General comments:
Comments in red require attention and/or action of CGS.

There are numerous questions in the RO section of the exam that require knowledge contained in PPM 5.0.1, Flowchart Training Manual. This is similar to an EOP basis document. Request CGS confirm that this is required information for ROs and they have received adequate training on it. The knowledge from PPM 5.0.10 that is required on the RO exam is expected knowledge for ROs and adequate instruction has been provided during Initial License Training.

When asking the reorder distractors, stating D-A-C-B means the current distractor D should be the new A, current distractor A should be B, etc.

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 a 1 (easy) to 5 (difficult); questions with a difficulty between 2 and 4 are acceptable.
3. Check the appropriate box if a psychometric flaw is identified:
   - "Stem Focus": The stem lacks sufficient focus to elicit the correct answer (e.g., unclear intent, more information is needed, or too much needless information).
   - "Cues": The stem or distractors contain cues (e.g., clues, specific determiners, phrasing, length).
   - "T/F": The answer choices are a collection of unrelated true/false statements.
   - "Cred. Dist.": The distractors are not credible; single implausible distractors should be repaired, and more than one is unacceptable.
   - "Partial": One or more distractors are partially correct (e.g., if the applicant can make unstated assumptions that are not contradicted by the stem).
4. Check the appropriate box if a job content flaw is identified:
   - "Job Link": 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).
   - "Minutia": 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).
   - "#/Units": The question contains data with an unrealistic level of accuracy or inconsistent units (e.g., panel meter in percent with question in gallons).
   - "Backward": 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 K/As that are designated "SRO-only." (K/A and license-level mismatches are unacceptable.)
6. Enter question's source: (B)ank, (M)odified, or (N)ew. Verify that (M)odified questions meet the criteria of Form 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" status ratings (e.g., how the Appendix B psychometric attributes are not being met).

Answer Distribution						LOK			Average LOD			RO Question Source			SRO Question Source	
RO-A	17		SRO-A	6		RO-F	32		RO	2.41		B	25		B	2
RO-B	21		SRO-B	7		RO-H	43		SRO	2.56		M	5		M	1
RO-C	20		SRO-C	6		SRO-F	8					N	45		N	22
RO-D	17		SRO-D	6		RO-H	17									

10 CFR Distribution													
41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	41.10	41.11	41.12	41.13	41.14
3	2	0	5	4	4	20	3	0	27	1	2	4	0

			43.1	43.2	43.3	43.4	43.5	43.6	43.7				
			1	10	0	1	12	0	1				

Q	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. Source (B/ M / N)	7. Status (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	3												N	~~E~~ S	Revision 0: Since ABN0RRC-LOSS allows for using one SRV in 200 psig increments, can argue that B is also a correct answer. I would eliminate the CRS direction from the stem. Seems confusing to give a 400 psig band but direct using BPVs in 200 psig increments. Revision 1: Removed CRS direction from the stem. Revised question to ask for the strategy for RPV pressure control following loss of both RRC pumps and the reason this strategy is employed. Eliminate the 2x2 in the question and ask both parts in one part. Revision 2: Removed two part answers and asked in a single part; Re-arranged distractors according to length: Swapped A and B, swapped C and D; C is now the correct answer. **Question now SAT**
2	H	3												N	~~E~~ S	Revision 0: Is it necessary to put initial fan lineup in stem? Distractor D discussed running 3 fans until steam tunnel temperature returns to normal, but there is no information in the stem regarding abnormal temperatures. Distractors A and B should start with ONLY, and change "Both" in distractors C and D to ONLY. Revision 1: Added bullet in stem listing running RRA fans. Revised distractors as requested. During steam operations, two RRA fans must be run to maintain steam tunnel temperatures. A loss of one fan will cause steam tunnel temps to rise. This is expected knowledge. Don't believe that high temperature condition should be added to stem since this would invalidate distractor C. Added information in the technical references concerning this. **Question now SAT**

