarm in. **Changed stem and distractors.**
47	H	2												S	
48	F	2												S	
49	H	3												S	
50	F	2												U	LOK - Memory level question. **Comment incorporated.**

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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only		Explanation
51	H	3												S	
52	H	2	X											E	Noun name for E41-F011? **Comment incorporated.**
53	H	2				X						X		U	LOK - Higher level of knowledge! Need to ask how this was taught in classroom. Does not meet K/A. Multiple correct answers? **Comment incorporated - changed stem.**
54	H	2	X											E	Remove from each distractor and add to stem, "ADS will begin depressurizing the plant..." **Comment incorporated.**
55	F	2												S	
56	H	2												S	LOK - higher level of knowledge! Need to ask how this was taught in classroom. C not a creditable distractor. **Comment NOT incorporated.**
57	F	2												U	LOK - memory level question. Need to ask how this was taught in classroom. **Comment incorporated.**
58	F	2												S	
59	H	3												S	
60	F	2												S	LOK - memory level question. **Comment NOT incorporated.**
61	H	2												S	
62	H	2												S	
63	F	2												S	
64	F	2												S	
65	H	2												S	
66	F	2												U	LOK - Memory level question. **Comment incorporated.**
67	H	2												S	
68	F	2												S	Does not meet K/A, not a double valve isolation question. May have to make this a generic question. **Comment NOT incorporated.**
69	F	2												S	
70	F	2												S	

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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only	U/E/S	Explanation
71	H	3												S	
72	H	3												S	
73	H	3												S	
74	H	2												S	
75	F	2												S	
76	F	2												S	
77	H	2												S	
78	F	2												S	
79	F	2												S	
80	H	2												S	
81	F	2												S	
82	F	2												S	
83	F	3												S	LOK - as constructed, not a higher level cognitive question, but a higher LOD question! **Comment NOT incorporated.**
84	F	2												S	
85	F	2												S	
86	F	2												S	
87	F	2												S	
88	F	2												S	
89	F	2												S	
90	F	2												S	

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			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only		Explanation
91	F	2												S	
92	F	2												S	
93	F	2												S	
94	F	2												S	
95	F	2												S	
96	F	2												S	
97	H	2												S	
98	F	1												U	Too easy! Also, this action will be duplicated during scenarios! Need to beef this up. **Question replaced.**
99	F	2												S	Why must this be known by the RO? **Comment NOT incorporated.**
100	H	2												S	
S2	H	3												S	
S7	H	2												S	
S8	H	2												S	
S9	H	2												S	
S11	H	2				X								U	Why is distractor B not correct also? In-plant busses dead. **Comment incorporated - changed stem.**
S14	H	2												S	Why is distractor A not also correct? How much smoke? **Comment NOT incorporated.**
S15	F	2												S	LOK - memory level question! **Comment not incorporated.**
S17	H	2												S	
S33	H	2												U	LOK - Higher level cognitive question!? Need to ask how this was taught in classroom. **Comment incorporated.**
S41	H	2												S	

| Q# | 1. LOK (F/H) | 2. LOD (1-5) | 3. Psychometric Flaws | | | | | 4. Job Content Flaws | | | | 5. Other | | 6. U/E/S | 7. |
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only		Explanation
S48	H	2												S	LOK - high level question. **Comment NOT incorporated.**
S67	F	2												S	
S85	F	2												S	
S86	F	2												S	
S87	F	3												S	
S89	F	2												S	
S91	F	2		X								X		U	Question is directed to Refuel Floor Supervisor responsibilities not SRO Fuel handling supervisor as req'd by K/A. Also, clues to answer in stem. **Comment incorporated - changed stem, added better distractors.**
S93	H	2												S	
S94	H	2												S	
S95	F	2												S	LOK - not a higher level question. **Comment NOT incorporated.**
S96	F	2												U	LOK - not a higher level question. **Comment incorporated.**
S97	H	2												S	Distractor C not plausible. Question asks about LPCI response, Distractor C references recirc pump response. Need a better distractor referencing LPCI. **Comment not incorporated.**
S98	H	2												S	LOK - higher level question. (Too many conditions in distractors?) **Comment NOT incorporated.**
S99	H	3												U	LOK - higher level question. **Comment incorporated.**
S100	H	2												E	Typo in 2nd sentence in stem. **Typo fixed.**

Tier / Group	Randomly Selected K/A	Reason for Rejection
ES-401-1 - Tier 1/Grp 1 **ES-401-2** - Tier 1/Grp 2	**295030** Low Suppression Pool Water Level / 5 **Generic 2.2.25** Knowledge of bases in technical specifications for limiting conditions for operations and safety limits	This K/A was selected as a common question, and Reactor Operators are not tested on Technical Specification Bases.

