

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				
<p>General comments:</p> <ul style="list-style-type: none"> • 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. • Highlighted blocks indicates changes NRC recommends to the submitted question. • Too many instances of LOD 4. There should be very few LOD 4 questions on exam, and generally none that are fundamental level of knowledge or tier 3. Question LODs were based on data provided from validations performed. The LOD of a question was subjectively measured at CPNPP in the past resulting in incorrect overall examination LOD. For this exam, data was utilized based on validation results to show the actual LOD of examination questions in an objective manner. NUREG-1021, Appendix A states: “A fundamental knowledge question may be easy (e.g., how many inches are in a foot) or difficult (e.g., in what year was the printing press invented).” Could not find anywhere in NUREG-1021 that stated a Tier 3 question could not be an LOD=4. All LODs changed as directed on exam. • Not meeting Tier 1 guidance means: Does not contain information in procedures, selection of procedures, progression of event, or assessment of plant response over several systems or safety functions, per Feedback Item 401.55. Feedback 401.55 was discussed with CE during the Initial Facility Contact. The guidance provided by the CE at that time was that this “New NRC Guidance” from Feedback 401.55 was not being enforced yet and as long the question met the K/A it would be acceptable. 																	
<p>Refer to Section D of ES-401 and Appendix B for additional information regarding each of the following concepts:</p> <ol style="list-style-type: none"> 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: <ul style="list-style-type: none"> • “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: <ul style="list-style-type: none"> • “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). 																	

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1	F	3					X									M	E S	<p>I question whether there is a correct answer, since the note in Tech Spec 3.4.5 allows for all RCPs to be secured for ≤ 1 hour so zero is actually the minimum. The stem of the question clearly states "An RCS dilution is in progress." Performing a dilution violates the required conditions of the Note in the Tech Spec. Therefore, RCPs are not allowed to be removed from operation. Could argue that A and B are both correct. It appears to me that if you commenced emergency boration, you would meet the intent of the note in the tech spec. The purpose of the Note is to perform tests that are required to be performed without flow or pump noise. This test is generally performed in MODE 3 during the initial startup testing program, and as such should only be performed once in the life of the plant unless there changes made to the RCS that may cause adverse flow characteristics. The Note is in Tech Specs to allow for testing. It is NOT in Tech Specs to allow the plant continued operation outside of LCO requirements due to the trip of an RCP (as stated in the question). Attempting to meet the requirements of the Note after an RCP trip is not ONLY wrong because of the information provided above but would also be a violation of Tech Specs. The requirements of the Note were not met before the RCP trip as a dilution was in progress. Attempting to meet the requirements of the Note after the RCP tripped is not allowed (i.e. both conditions of the Note must be met prior to securing RCPs). Therefore, attempting to emergency borate to meet the requirements of this note is clearly wrong and would be a violation of Tech Specs. However, it is plausible because an examinee could believe emergency boration is an option based on attempting to incorrectly meet the Note. Four operable RCPs in mode 3 is not plausible. Four operable RCPs in Mode 3 is our normal configuration. Very rarely do we ever have Inoperable RCS Loops in Mode 3. 5 validators missed this question by selecting 'C' as the correct answer. You can answer this question by</p>

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			Stem Focus	Cues	T/F	Cred. Dist	Partial	Job-Link	Minutia	# / Units	Back ward	Q – K/A	SRO Only				
																	covering up all of the information in the stem. This is an incorrect statement as the question is currently written, especially based on your comments above...the fact that an RCS dilution is in progress is key information for the examinee. Swap distractors A and B, and C and D such that part 2 reads short-to-long, making B the new correct answer. Fixed as directed. LOD should be 3. LOD fixed as directed, however, question LODs were set based on validation results. This question was validated by 14 operators and 7 missed the question. This results in a 50% pass rate and an LOD of 4. Question now SAT
2	H	3												M	S		
3	F	2											X	B	S		What design limits could be exceeded, in order to meet the K/A? Per Design Basis Document ME-260, the design limit of each RHR pump is 3800 gpm which is tested in the second part of the question. DBD ME-260 has been added to the references for the question. Also slightly changed the wording of Part 1 to incorporate the word design. This is not a comprehensive LOK question. Fixed as directed. LOD of 4 is too high, should be 2. Fixed as directed.
4	H	3												N	E S		Would it be better to say there was no transfer to XST1? Stating the transfer was slow seems very subjective. At CPNPP Slow transfer is not a subjective term but a definitive term used in our procedures to identify when a bus will transfer and all downstream loads will deenergize and then be brought back in a deliberate manner. The term fast transfer is also used to identify a transfer in which downstream loads will not deenergize. Added a reference to ABN-601 to show where the term slow transfer is used. Updated question to eliminate overlap concerns with question 15. Removed references to XST1 and XST2. Question now SAT
5	H	2											X	B	E S		Going solid to establish a bubble doesn't seem like it would ever be preferred. We have a section in SOP-101A to fill the PRZR solid and then draw a bubble. We would use this method if a vacuum

