

J. Caruso
S. Dennis

OPERATING EXAM REVIEW COMMENTS

General Comment: Please make all applicant hand out material a different color paper including all cue sheets and reference materials. **Licensee agreed**

Admin. JPMS

- A.1.2 - Review of logs - initiating cue too leading - delete second sentence. **Done**
- A.4 - 1 For the initiating cue, why are we telling SRO applicants the procedure and section? **Done**
- A.1.1 - Respond to Red event - recommended to licensee to mark the front of this JPM in **BOLD and CAPS, "SENSITIVE SECURITY INFORMATION DO NOT RELEASE FOR PUBLIC DISCLOSURE"** **Licensee agreed to this.** In addition, Greg Smith, Sen. Region I Security Inspector was consulted regarding the marking of this procedure. OP 3132, "Response to Security Events" is not classified sensitive security information. **Greg contacted site security and discussed classifying this procedure as Proprietary to help prevent inadvertent public disclosure, Also from an industry wide perspective, Greg recommended that VY security contact NEI to discuss a standardized approach for the industry to classify such procedures for the future.**

Simulator JPMS

- Swap Pressure Regulators - edit initiating cue to delete procedure reference - all are SRO applicants - they should not need to be directed to the proper procedure. **This was done also revised this JPM to make alternative path.**
- Shift RPS bus Power: 1) edit initiating cue to delete procedure reference - all are SRO applicants - they should not need to be directed to the proper procedure. 2) This JPM really does not adequately discriminate. Should either be replaced or beefed-up. **Licensee agreed to just designate for the SROI applicant not for the SROUs.**
- Perform alt Rx injection with "A" RHRSW - 1) for alt path JPMS, please indicate on cover page of JPMS that are is alt path. 2) Edit initiating cue to delete procedure reference - all are SRO applicants also move/relocate "Another operator will perform step 1..." to scripted cue. 3) Step #5 critical? 4) Don't see what makes this JPM alt. path? **Licensee indicated that the high sump level which required throttling pump flow was intended to be their alt path but conceded that this was really just compliance with a system precaution and did not involve real change in procedure direction (i.e., alt path). JPM was replaced with another proposed Terminate and Prevent JPM that was also determined not be alternate path. However, retained this as a normal JPM**
- Reset Group I logic: 1) edit initiating cue to delete procedure reference - all are SRO

applicants - they should not need to be directed to the proper procedure. 2) requires very little operator action and is a weak assessment tool. LOD -1.5, very weak. This may have been accepted in past exams. **Licensee agreed to either replace or just designate for the SROI applicant not for the SROUs. This was a compromise considering there were 3 simplistic tasks in this set of JPMs. Added steps to equalize and open MSIVs.**

- Restart S/D Cooling: edit initiating cue to delete procedure reference - all are SRO applicants - they should not need to be directed to the proper procedure. **Done**
- Respond to a Rod Drift: edit initiating cue to delete procedure reference - all are SRO applicants - they should not need to be directed to the proper procedure. 2) Steps # 4&5 critical? **Determined steps 4&5 not critical also revised initiating cue to remove procedure reference.**
- Secure SBGT: 1) edit initiating cue to delete procedure reference - all are SRO applicants - they should not need to be directed to the proper procedure. 2) Steps # 6&7 critical?

In-plant JPMs

- Operate RCIC from Alt s/d panel - doesn't look like replacing a burned out light bulb/fuse adequate alt path. **Determined after validation week that the JPM was an adequate alt. Path JPM.**
- Vent scram air header - weak borderline acceptable. **Licensee agreed to designate for the SROI applicant not for the SROUs.**

Scenario #1

1. Critical Tasks - General Comment Regarding All Cts - Why isn't the opening of SRVs considered a CT for the BOP? Should script all related actions in and bold as part of the Cts. **Revised scenario.**
2. CTs# 2&3 Alt Scram actions % ED - what are the 10 minute and 5 minute bases - these numbers should not have been arbitrarily elected but based on some meaningful safety concern. **Established in LORT program by Ops as reasonable goals for sat. performance.**
3. Are we going to have them classify the events after each scenario - please include expected classification?