2003 NRC Exam Validation Visit
JPM Comments

No.	Document	Comments	Resolution
1	JPM A1.a	Initiating cue states that the computer in the simulator may be used to perform the task , but the first step states that it can be performed at any terminal	Changed initial conditions to state the task can be performed at any terminal
2		Step 3 refers to Step 7, but should refer to a step that is missing.	Added the missing step and renumbered the entire JPM.
NA	JPM A1.b	No Comments	None
3	JPM A2	Initiating cue should state " verify all items meet acceptance criteria.."	Changed the initiating cue on both the cover sheet and the cue sheet.
4	JPM RO A3	Initiating cue should state "..Determine if you meet the requirements to perform this task.."	Changed the initiating cue on both the cover sheet and the cue sheet.
5		Terminating cue refers to "NSS."	Changed reference to Shift Manager (SM)
6	JPM RO A4	Initial conditions protective action recommendation should not include "...and evacuate to 5 miles the downwind sectors (Area 1) at this time..."	Revised
7		Cue before step 1 should not prompt the examiner to give the candidate the Technical Data Form (TDF)	Removed reference to TDF
8		Step 1 should not include the TDF	Removed reference to TDF
9		Cue before Step 2 should include that meteorological data will be given to the candidate when he either asks for it from the STA, calls the National Weather Service, or obtains by computer from ERIS or the meteorological computer	Added to Cue
10		There should be a cue before Step 3 to give the candidate the TDF	Added Cue
11	JPM SRO A3	Change cue for Step 4 to "Hans Blix"	Changed Cue
12		Change Step 7 standard to "Examiner signs for Hans Blix	Changed Step 7
13		Last four steps of JPM are numbered incorrectly	Numbered steps correctly
14		Change cue before Step 9 to ask the candidate who has to sign the form for approval	Added statement to Cue
15		Add note for Step 9 that if applicant obtains Site VP signature, make exam comment, rather than fail the	Added note

No.	Document	Comments	Resolution
		critical step.	
16	JPM SRO A4	Rewrite entire JPM to allow every SRO to complete the JPM on the first day of JPMs – must include sufficient initial conditions to allow them to classify. Don't classify the scenario that is performed on the first day.	Rewritten
17	JPM B1.a	Add steps to allow that the candidate may perform the steps from memory as it is a management expectation that it should be done as so.	Added note with reference to Operations Department Expectation (ODE) 10, Emergency Operating Procedure Expectations.
18	JPM B1.b	Modify cue to state that all prerequisites are completed.	Modified Cue.
19		Have the Condenser Low Vacuum Trip Bypass Keylock Switches in BYPASS at the beginning of the JPM and start the JPM at Step 7.1.2.3	Added to Simulator Setup, Initiating Cue, and Cue Sheet.
20		Close N3013-F601, Gland Steam Inlet Hdr Iso Vlv as part of the simulator setup for the JPM.	Added to Simulator Setup.
21	JPM B1.c	Add note that will allow the examiner to stop the JPM after A1 and A2 channels have been completed.	Note added
22		Add note that phone talker will be needed at the SOER printer/terminal	Note added
23		Add that there is a person in the Relay Room to the Initial Conditions	Note added
24	JPM B1.d	Add "less" to the initiating cue for "less than 1.68 psig"	Added "less."
25		Add cue for Step 1.6.2 that if the candidate reports to the CRS that T4800-F455 won't open and asks for direction, the CRS will tell the candidate to follow the procedure.	Added Cue.
26	JPM B1.e	Change initiating cue to state that prerequisites are complete	Changed Cue.
27		Add note to step 2 to indicate the location of lights to be verified.	
28	JPM B1.f	Add standard to Step 6.1.2.1 for making plant announcement on Hi-Com	Added standard
29	JPM B1.g	Correct typos in initiating cues	Corrected