Q	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. Source (B/ M / N)	7. Status (U /E /S)	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist	Partial	Job-Link	Minutia	# / Units	Back ward	Q – K/A	SRO Only			
3	H	2												N	~~E~~ S	Revision 0: REFERENCE PROVIDED IN STEM Change distractor C to state, "Scram the reactor and trip the main turbine to automatically transfer to S1-7 to TR-S." No need to state before this capability is lost. Then swap distractors B and C. This should still be short to long, and it keeps the two scram distractors together and the two manual actions together. That then makes B the correct answer. Revision 1: Revised distractor C to state, "Scram the reactor and trip the main turbine to automatically transfer SM-1 and SM-3 to TR-S." S1-7 is not transferred to TR-S. This makes C a little longer than distractor B. Therefore, propose maintaining distractors in their current positions and retaining C as the correct answer. **Question now SAT**
4	H	2												M	~~E~~ S	Revision 1: Is it correct to say reactor power DUE TO rising pressure? The attached reference says to minimize the increase in reactor power and pressure. Revision 2: This is a correct characterization for the reason for power rising. TS 3.3.4.1 bases states, "The physical phenomenon involved is that the void reactivity feedback due to a pressurization transient can add positive reactivity at a faster rate than the control rods can add negative reactivity." Added TS Bases as a technical reference to the question. **Question now SAT**
5	F	2												B	S	Revision 0: REFERENCE PROVIDED IN STEM, March 2009 NRC Exam
6	F	2												B	S	Revision 0: There is an extra space before "-147" in distractor A Revision 1: Removed extra space from distractor A.
7	H	2												B	S	Revision 0
8	F	3												M	S	Revision 1 (Free review): You included the wrong bank question that this was modified from. It was modified from SRO-21 from the October 2009 NRC Exam. Revision 2: Replaced parent question

Q	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. Source (B/ M / N)	7. Status (U /E /S)	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist	Partial	Job-Link	Minutia	# / Units	Back ward	Q – K/A	SRO Only			
9	H	4												N	S	Revision 0: The K/A Match statement is incomplete Revision 1: Completed K/A Match statement
10	H	2												N	~~E~~ S	Revision 0: The question does not ask which action should be taken FIRST, and the fuel bundle eventually has to be moved somewhere, so distractors B or C may also be correct. I do not want to ask "which is performed first" because that makes the answer too obvious. Not a fan of description in distractor B about minimizing contamination in the RPV. Wouldn't contamination be preferred in the RPV over the spent fuel pool? Revision 1: Revised question stem to state “no radiation monitors in alarm” and that CRS has entered ABN-FUEL-HAND. Revised B,C,D. Reordered distractors from shortest to longest. Answer remans ‘A’. Revise question to ask, “What action should be taken in accordance with ABN-FUEL-HAND.” Revision 2: Revised as recommended. **Question now SAT**
11	F	2												N	~~U~~ S	Revision 0: This question overlaps Question 92 in the SRO section. Either this question or Question 92 needs to be replaced. This question discusses pressure only. There is no reference to wetwell level. Candidates must know that an ED is required when PSP is exceeded. SRO-92 requires candidates to know that an ED is required based on WW level only. At the given level, an ED is required at any WW pressure. Additionally, SRO-92 does not mention PSP by name. Rather, candidates must know what this limit protects against. **Question SAT after discussion with the station. Some work needs to be done on the distractor analysis for question 92.**

Q	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. Source (B/ M / N)	7. Status (U /E /S)	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist	Partial	Job-Link	Minutia	# / Units	Back ward	Q – K/A	SRO Only			
12	F	3												N	~~E~~ S	Revision 0: Question the operational validity of this question. Why wouldn't narrow range instruments be used? Level band is in the range of narrow range and is calibrated for the same conditions as the upset range. Revision 1: Added condition in stem stating that Narrow Range RPV level is not available. **Question now SAT**
13	H	2												B	S	Revision 0: REFERENCE PROVIDED IN STEM, 2013 NRC exam. Pedigree lists N/A for last NRC exam, however this was question 1 in the 2013 NRC Exam. Revision 1: Revised last NRC exam to 2009
14	H	2												N	~~E~~ S	Revision 0: Question 13 cues that part 2 of distractors A and C are incorrect. By providing the HCTL graph in question 13, it is easy reference to note that the HCTL is based on wetwell parameters and the question is asking about drywell temperature. Two implausible distractors, however not counted UNSAT since it is only one part of two distractors. Revision 1: Revised part 2 of distractors A and C to be drywell design temperature. Distractor B is now the correct answer. **Question now SAT**
15	H	3												B	~~E~~ S	Revision 0. Part 1 of distractors A and B are not plausible. There is no information in the stem indicating that you are in PPM 5.1.1. The stem does not even indicate that the plant has been scrammed. Part 2 of distractor C is listed as (3). Two implausible distractors, however not counted UNSAT since it is only one part of two distractors. Revision 1: Revised stem to state that PPM 5.1.1 is entered and a manual reactor scram performed. **Question now SAT** Revision 2: Swapped distractors A & B and distractors C & D due to length of 2nd half of each distractor. This makes D the correct answer.