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																	was not drawn. Refer to SOP-101A, Section 5.6 for the alternate method. Where are the operation implications required to meet the K/A? The operational implication is that matching charging and letdown is required to either raise PRZR level or maintain level constant depending on the method used to draw a bubble. The procedure step doesn't reference adjusting let down so there isn't a true answer to the question. Step 5.5.2.B requires Letdown flow be established from RHR. Swap distractors B and C. Fixed as directed Question now SAT
6	H	2												N	E S		I fail to see how a trip of SSWP 1-01 is plausible, especially since the cause of the low pressure could be, and likely is, an issue with SSWP-01. Did not count as Unsat despite two implausible distractors, since it for one part of a two-part question Changed the second part of the question to state that a trip of SSW Pump 1-02 and then ask examinee if a Reactor Trip ONLY is required or a Reactor Trip and Trip of ALL RCPs is required. Reactor Trip ONLY is plausible because CCW Pump 1-02 is still running. With CCW Pump 1-02 still running is plausible to believe that RCP cooling remains intact. Question now SAT
7	H	3												N	S		
8	H	2											X	B	U S		Does not meet the K/A, as nothing in the question deals with effects on RPS, only really recognizing if a TSLB indicator will light. We disagree. The TSLB is not just a light. It is an indication provided to alert the operator of the status of the Channel's input to RPS (sensor or detector). When a TSLB lights, it is showing the trip status of the detector input to RPS. The TSLB lights are the only means the operator has to determine the status of RPS in the Control Room. The relay being tested is physically located within the input bay of RPS. Do any transmitters fail high when tripped by I&C? Don't they all usually go downscale? Changed first part of question to what is the indication vs the failed position. The examinee

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																	must understand that placing the NMT switch in CLOSED also disconnects the detector from the indication, otherwise, it would indicate the value of the failure if the detector were still connected. Refer to the 7300 process drawing in references to show details. Question now SAT
9	F	3												B	S		This is not a comprehensive LOK question, as the correct answer is a direct quote out of an ABN. Fixed as directed. LOD of 4 is too high, should be 3. Fixed as directed.
10	F	4												M	S		I do not see in the provided reference material that the correct answer for part is necessarily intermediate range. It is obviously not narrow range, but why could it not be wide range? ODA-407 does not specify an instrument to use. Either Intermediate Range or Wide Range could be used but only intermediate range is provided as a choice.
11	F	2											X	B	U S		This is Q11 from 2015 NRC exam, not noted on question history. Though it was used on a prior NRC exam, it is still listed as UNSAT because the bank question was written to an adequate K/A. Does not meet K/A as there is nothing in the question about predicting or monitoring changes in CS pump cooling. Simply asking cooling sources. This is not a comprehensive LOK question, as it is simply asking two cooling sources. Constructed new question which addresses issues of not meeting K/A Question now SAT
12	H	4				X								B	U S		Distractor A is of the "none of the above" type, and distractor D is of the "all of the above" type. Appendix B of NUREG 1021 states, "Do not use 'all of the above' or 'none of the above.'" Slightly changed the wording of distractors to eliminate the none of the above and all of the above concerns. Question now SAT
13	F	2												B	U S		The stem should somewhere state that you are in FRH-0.1A. Fixed as directed Question now SAT