General Comment: Please provide the safety bases for established times and or margins for all CTs in all scenarios. **Ops Trng Supervisor indicated that the times were based on LORT established CTs.**

Scenario #2

1. Event 6 - Need more specific operator action detail for transfer of house loads to startup

xfmr. **Revised scenario.**

2. Event 8 - Initiate a manual scram for the CRO should be a critical task. Need more details - What are table "A" Initiations and Isolations? What are the OT 3122 Actions are they all scripted? **Revised scenario.**
3. Event #9 & 10 you plan to include attachments 2-1, 2, 3 later providing more detailed actions?? **Provided on disk.**
4. Other Critical Tasks - Why isn't the opening of SRVs considered a CT for the BOP - need bold all required actions for CTs. **Revised scenario.**
5. See general comment above regarding all Cts for this scenario (i.e., provide the safety bases for established times and or margins for all CTs in all scenarios). **Revised scenario.**

Scenario #3

1. Other Critical Tasks - Why isn't the opening of SRVs considered a CT for the BOP? **Revised scenario.**
2. Weak scenario for SRO evaluation - no competing EOP priorities. Please consider beefing up. However only the back-up scenario - accepted as-is.

General Comment: Completed review of the last 2 operating exams administered for overlap with the currently proposed Operating exam and concluded zero actual overlap. The radcon admin JPM was testing the same general area but it was modified.

Written Examination Review Worksheet

NOTE : 1. BOLD & Italics reflect resolution of comments

2. Reviewed by S. Dennis and J. Caruso - all questions reviewed for K/A match and a selected number for detailed technical review.

3. Provided licensee comments on 1/17/05 per telecom on draft exam - licensee submitted exam late (received 12/27/04).

11 UNSATS & 13 Editorials (Answer Key used all draft Sep proposal questions in advance & provided licensee feedback).

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			
1	H	2											Y	N	S	
2	H	3											Y	N	S	
3	H	3											Y	N	E	Add to Stem.. Assume NO additional actions are taken by the operators. Done
4	H	3											Y	N	S	Need Additional references or prints which discuss or show the tie between the light indication and blown fuses. Additional references provided and reviewed - no concerns identified.
5	H	3											N	N	E	K/A -doesn't seem t match unless the tie is a main generator trip and subsequent turbine trip. Also, what is the significance of the "10 seconds" in stem. Licensee expanded justification to explain K/A tie and 10 sec. delay.
6	F	1-2?											Y	N	S	Borderline LOD 1-2. Licensee disagreed 2 of 5 validators missed this question.

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		
7	H	2	X									Y?	N	U	<p>The procedure has you first place the MTS-13-1 switch to Emergency prior to placing the other transfer switches to emergency. Therefore the stem statement regarding the transfer switches seems to indicate that the procedure was performed out of order. Is this procedure required to be performed sequentially in order? There may be no correct answer for this question if that is the case.</p> <p>Additionally, the question seems to be how DC affects RCIC and NOT the ability to monitor or operate DC distribution for control room abandonment as stated for the K/A. Looks like 217000K6.01 (Knowledge of effect that a loss of electrical power supply will have on RCIC) is a much better K/A fit Licensee revised stem to fix first concern also upon further review agreed that K/A fits DC distribution is being monitored as it affects control room abandonment - question was determined to be acceptable as revised.</p>
8	F	1										Y	N	U	<p>LOD=1 too Basic/Fundamental loads cooled by TBCCW. Licensee agreed and replaced question using same K/A.</p>
9	H	3										Y	N	S	
10	F	3	X									Y	N	E	<p>Stem should state that the RHR pumps cannot be restored, otherwise placing the other loop in service should be the first choice and therefore there may be no correct answer. Suggest modifying stem second bullet "Shutdown cooling lost, and it is not possible to restore the RHR system any time soon" Licensee agreed and incorporated comment.</p>
11	F	2					X					Y	N	U	<p>2 correct answers - B could also be correct. Licensee agreed with comment and revised both a&b distractors for symmetry.</p>
12	F	2										Y	N	E	<p>Need to change to fundamental - this is a design basis question disguised as a comprehensive knowledge question. Changed to fundamental</p>