Q	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. Source (B/ M / N)	7. Status (U /E /S)	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist	Partial	Job-Link	Minutia	# / Units	Back ward	Q – K/A	SRO Only			
16	F	4												N	~~E~~ S	Revision 1: REFERENCE PROVIDED IN STEM. Is the imbedded reference showing part of PPM 5.1.2 necessary to answer the question? The imbedded reference is used to denote that the question is asking about the second level lowering. Could revise to just show step L-7. **Question now SAT** Revision 2: reordered distractors by length. D is now correct.
17	F	3												N	S	Revision 0
18	H	3												N	S	Revision 1 (Free review). Distractor A analysis is incorrect. States that "Plausible since ROA-V-2 will be closed. However, ROA-V-1 will remain open." Should be "Plausible since ROA-V-1 will be closed. However, ROA-V-2 will remain open." Revision 2: Revised plausibility statement as recommended
19	H	3												N	~~E~~ S	Revision 2 (Free review): REFERENCE PROVIDED IN STEM. Distractor A not plausible. The stem states operators verified at least one fire pump is running, but distractor A shows no pumps running. Revision 3: Revised stem to state that operators are "checking fire pump operation" **Question now SAT**
20	H	3												N	S	Revision 0
21	H	2										X		N	~~U~~ ~~E~~ S	Revision 0: Does not meet the system K/A of low reactor water level. Protecting the pump low net positive suction head is from low ΔT. Revision 1: Replaced question using original K/A. Distractor analysis for answer A states, "Since RRC pumps are running at 15 Hz …" Should be "… running at 57 Hz …" Revision 2: Corrected explanation as recommended. **Question now SAT**

Q	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. Source (B/ M / N)	7. Status (U /E /S)	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist	Partial	Job-Link	Minutia	# / Units	Back ward	Q – K/A	SRO Only			
22	F	2												N	~~E~~ S	Revision 0: Could argue that C is the only correct answer. Noting what PPM 5.0.1 states about terminating drywell spray, the actual EOP, 5.2.1 states securing drywell spray BEFORE dropping below 1.68 psig, therefore B is incorrect. Technically C would be correct because 12 psig is the only answer that is BEFORE falling below. The stem states performing in accordance with 5.2.1, thus it would have to be done before. The EOP required drywell pressure for securing drywell sprays is BEFORE drywell pressure drops below 0 psig. Therefore the lowest pressure to secure sprays by the EOP is 0 psig. The number in parentheses (1.68 psig) is the drywell pressure where sprays are expected to be secured by the station. This expectation is codified in OI-15 (see technical reference attached to question worksheet). The wording in P-10 does not apply to the station expectation. Therefore, the expectation is to secure sprays at 1.68 psig, not BEFORE 1.68 psig. **Question SAT after discussion with the station.** Revision 1: As discussed during validation week, revised question to ask "In accordance with OI-15, EOP and EAL Clarifications, when should drywell spray be secured?
23	H	2												N	~~E~~ S	Revision 0: Header indicates question is Tier 1 / Group 1; it is actually Tier 1 / Group 2. Distractor A analysis states that the plant is in mode 1, but the reactor has scrammed. It also mentions you are not in EOPs, but the stem indicates you are in 5.2.1, which is an EOP. Concerned that one could claim A is also correct. Reorder distractors D-A-C-B (short-to-long) such that A is the correct answer Revision 1: Revised question to Tier 1 Group 2. Reordered distractors as recommended. Revised distractor B analysis. **Question is now SAT**