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14	F	3												M	E S	Distractor D is a "nothing happens" answer which should not be used. Slightly modified part 1 of distractor C and D to address nothing happens issue. Question now SAT
15	H	3		X										M	U S	Question 4 cues that XST2 is the normal transformer for Unit 1, thus eliminating distractors A and B. Revised Question 4 to eliminate overlap concerns. Question now SAT
16	F	3												B	S	This is Q53 from 2015 NRC exam, not noted on question history. This seems close to SRO level knowledge, however, it was asked on the RO portion of the 2015 exam, so the station is acknowledging that it is RO level of knowledge. Noted on question history.
17	F	2												B	E S	Distractor B not plausible since if you are meeting tech specs, why would one think the EDG would not start? Slightly adjusted part 2 to eliminate concern with choice B. Question now SAT
18	H	2												B	E S	I fail to see the plausibility in decreasing power would lead to an increase in N-16. Did not count as Unsat despite two implausible distractors, since it for one part of a two-part question. Changed part 1 incorrect distractor to stabilize to address plausibility issue. Swap distractors B and D, making D the correct answer. Fixed as directed Question now SAT
19	H	3												B	S	Swap distractors A and B, making A the correct answer. Fixed as directed. LOD of 4 is too high, should be 3. Fixed as directed. Question now SAT
20	H	3												B	S	
21	F	B											X	B	E S	Not counted as UNSAT since it was used on previous NRC exam (2012). No correct answer. According to IPO-010B, containment integrity is not required immediately upon a loss of RHR cooling, but before boiling occurs after a loss of RHR cooling. Does not meet the K/A, as there is no loss or malfunction of the containment system,

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																	as required by the K/A. Wrote new question to meet K/A Question now SAT
22	F	3												B	S		LOD of 4 is too high, should be 3. Fixed as directed Question now SAT
23	F	2					X							B	U S		A is also correct because the question is not bound by time. Since thermal barrier return temperatures are increasing, 1HS-4691 and 1HV-4709 will eventually close. Changed question to present tense to eliminate future closing of a valve causing a second correct answer. Swap distractors A and B. Fixed as directed Question now SAT
24	F	3												B	S		LOD of 4 is too high, should be 3. Fixed as directed Swap distractors C and D, making D the correct answer. Fixed as directed
25	H	2												B	S		
26	H	4										X		M	U S		Does not meet the K/A, as nothing in the question deals with effects on AFW pump, but reactor power. The stem stated that the TDAFW Pump MSL 4 steam supply valve indicated open. This was intended to be a failure of the valve in the open position. Changed wording to indicate valve had failed open. This results in the TDAFWP speed increasing which is the effect of the failure of a component of the MRSS causing an AFW pump to start. Could argue that part 2 of the question in SRO-level of knowledge since it is testing depth of procedure. At CPNPP ROs are trained to treat this situation similar to an Initial Operator Action. The ROS are trained NOT to trip the TDAFWP in this case but to initially attempt to close the MS Supply valve to the TDAFWP to prevent entering a 72 hour TS vs a 7 day TS. Question now SAT
27	H	2	X											B	U S		Not enough information in the stem to answer the question. FRS-0.1A establishes greater than 860 gpm total AFW flow until SG levels are greater than 43% (50% adverse containment). No information in the stem on SG levels. Added a 4th bullet in stem to state that all SG Narrow Range

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																	Levels are off-scale low. This eliminates the possibility of being able to throttle down on AFW flow. Question now SAT
28	H	2												B	S		
29	H	4											X	B	U S		Nothing in the question is meeting the system response of reactor coolant. It is asking the effects of S/G level due to a pump trip. Wrote new question to meet K/A. Question now SAT
30	H	2												N	S		Reorder distractors D-C-B-A short-to-long, making D the correct answer. Fixed as directed
31	H	2												N	E S		Part 1 is too obvious making part 1 LOD=1. Yellow is better than green since the wrench icon is yellow. (Would actually prefer the question asking about the wrench icon instead of the check mark icon. Could make the question a higher LOD.) Changed Part 1 of distractors A and B to yellow. Overall LOD in not 4, should be 2. Fixed as directed Question now SAT
32	H	2												B	S		
33	F	2												B	S		This is not a comprehensive LOK question, as the correct answer is statements out of an ABN. Fixed as directed. Swap distractors B and C making B the correct answer. Fixed as directed
34	F	3												B	U S		Distractors C and D cancel each other out, since the only way to close the check valve is to stop the pump. Thus, for D to be correct, C would also be correct. This narrows the answer to A and B. Deleted the word "check" from distractor C to eliminate C and D from cancelling each other out. Swap distractors A and B, short-to-long, making B the correct answer. Fixed as directed Question now SAT
35	H	3												B	E S		Distractor A is a "nothing happens" answer which should not be used. Slightly changed all question choices to eliminate the "nothing happens" issue. Question now SAT