2003 NRC Exam Validation Visit
JPM Comments

No.	Document	Comments	Resolution
30	JPM B2.a	Change all of JPM to place the "B" Flow Control Valve in service and remove "A" Flow Control Valve from service.	Changed all cues and notes to indicate "A" CRD Flow control Valve is in service and "B" is being removed from service.
NA	JPM B2.b	No Comments	None
NA	JPM B2.c	No Comments	None

Scenario modifications as a result of the NRC Validation

Scenario/Event	Comment	Changes
ES-D-1 Scenario 1 BOP(C)	Did not want to use MF 3656(3657) Pressure Regulator Failure N001A(B) Event # 5 since BOP had few actions.	Event 5 became MF 0016 Main Steam SRV Failure B21-F013A (100%)
ES-D-2 Scenario 1 Event 1 Power Change using rods	None	No Changes
ES-D-2 Scenario 1 Event 2 APRM Channel 1 Upscale	Applicant's Actions or Behaviors referred to APRM # 3	Corrected the typographical error to correctly refer to APRM #1
ES-D-2 Scenario 1 Event 3 Uncoupled Control Rod	No reference to T.S. 3.1.3	Added reference to T.S. 3.1.3
ES-D-2 Scenario 1 Event 4 24.206.01 Section 5.1	None	No Changes
ES-D-2 Scenario 1 Event 5 Pressure Regulator Failure SRV A Fails Open	Wanted to replace Pressure Regulator Failure as event 5.	Replaced event 5 with SRV A Fails Open. This is a completely different event.
ES-D-2 Scenario 1 Event 6	Directed Torus Cooling and sprays and drywell sprays to include pump and valve numbers.	Directed Torus Cooling and sprays and drywell sprays **including** pump and valve numbers.

Scenario/Event	Comment	Changes
ES-D-1 Scenario 2	Wanted to include in Initial conditions that B Steam Tunnel Cooler is in service, and that RWM group 41 rods were to be withdrawn prior to transferring feedwater from SULC to Single element control. Wanted to reverse the sequence of Event 1and Event 2 and to include RCIC Failure to manually trip as part of event 4.	Revised Initial conditions to include B Steam Tunnel Cooler in service, and that RWM group 41 rods were to be withdrawn prior to transferring feedwater from SULC to Single element control. Event 1 1s the Reactivity Control and event 2 is the Normal Evolution. RCIC Failure to manually trip now included as part of event 4.
ES-D-2 Scenario 2 Event 1	Originally Event 2 and did not include Booth Operator Guidance on providing Full Out Coupling Verification sheets and starting rod withdrawal with RWM group 41.	Now Event 1 and includes Booth Operator Guidance on providing Full Out Coupling Verification sheets and starting rod withdrawal with RWM group 41.
ES-D-2 Scenario 2 Event 2 Transfer from SULC to single element control.	Reverse events 1 & 2. Originally Event 1	Now Event 2
ES-D-2 Scenario 2 Event 3	No Comments	None
ES-D-2 Scenario 2 Event 4 Respond to RCIC spurious initiation.	Wanted a failure of RCIC to manually trip from the Control Room.	Event 4 did now includes a failure of RCIC to manually trip from the Control Room. Added expectations on various ways of terminating unneeded RCIC flow to the RPV.
ES-D-2 Scenario 2 Event 5	No Comments	None
ES-D-2 Scenario 2 Event 6 Respond to seismic event with small break LOCA with a failure to automatically SCRAM.	Originally Event 6 did not include information on Emergency Depressurizing when unable to Restore and Maintain RPV level above −28".	Event 6 now includes SRO and BOP actions on Emergency Depressurizing when unable to Restore and Maintain RPV level above −28".

ES-D-1 Scenario 3 (Spare)	Desired whichever SLC pump was started in Event # 5 to trip after a 5 minutes of operation.	Event # 5 MF 3603 SLC Pump A Trip **or** 3604 SLC Pump B Trip based on which pump is started.
ES-D-2 Scenario 3 Event 1	No Comments	None
ES-D-2 Scenario 3 Event 2	No Comments	None
ES-D-2 Scenario 3 Event 3	No Comments	None
ES-D-2 Scenario 3 Event 4	No Comments	None
ES-D-2 Scenario 3 Event 5 A SLC Pump Failure	Originally Event 5 was a failure of SLC Pump A to start.	Event 5 now trips, after 5 minutes of operation, whichever (A or B) SLC pump was started, and includes expected RO actions.