Q	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. Source (B/ M / N)	7. Status (U /E /S)	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist	Partial	Job-Link	Minutia	# / Units	Back ward	Q – K/A	SRO Only			
24	h	3											X	N	~~U~~ S	Revision 0: Header indicates question is Tier 1 / Group 1; it is actually Tier 1 / Group 2. Is the bullet stating reactor power is 100% necessary? The stem already states the plant has returned to full power. I question whether this is RO level of knowledge, since part 2 comes from the ABN bases. Revise K/A to AK2.07 Revision 1: Revised K/A to AK2.07; Revised question to ask (1) where does power peak and (2) which AOP should be entered; Correct answer is now D. **Question now SAT**
25	H	3												B	~~E~~ S	Revision 0: I don't see the significance of 450 psig at 1230. The distractor analysis for distractor D seems to be describing the plausibility of 1203 as a distractor, which would be the case if steam dome pressure were below 900 psig. Revision 1: Revised distractor D to say charging header pressure 895 psig, to make distractor plausible. Revise distractor B to state "… transition to …" Revision 2: Revised distractor B to say and transition to PPM 5.1.2, RPV Control – ATWS **Question now SAT**
26	H	2												B	~~E~~ S	Revision 0: Question 5 cues that B is not correct. In question 5, all distractors have at least 2 rods above 00 and one of those answers MUST be correct, therefore one can eliminate B. According to distractor analysis A, there is no correct answer, because it states 5.1.1 is not entered and 5.1.1 is in every distractor. Not marking Unsat for no correct answer, because I believe 5.1.1 will be entered for RPV level. If that statement is incorrect, the question is Unsat. Revision 1: Revised stem to specifically state that RPV level has lowered below +13 inches, which is an entry condition for PPM 5.1.1. Modified bullet to state that one rod is at 48 and another rod is at 02. **Question now SAT**

Q	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. Source (B/ M / N)	7. Status (U /E /S)	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist	Partial	Job-Link	Minutia	# / Units	Back ward	Q – K/A	SRO Only			
27	F	2												N	S	Revision 0: REFERENCE PROVIDED IN STEM Change level of difficulty to 2. While the plausibility descriptions are accurate, the question is fairly easy since it seems obvious the instrument has failed and the first thing you would do is verify operability. Revision 1: Revised LOD
28	F	3												N	~~E~~ S	Revision 0: I think the question is a bit harder than LOD 2, please change to 3. I am confused about distractors A and B, and where the 1 second comes from. The stem states SM-7 and SM-8 are reenergized at t=0, and the reference material states RHR-P-2C will start immediately and the other pumps with a 5-second delay. It is true that RHR-P-2C will receive a start signal at t=0 and RHR-P-2A will receive a start signal at t=5, but the question is asking the earliest time that the pump will be running. I do this since it takes a finite amount of time for the pump to start once it gets a signal plus it allows the use of round numbers (see plausibility for distractors C & D). If it is preferred, I can ask when the pump gets a start signal. The distractors then become 0, 5, 9.5, 19.4 Revision 1: Revised LOD as recommended **Question now SAT**
29	F	2		X										N	~~U~~ S	Revision 0: The fact that RHR is included in item (3), it cues the correct answer. Can you see just say Group 6 with not noun name? I would think they would know what a Group 6 was from memory. Revision 1: Revised to remove name of Group 6 **Question now SAT**

Q	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. Source (B/ M / N)	7. Status (U /E /S)	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist	Partial	Job-Link	Minutia	# / Units	Back ward	Q – K/A	SRO Only			
30	F	3												N	~~E~~ S	Revision 0: REFERENCE PROVIDED IN STEM I think the question is a bit harder than LOD 2, please change to 3. Could argue that B is a correct answer. ARP for window 6-3 states "consider" starting the LPCS pump, it is not a requirement. I would imagine that the CRS could also "consider" pulling the control power fuses. Revision 1: Revised LOD as recommended. Revised question to ask "What is the preferred action to mitigate this event for current plant conditions? Although pulling control power fuses is an action that may be taken, it is not the preferred action since it renders LPCS inoperable. Starting the pump is preferred since LPCS remains operable and may be used immediately in an emergency. Additionally, pulling control power fuses is only mentioned in the ARP for the low discharge pressure alarm, which is not alarming for the conditions given. Revised plausibility statements. Preferred is not defined, so that doesn't repair the question. Revision 2: Removed preferred from the question; Revised distractor B to remove control power fuses from LPCS-P-1 and RHR-P-2C, which is the wrong RHR pump; Swapped distractors B and C according to distractor length. **Question now SAT**
31	F	2				X								B	~~U~~ ~~E~~ S	Revision 0: Change cognitive level to memory or fundamental. Simply recalling a setpoint. I think all of the incorrect distractors are not credible. Distractor A because if it closes at level 8 and opens at level 8, the valve would cycle. Distractors B and D because since HPCS has already injected, it is not credible to believe anything other than level would cause it to open again. Aren't levels 1, 3 and 4 credible? Revision 1: Revised LOK to M/F. Revised distractors to RPV Level 1, 2, 3, 4. Change answers to get rid of the word "setpoint" and get rid of the actual levels in the answers. Question now EDIT. Revision 2: Revised distractors as recommended. **Question now SAT**