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		
13	H	3										Y	N	S	
14	H	2				X						Y	N	U	a&d distractors not credible with reference in hand. direct lookup on EOP graph??. Licensee changed question, answer and distractors so each requires equal usage of EOP-1
15	F	2										Y	N	S	
16	H	2										Y	N	S	
17	F	2										Y	N	S	
18	H	3										Y	N	S	
19	H	3										Y	N	U	The answer seems incomplete per reference "ensure TS 4.8.k.2 is also completed within 4 hours" Licensee made change.
20	F	1-2				X						Y	N	E	distractors C not credible. Licensee revised also discussed why D is plausible.
21	H	2										Y	N	S	Need to review other procedures referenced in the distractors to ensure they are incorrect. Received additional references and identified no concerns.
22	F	2										Y	N	S	Clarified justifications for distractors.
23	F	2	X									Y	N	E	Define long term and Why will they trip on thermal overload? Licensee revised stem and provided more justification for answer.
24	H	3										N	N	U	1. This is K/A mismatch. It is a RCIC based question not suppression pool cooling question as stated in the K/A 2. No correct answer. With a group 1 isolation and no RHR, why wouldn't you be required by TS or administratively to shutdown the plant as your first course of action (unless there is an assumption that a shutdown already occurred) . Licensee replaced question using same K/A.
25	F	2										Y	N	E	

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		
26	H	2										Y	N	S?	Initially concerned direct look-up and the reason for ED is probably more for personnel safety and equipment operability at these temperatures. Determined to be acceptable after licensee revisions since this is an RO level question and licensee added to justification that the applicant must determine that RWCU is a primary system also changed the answer reason to "equipment reliability" which is more reasonable and accurate.
27	H	2		X								Y	N	E	Do we need to list in the stem "Bypassing ..Non-Rad HVAC Trips". Since this cues that A&B are wrong?? Revised stem to remove procedure title .
28	H	2										Y	N	S	
29	H	2										Y	N	S	
30	H	3										Y	N	S	
31	H	3										Y	N	S	Valve 12 A begins to open at 350#, will it be full open or "stroking open" as stated in the answer. The stem states that Rx pressure is at 300# and constant. Licensee clarified in justification.
32	F	2										Y	N	S	
33	H	2										Y	N	S	
34	H	3										Y	N	s	
35	H	3										Y	N	S	
36	H	2										Y	N	S	

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		
37	F	1										Y	N	U	LOD =1. Very simple no suction pressure to prevent pump damage. Modified suction pressure for 3#.
38	H	2										Y	N	S	
39	H	3										Y	N	E	Licensee clarified and added additional justification.
40	H	3										Y	N	S	
41	H	2										Y	N	S	
42	H	3										Y	N	S	
43	H	3										Y	N	S?	Distractors B and C appear not to be credible. How does an operator confirm an SRV tailpipe pressure switch actuated? Question acceptable - licensee added additional justification
44	H	3										Y	N	S	
45	F	3										Y	N	S	
46	H	3										Y	N	S	Need additional explanation of logic. Reviewed additional references sent - no concerns identified.
47	F	3										Y	N	S?	how does the question meet the K/A specifically motor generator output place in justification. Reviewed additional references sent - AC motor normal driving force for AC generator and DC motor is back-up source.
48	F	2										Y	N	S	
49	H	2				X						Y	N	U	The stem asks what DC supply is available. Distractors C and D state no power is available and are not credible. Modified stem to what DC source, if any?

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		
50	F	1				X						Y	N	U	LOD=1, basic question non-discriminating. b&d distractors not plausible sampling in and of itself will not prevent asphyxiating atmosphere or explosive mixture could determine concentrations. Modified distractors.
51	H	2										Y	N	S	
52	F	2										Y	N	S	
53	H	2										Y	N	S	
54	F	3										Y	N	S	
55	H	3										Y	N	S	References were unclear to support correct answer. Reviewed additional references sent - no concerns identified.
56	F	2										Y	N	S	Don't understand justification PSV-55 shuts pump explain further. Fixed justifications to ready more accurately.
57	F	2										Y	N	S	
58	H	3										Y	N	S?	Need to discuss how reference supports correct answer. Reference indicates RHR-65 Auto opens on RHR initiation signal. Reviewed additional references sent - no concerns identified.
59	H	3				X						Y	N	U	No correct answer. References state that the rupture discs are designed to open between 56 and 62 #. At 59 # as stated in the correct answer, the disc may not have ruptured, therefore no change in DW pressure will have occurred. Explain configuration, it sounds like even with TVS-86 open there is no vent path until the rupture disc ruptures?? Modified answer choices to get rid of rupture set point unnecessary.
60	F	2										Y	N	S	