Q	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. Source (B/ M / N)	7. Status (U /E /S)	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist	Partial	Job-Link	Minutia	# / Units	Back ward	Q – K/A	SRO Only			
32	H	2												N	~~E~~ S	Revision 0: If the plausibility of distractors are based on knowing whether there is a cross connect valve, then part 2 of distractor C should probably be only B pump injecting. Revision 1: Revised part (2) of distractor C to SLC-P-1B. **Question now SAT**
33	F	2												N	~~E~~ S	Revision 0: Since the stem includes A1 and A2, I think the question is improved by adding B1 and B2 and changing the distractors. Distractors C and D should be OR. The question could be interpreted that you have to simultaneously press A1 and B2 AND A2 and B2 (four buttons). The reason for the current selection of buttons is: (1) Same trip system, different division. (2) Different trip system, same division, (3) Same trip system, same division. This tests the candidates understanding that either division's button on different trip systems must be pressed simultaneously to cause a scram. Revision 1: To preclude the belief that all buttons must be pressed, added "When considered separately" to the question. Add a 4th (4) B1 B2 to have a combination of 4 answers. Revision 2: Revised distractors as recommended. **Question now SAT**
34	F	2												B	S	Revision 0
35	F	2												B	S	Revision 0: Reorder distractors C-D-A-B (short to long, A to B) such that C is the correct answer. Revision 1: Revised as recommended.
36	H	4												B	S	Revision 0
37	F	3				X								N	~~U~~ S	Revision 0: Distractors C and D not plausible. It is not plausible to think you would shut a suction valve to an operating pump before establishing a new suction source. Additionally, distractor D states RCIC-V-31 will automatically close, even though it is already closed. Revision 1: Revised distractors C and D such that RCIC-V-10 is off its open seat, not closed. This is plausible since the suction source is never removed. Rearranged distractors – A is now correct. **Question now SAT**

Q	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. Source (B/ M / N)	7. Status (U /E /S)	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist	Partial	Job-Link	Minutia	# / Units	Back ward	Q – K/A	SRO Only			
38	H	3												B	S	Revision 0: REFERENCE PROVIDED IN STEM March 2009 NRC Exam. What is the purpose of providing drywell pressure indication? Drywell pressure is provided as a second indication of a LOCA, to establish that there are no indication issues. However, the statement that a small-break LOCA has occurred should be sufficient to establish that RPV level indication is accurate. Drywell pressure indication should not detract from the question but may be removed. Revision 1: Drywell pressure removed
39	H	3												N	S	Revision 0: I think enough analyses goes into the question to make it higher order cognitive. Revision 1: Modified LOD as recommended
40	H	2												N	~~E~~ S	Revision 0: What is the significance of 9 minutes? Can the stem state something like when the plant reaches steady state, to take out any objectivity on the time? Revision1: Revised as recommended. Change to say indicated level Revision 2: Revised as recommended **Question now SAT**
41	F	3												N	~~E~~ S	Revision 0: The way the question is structured, part 2 is not part of the actual question in the stem (first paragraph). Consider the following: The (1) level instrument provides input to the Startup Level Controller (RFW-LIC-620) to control RPV level during low power level operation, and (2) compensated for density changes in the RPV. Revision 1: Revised as recommended Question now SAT
42	H	2												N	S	Revision 0: There is an inadvertently hard return before (2) in the stem. Revision 1: Removed hard return
43	H	2												N	S	Revision 0: Need a space before "2" in third overall bullet (Ashe Breaker No. 2) Revision 1: Added space
44	H	2												B	S	Revision 0: REFERENCE PROVIDED IN STEM
45	H	2												N	S	Revision 0
46	F	2												N	S	Revision 0

Q	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. Source (B/ M / N)	7. Status (U /E /S)	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist	Partial	Job-Link	Minutia	# / Units	Back ward	Q – K/A	SRO Only			
47	F	2												M	S	Revision 0: This is a modified bank from the 2015 NRC Exam (question 25). Exact same distractors, changed compressor in the stem Revision 1: Revised question type to Modified Bank and attached parent question.
48	F	2												B	S	Revision 0
49	H	2		X										B	~~U~~ ~~E~~ S	Revision 0: REFERENCE PROVIDED IN STEM Header indicates question is Tier 1 / Group 1; it is actually Tier 2 / Group 2. This should be bank question. Not significantly modified from parent. All that was done was include annunciators, no change to distractors or correct answer. This question is sat on its merits, but it does overlap question 30, even though it involves two different systems. By acknowledging starting the LPCS pump, that identifies water hammer as the concern. After discussion with the station and other examiners, determined the question did not overlap with question 30. However, still need to change the header information and change to a bank question. Revision 1: Revised as recommended **Question now SAT**
50	H	2												B	S	Revision 0
51	H	2												N	S	Revision 0
52	H	2												B	S	Revision 0: REFERENCE PROVIDED IN STEM The question is not significantly modified from the parent to be called modified. Simply changed the fours distractors from text to pictures. I would recommend using the original bank question. I find the pictures difficult to read, and it looks very cluttered. Revision 1: Revised to the original bank question
53	H	3												N	~~E~~ S	Revision 0: REFERENCE PROVIDED IN STEM. Stem should include that the plant is at 100% power since distractors A and reference Revision 1: Revised as recommended **Question now SAT**

Q	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. Source (B/ M / N)	7. Status (U /E /S)	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist	Partial	Job-Link	Minutia	# / Units	Back ward	Q – K/A	SRO Only			
54	H	4												N	~~E~~ S	Revision 0: REFERENCE PROVIDED IN STEM The question is okay as written, however, it does not meet the 1021 guidance for A2 K/A questions. From ES401-D.2.a, "When selecting or writing questions for K/As that test coupled K/As (e.g., the A.2 K/A statements in Tiers 1 and 2 and a number of generic K/A statements, such as 2.4.1, in Tier 3), try to test both aspects of the K/A statement. If that is not possible without expending an inordinate amount of resources, limit the scope of the question to that aspect of the K/A statement requiring the highest cognitive level (e.g., the (b) portion of the A.2 K/A statements) or substitute another randomly selected K/A. Revision 1: Randomly selected K/A 201001.A2.02 and replaced question to meet new K/A. **Question now SAT**
55	F	2												N	~~E~~ S	Revision 0: REFERENCE PROVIDED IN STEM Remove the reference. This question should be answered from memory without the aid of illustrations Revision 1: Removed reference as recommended **Question now SAT**
56	H	2												N	S	Revision 0
57	F	2												B	S	Revision 0: REFERENCE PROVIDED IN STEM
58	H	3												M	S	Revision 0: This appears to be a modified bank from 2017 NRC exam, question 59. Revision 1: Revised as recommended
59	F	2												N	S	Revision 0
60	H	3											X	B	S	Revision 0: REFERENCE PROVIDED IN STEM I believe this question is SRO level of knowledge. Station confirms it is RO level of knowledge
61	H	2												N	S	Revision 0

Q	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. Source (B/ M / N)	7. Status (U /E /S)	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist	Partial	Job-Link	Minutia	# / Units	Back ward	Q – K/A	SRO Only			
62	H	2												B	~~E~~ S	Revision 0: It is not credible to think that taking the switch to raise will have no effect at all, eliminating distractor A. The plausibility for distractor A is the same as for distractor B. With the Main Generator connected to the grid, raising the voltage adjuster will not appreciably raise output voltage but Generator reactive load will rise (more reactive load in the "Out" direction). With the generator not connected, output voltage will rise while reactive load will remain constant at 0. A candidate may erroneously determine that, since reactive load doesn't change, voltage won't change. An additional path is to ask for the change in real and reactive load. Then 'A' would be correct. Revision 1: Revised plausibility statements to reflect discussion above. Concern is still that would not have a switch manipulation with NOTHING happening. Revision 2: Revised part (2) or distractor A to read "increase in the "IN" direction"; Reordered distractors. Correct answer is D. **Question now SAT**
63	F	2												B	S	Revision 0 2019 NRC Exam, Prior 2 Exams
64	F	2												B	S	Revision 0 2017 NRC Exam, Prior 2 Exams Pedigree lists N/A for last NRC exam, however this was question 44 in the 2017 NRC Exam. I request that the question be structured the same as the 2017 version, as it is easier to read. Revision 1: Revised as recommended.
65	F	3												B	S	Revision 0: REFERENCE PROVIDED IN STEM
66	F	2												N	S	Revision 0
67	H	2												N	S	Revision 0: Swap distractors B and C, thus making C the correct answer. Revision 1: Revised as recommended