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		
61	H	3										Y	N	S	
62	F	2										Y	N	S	
63	H	3										Y	N	S	
64	F	2										Y	N	S	
65	F	2										Y	N	S	
66	F	3					X					Y	N	E	Why are c&d wrong unless the procedures requires it to be done this way as stated in b. Revised c&d to be incorrect.
67	H	2										Y	N	S	
68	H	2										Y	N	S	
69	F	2										Y	N	E	Distractor D may not be credible. Is there a position titled "Tagout Holder Manager" referenced in procedures? Changed D to Dept Mng.
70	F	2										Y	N	S	
71	F	3										Y	N	S	
72	F	2										Y	N	S	
73	F	3										Y	N	S	
74	F	1										Y	N	U	Non discriminating LOD=1 set point question, also is the number -12 or -19 as shown in justification?? Licensee agreed replaced question using same K/A.

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		
75	F	2										Y	N	E	stem wording ..which one of the following individuals is responsible for coordinating the overall emergency response". Done.
76 sro-1	H	3										Y	Y	S	
77 sro-2	H	3										Y	Y	S	
78 sro-3	H	3										Y	Y	S	
79 sro-4	F	3										Y	Y	S	
80 sro-5	F	2										Y	Y	S	
81 sro-6	H	2										Y	Y	S	
82 sro-7	H	3										Y	Y	S	
83 sro-8	F	3										Y	Y	S	
84 sro-9	H	3										Y	Y	S	
85 sro-10	H	2										Y	Y	S	

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			
86 sro-11	H	3											Y	Y	S	
87 sro-12	H	3											Y	Y	E	Change stem question to "what procedure direction is required to be implemented" confused by justification for a&b shouldn't "b" justification read "Local firing will not work" Changed stem from should to is required also added more detail to justification.
88 sro-13	H	3											Y	Y	S	
89 sro-14	H	3											Y	Y	S	
90 sro-15	H	3											Y	Y	S	
91 sro-16	H	3											Y	Y	S	
92 sro-17	H	3											Y	Y	E	Rich, stem wording procedures required rather than should. Done
93 sro-18	JF	2											Y	Y	S	
94 sro-19	F	2											Y	Y	S	reference doesn't support answer. Reviewed additional references sent - no concerns identified.
95 sro-20	H	3											Y	Y	S	

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		
96 sro-21	H	2										Y	Y	S	
97 sro-22	H	3										Y	Y	S	
98 sro-23	F	3										Y	Y	S	
99 sro-24	H	3										Y	Y	S	Rich, stem wording procedures required rather than should. Stem revised and reviewed additional references sent - no concerns identified.
100 sro-25	H	3										Y	Y	S	

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			
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:															
	<ul style="list-style-type: none"> · 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. · One or more than one distractors 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:															
	<ul style="list-style-type: none"> · 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.	<u>Check questions that are sampled</u> for conformance with the approved K/A and those that are <u>designated SRO-only</u> (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).															

Successor's Resolution of Comments.

Rev 1: Now includes agreed upon changes agreed to via phone on 1/25/05.		
Question #	NRC Exam Problem	Fix or Justification
3	Add to stem "assume no additional actions".	Done
4	Need additional ref prints to tie light indication to fuses.	CWD and additional references provided.
5	K&A doesn't match unless Gen. Trip causes TB. Trip. Also, why 10 secs in stem?	Gen trip causes TB trip. 10 secs gives time for diesels to start to make distracters credible. Added this information into the exam justification section.
6	LOD of 1.	Disagree, 2 of 5 valuator missed it.
7	The stem says all switches in emergency except MTS 13-1. That is procedurally out of order and may have no right answer. K&A might not be a good fit.	Took out of stem portion that says all switches in emergency. Left it as MTS 13-1 not in emergency. K&A fits question. DC distribution is being monitored as it affects control room abandonment.
8	LOD 1.	Agreed, question replaced.
10	Add to stem that RHR pumps can not be restored soon.	Done
11	2 correct answers, reword b.	Done.
12	Not comprehensive.	Changed to fundamental.
14	A&D distracters are direct lookup with EOP in hand.	Changed question, answer and distracters so each requires equal usage of EOP 1 graph.
16	Doesn't match K&A and is fundamental.	Disagree. Candidate must first determine why RPVED is required. Then he must know that over pressurizing the containment is possible if RPVED is not performed due to the reduction in its heat capacity (lowering level reduces heat capacity).
19	Baseline off-gas reading is needed. Answer is incomplete. It needs additional TS section and that it is completed in 4 hours.	Done.
20	Distracters C&D not credible. May be an LOD 1 or 2.	LOD of 2 because it is an RO question that is asking the bases for a SM action. It is not the bases for an RO action or duty. C & D are credible. For C the admin building and RCA entrance are at

		<p>the same elevation and have no barrier. D is credible because it is the normal assembly area with the normal (non CO2) announcement being "All non-essential personnel stay clear of the area" (as opposed to evacuate).</p> <p>Changed distracter C to say the evacuation is necessary to relocate the TSC (the TSC is on the upper, non-evacuated floor. The OSC is on the lower floor).</p>
21	Need other procedures referenced in distracters.	Done.
22	C&D not credible.	They are credible, re-justified C&D. Air mixing for hydrogen control occurs at other BWRs. Our SAGs allow a type of mixing through a vent/purge operation with N2 or air.
23	Define "long term". Why do RRUs trip on overload?	Removed the term "long term" and put in a DW press and temp. Put justification in that says "pumping" of the steam causes a high current and thus exceeds the thermal setting.
24	K&A mismatch and no correct answer because GP 1 would require a plant shutdown.	<p>The logic and valves are in the tripped condition. The loss of the MSIVs, while at power, causes a scram thus the plant is shutdown. The K&A matches because it requires the candidate to know when SP. Cooling is required to prevent a SP high temp.</p> <p>However, it is agreed the question is overly wordy, complex and that a better K&A match can be found.</p> <p>The question was replaced.</p>
26	LOD 1. RPVED is more for personnel safety and equipment reliability.	<p>Disagree, LOD 2. Must know that RWCU is primary system. Must know definition of 2 Area/Locations (i.e. Channels 9-12 are considered on location). Added this information into the exam justification section.</p> <p>Changed reason for RPVED to equipment reliability.</p>
27	Distracters A&B are cued as wrong because the stem gives the title of APP AA (i.e. non-	Title of App AA removed from stem.

	rad trips are bypassed).	
28	Distracters A&C are not credible. Terminate and prevent prior to RPVED is basic knowledge.	Disagree. This is an RO level question. Level had been kept at 45" with condensate and feed (the first terminate and prevent had to be lifted to maintain level). The second terminate and prevent is in EOP 5 which is not provided.
30	Does the minimum flow valve need control oil to stay open?	No.
31	Will the 12A be full open or stroking open?	The plant was in a startup (i.e. normal heatup and pressurization) when an LNP occurs. The valve will not stroke at $\leq 350\#$ during a startup. It must also see 82.5" in the vessel or #2.5 in the DW (which it gets during the LNP). During the LNP the valve has no power until 13 secs when the diesel loads. The allowable valve stroke time is between 4.5 to 7.5 secs (OP 4123 provided as a reference). Thus at time 15 secs the valve will be stroking opened. Added this information into the exam justification section.
37	LOD 1 because only suction pressure is a negative pressure.	Changed to a positive 3# which is less than normal operating limits and similar in range to the 4# turbine exhaust pressure given.
39	Distracters A&C not credible because stem says SRVs are not available.	The stem says they are unavailable after a certain number of openings. The sustained openings use to actually be a procedurally directed step in the EOPs but no longer is. Added this information into the exam justification section.
42	Does a high power IRM scram happen?	Yes.
43	B&C not credible. How does an SRV activation be determined by tailpipe pressure?	Disagree. Each SRV has individual red light that is lit due to a high tail pipe pressure. There is also an alarm that comes in from pressure that says the relief valve is open and to check these lights. Added this information into the exam justification section.
46	Need more info on the logic.	Training prints and info provided.
47	K&A mismatch unless the AC/DC motors are the motor generator.	Training print provided. AC motor is the normal driving force for the AC generator and the DC motor is the backup