Q	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. Source (B/ M / N)	7. Status (U /E /S)	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist	Partial	Job-Link	Minutia	# / Units	Back ward	Q – K/A	SRO Only			
68	F	2												N	~~E~~ S	Revision 0: All control rods fully inserted seems to obvious. I would replace that with Less than the required number of operable SRMs. Additionally, one could argue item (1) is correct, since PPM 6.3.2 states, "Should bundle movement outside of the coordinate system be required ... access to the upper drywell should be restricted ..." First paragraph in stem should start, "Core refueling is in progress ..." Second paragraph in stem is missing the word "move." Revision 1: Revised (2) as recommended; Revised 1st and 2nd paragraph as recommended; Revised (1) to read " No personnel allowed in the entire drywell. **Question now SAT**
69	F	2												B	S	Revision 0
70	H	3												N	S	Revision 0
71	H	3												M	~~E~~ S	Revision 0: This question should be modified bank from 2017 NRC exam, question 72. The stem does not specify if the entry is into the drywell, in case there is no correct answer. According to SOP-ENTRY-DRYWELL, SM, RPM, and PGM permission are all required in that case. Revision 1: Revised question to specify that the area is in the Reactor Building Revision 2: Revised to Modified from 2017 question #72 **Question now SAT**
72	H	2												N	S	Revision 0
73	H	2		X										N	~~U~~ S	Revision 0: This question is too similar to question 26. Would prefer this one be replaced rather than question 26. After further discussion with licensee and reevaluation of the two questions, they are distinct enough to not be overlap. Though the questions have the same set of distractors, the answers are different, as are the initial conditions. The question is thus determined to be SAT.
74	H	2												N	S	Revision 0: Swap distractors A and B, and swap distractors C and D, making A the correct answer. Revision 1: Revised as recommended

Q	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. Source (B/ M / N)	7. Status (U /E /S)	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist	Partial	Job-Link	Minutia	# / Units	Back ward	Q – K/A	SRO Only			
75	H	2												B	S	Revision 0: This is a bank question from the 2013 NRC Exam question 95. Though some parameters were changed and slightly different distractors, the changes were not substantial enough. The submitted question worksheet shows this as a Bank question - #LO01730 Revision 1: Revised to list use on 2013 NRC exam.
76	H	3												N	S	Revision 0
77	F	3												N	S	Revision 2 (Free review)
78	F	2												N	~~E~~ S	Revision 0: For distractor A, state to "stop" instead of "secure" the affected RRC pump to match the verbiage in the procedure Revision 1: Revised as recommended **Question now SAT**
79	H	3										X		B	~~U~~ S	Revision 0: REFERENCE PROVIDED Questionable K/A match since the K/A is refueling accident, and the stem states the plant is in mode 1. Additionally, distractor B is not plausible. Using the reference, one can eliminate it because there are no items in the EAL table. **(I am not opposed to SRO-24 from the 2011 exam.)** **Revision 1: Replaced question with SRO-24 from 2011 exam.** **Question now SAT**
80	H	3												N	~~E~~ S	Revision 0: Request swapping parts 1 and 2 such that you are asking "The CRS should direct lowering pressure using DEH in (1) per procedure (2). The way it is written, I think it is too easy to eliminate 5.1.1, but written the other way it is not. Revision 1: Revised as recommended. **Question now SAT** Revision 2: Reordered distractors. Correct answer is now B.

Q	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. Source (B/ M / N)	7. Status (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												N	~~E~~ S	Revision 0: The way the stem is written, one could interpret "what action is used to combat exceeding the limit" to mean, "what actions prevent exceeding the limit" or "what actions are performed once the limit is exceeded." If one takes the first interpretation, then I believe C is also correct. If one takes the second interpretation, then I think it is RO level of knowledge to know you ED once HCTL cannot be maintained. Additionally, distractor A analysis states that a higher wetwell level gives more margin where I believe a lower level gives more margin. Revision 1: Replaced question. Distractor A should have some pressure or pressure band since all the other distractors contain pressures. The distractor analysis for C does not make sense. It talks about lowering pressure but given the stem and the words in distractor C, not pressure reduction would be required. Revision 2: Added a pressure band to distractor A. Modified distractor explanation accordingly; Clarified answer B explanation; Modified distractor C explanation as recommended. **Question now SAT**
82	H	3											X	N	~~U~~ ~~E~~ S	Revision 0: REFERENCE PROVIDED IN STEM RO level of knowledge. ± 2 inches is entry condition into the EOP, which is RO level of knowledge. Suppression pool level requirement is above the line tech spec information, which is also RO level of knowledge. Additionally, the stem states that CGS is in mode 2, but all of the distractor analyses discuss being in mode 3. Revision 1: Replaced question. I struggle with part 1 of distractors C and D because it does not seem plausible that pressure suppression function would not be maintained prior to a scram. Is it possible that part A be something from the bases? Something like it exists as long as main vents are covered, etc? Revision 2: Modified as recommended **Question now SAT**