		source.
49	Stem asks what DC is available but distracters C&D say no DC is available.	Changed stem to say what DC source, if any, is available.
50	LOD 1. B&D not credible since detecting doesn't prevent an explosive/asphyxiating	Changed question to ask if Tech Specs of the TRM requires the action. Changed B&D to detect a possible explosive/asphyxiating atmosphere and A&C to prevent a possible explosive/asphyxiating atmosphere
53	Fundamental. Why isn't it a simple memory load question?	Disagree. First he has to determine if the alarms are normal or abnormal. 2 nd he has to determine what they have in common (e.g. RBCCW, power supply, service water). 3 rd he must decide that a loss is occurring. 4 th he has to determine a loss affects drywell RRUs. 5 th he must know that a loss of RBCCW to the drywell RRUs will cause temp to increase.
55	References unclear to support answer.	Provided training material to show how summer and plant indication work.
56	The PCV shuts the pump down, don't understand.	Misplaced comma in justification. Had read PCV-55 shuts pump, should not trip. Now reads PCV-55 shuts, pump should not trip.
58	How does reference support correct answer?	Provided additional references to include flowpaths and logic for the LPCI valve and suppression pool cooling valve.
59	No correct answer. Reference says rupture could go between 65-62 psig.	Deleted reference to rupture setpoint since it was unnecessary to the distracters or correct answer. Changed choices A & C to say "Manually open..."
61	Reference does not support correct answer.	Disagree. OP 1100, page 9 at the bottom states that the refueling interlocks provide rod blocks. On page 10 the refueling interlocks are listed. On page 11, section G.1. provides the interlock in the question. The load cell has failed high and thus the grapple is seen as being "loaded".
63	No correct answer unless with the alarm in the function is disabled.	The function is disabled with alarm in. See the provided ARS 5-K-8 under automatic actions.
66	Why are C&D wrong unless the procedure says it has to be	C&D changed and the distracters now are procedurally incorrect.

	done one way.	
69	Choice D may not be credible. Is there a tagout holder manager in the procedure?	No. Changed it to the Department Manager which is in the procedure.
70	LOD 1.	Disagree. Essentially the same question was asked on the 2002 NRC Clinton exam.
74	LOD 1.	Agreed. Changed question regarding the meaning of "shutdown" in the EOPs.
75	Add in stem ...individual is responsible for coordinating the overall emergency response.	Done.
85	Distracters not credible, it's a direct lookup.	Disagree. The torus is a primary containment system but is not a primary system as defined in EOP 4. If not determined to be a primary system than EOP 1 entry would be required and the need for an RPVED in EOP 4.
87	Delete the word should in stem. Should justification for B read local firing will NOT work?	Deleted should and replaced with "is required.." The control room switch failed to both fire the squib valves and run the pumps. The firing of the squibs works but it doesn't make the pumps run. Added a little more to the justification.
88	Why do A, C and E have flow signals of 125%?	The flow converter that feeds these 3 has failed high. This is indicated by it's top of scale reading and no corresponding reading from the D & F APRMs flow signals.
92	Replace should.	Done
94	Reference doesn't support answer. Replace should.	Added reference to EN-NS-103. Deleted should.
95	Replace should.	Done
99	All actions correct by procedure. Delete the word should.	Disagree, only one correct answer (but not really proved by provided procedures). Changed the wording of the correct answer so it more directly is supported by the referenced procedure. Added DP 166 as a reference and justification. Conservative Decision Making and Reactivity Management stress core safety over power production. The loss/degradation of SW jeopardizes core safety (long term cooling). The scram minimizes heat loads while the

		other actions continues power production.
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