Q	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. Source (B/ M / N)	7. Status (U /E /S)	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist	Partial	Job-Link	Minutia	# / Units	Back ward	Q – K/A	SRO Only			
83	H	3												N	~~E~~ S	Revision 0: I believe part 2 of distractor B and D are easily eliminated. Even though the scram is indirectly inserted from the turbine trip, I think both feedwater pumps tripping is easily eliminated since a scram will actually occur. Two implausible distractors, however not counted UNSAT since it is only one part of two distractors. Revision 1: Revised question to ask 1, the thermal limit of concern and 2, which automatic action causes a scram to mitigate effects on the thermal limit. **Question now SAT**
84	F	3												M	S	Revision 0: This question should be a modified bank of question 85 from the 2017 exam. Pedigree is missing the 55.43 reference. I believe it should be 2 Revision 1: Revised as recommended Revision 2: Revised order of distractors. C is now correct.
85	F	3												N	~~E~~ S	Revision 1 (Free review): Struggle with A being plausible since D states the door cannot be opened and the stem states no time to remove floor plugs. If door could be opened, it would not be necessary to remove floor plugs. Any way to flip the information and put "the door can't be opened" in the stem and information regarding the floor plugs in distractor D? Revision 2: Modified as recommended. **Question now SAT**
86	H	3												N	S	Revision 1 (Free review): REFERENCE PROVIDED
87	H	2												N	S	Revision 0: REFERENCE PROVIDED IN STEM
88	H	3												N	S	Revision 0

Q	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. Source (B/ M / N)	7. Status (U /E /S)	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist	Partial	Job-Link	Minutia	# / Units	Back ward	Q – K/A	SRO Only			
89	H	~~4~~ 3												N	~~U~~ S	Revision 0: REFERENCE PROVIDED. Question is direct lookup (LOD 1) if the reference is provided. All one needs to do is find the two listed actions (verify temp and not in equalize) and see that the verify temp time is shorter. I believe this to be a fair question without providing the reference. Since the question is asking what is required first, not specific times, I think it is reasonable to expect an SRO to answer this question without the LCS being provided. Revision 1: Modified question to remove the reference and modified distractors. **Question now SAT**
90	H	2												N	S	Revision 0
91	H	3												B	S	Revision 0: REFERENCE PROVIDED Why isn't A correct? Isn't it possible to restore trip capability without placing a channel in trip? i.e. repairing the instrument? This distractor is in reference to LCO 3.3.1.1 which directs restoring trip capability for a function (ie – high pressure scram). This action is taken if a trip will not occur from either RPS trains. This is plausible since two pressure switches have failed. However, the stem states that after MS-PS-23A failed, all required TS actions were completed; which means that this instrument was placed in TRIP per action A.1. This action restores the trip capability for the specific train. When MS-PS-23D fails, the trip capability for the function is not lost. Therefore distractor A (LCO condition C) is not applicable and action C.1 does not need to be performed.
92	H	2												N	S	Revision 0 (Free review) Revise the distractor analysis to justify the ED is because of the level leg of the EOP Revision 1: Revised as recommended
93	H	3												N	S	Revision 0: Worksheet states A is the correct answer yet distractor analysis states B is the correct answer. B is the correct answer. Revision 1: Revised to show answer is B

Q	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. Source (B/ M / N)	7. Status (U /E /S)	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist	Partial	Job-Link	Minutia	# / Units	Back ward	Q – K/A	SRO Only			
94	H	3												N	~~E~~ S	Revision 1: I would prefer to see IRMs on a mix of ranges 7 and 8 rather than 9 or 10 (assuming ALL IRMs must be on range 8), or a mixture of ranges 8 and 9. Revision 2: Revised IRM ranges to mixture of 8 and 9 **Question now SAT**
95	F	2												N	S	Revision 0: 55.43 reference should probably be 7 Revision 1: Revised as recommended
96	F	2												N	S	Revision 1
97	H	2												N	S	Revision 0: REFERENCE PROVIDED IN STEM Very close to LOD 1, as the question is not testing much more than recognizing what mode the plant is in. Change LOD to 2 Revision 1: Revised as recommended
98	F	2												N	S	Revision 0
99	F	2												N	S	Revision 0
100	H	2												N	S	Revision 1 (Free review)