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36	F	2											X		B	U S	Does not meet the K/A of automatic operation of the stop/governor valves. Question asking EOP steps in case they don't close. Changed 1st part of the question to better match the K/A. Question now SAT
37	F	5													B	E M S	It is not plausible to think MSIVs would remain open if you lost a condenser. Did not count as Unsat despite two implausible distractors, since it for one part of a two-part question. Disagree, CPNPP has other systems in place to protect the Main Condenser such as the C-9 interlock and the closing of the HP Stop Valves on the Turbine Trip. Remember that a Reactor Trip always causes a Turbine Trip, so when the reactor is tripped the turbine will trip and close the HP Stop Valves. Also, the section for a loss of Main Condenser vacuum does not require the MSIVs to be closed lending even more plausibility that the MSIVs could remain open. Question now SAT
38	F	2													B	E M S	A could be argued as a correct answer since rising temperature could result in rising pressure, and vice versa. A better way to ask this question is to provide many CET temps, Th, Tc and RCS pressure values and ask what the SMM should read. (See Wolf Creek 2017 exam question 59.) Better fit to the K/A. Added verbiage in Part 2 of the stem to assume that all other parameters will remain stable. This eliminates concern with A being a possible correct answer. Question now SAT
39	H	3							X						N	U S	Not a tier 1 question. Since the question states there is a LOCA, it is not plausible to think pressure would be increasing. Question could be approached by providing parameters and selecting procedures. Created new question to ask same principles but more in-line with Tier 1 K/A requirements. Not LOD 4, should be LOD 3. Fixed as directed Question now SAT
40	H	3							X						M	U S	Not a tier 1 question. Added a 2nd part to the question to ask the action required in the ERG for the conditions provided. Not a modified bank question. The only thing really changed from the

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																	parent is gpm to lbm/hr. The math is the same, as are the answers. Question is now modified as a second independent part was added. Not LOD 4, should be LOD 3. Fixed as directed. Question now SAT
41	H	3												M	S		Not LOD 4, should be LOD 3. Fixed as directed
42	H	3												B	E S		This is Question 91 from the 2018 NRC Exam (not noted on question history) Prior 2 NRC Exams. Modified question to add a separate ABN vice using EOP-0.0A and changed the correct answer to ensure proper modification. Distractor D not plausible, as you are already in mode 4. Find another plausible ABN and add bullets to the cue to enhance its plausibility. Slightly modified bullets and changed distractor D to a separate ABN. Not LOD 4, should be LOD 3. Fixed as directed Question now SAT
43	H	3						X						B	U S		This is Question 2 from the 2017 NRC Exam (not noted on question history). Modified question based on comments below. Not a tier 1 question, as this is simple automatic actuations of a system. There appears to be enough information in ABN-104 to salvage this as a tier 1 question. Created a new 2nd part to question asking at what temperature action is required per the ABN to better meet Tier 1 requirements. Not LOD 4, should be LOD 3. Fixed as directed Question now SAT
44	H	2												B	E S		This is Question 88 from the 2009 NRC Exam (not noted on question history). I fail to see how D is not correct. If pressure lowers to less than 2185 and the PORV is not closed, then it would be prudent to trip if "it remained open." That implies it will not close. Wrote new question asking about spray valve controller failure to eliminate overlap with Scenario 2 event 1. Question now SAT
45	F	2												B	E S		Part 1 is too obvious making part 1 LOD=1. Swap distractors C and D. Unable to make Part 1 not LOD=1 and there was also JPM overlap.

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																	Replaced with a separate bank question. Overall LOD in not 4, should be 2. Fixed as directed.
46	H	2												B	S		
47	H	2												B	S		Prior 2 NRC Exams (2018) Does the LC-27 Retake exam count as one of the prior two? Yes. Swap distractors B and C. Fixed as directed. LOD of 4 is too high, should be 3. Fixed as directed
48	F	2						X						M	U S		Not a tier 1 question. Created new question to incorporate Tier 1 requirements. Question now SAT
49	F	2												B	S		
50	H	2												B	S		This seems close to SRO level knowledge, however, it was asked on the RO portion of the 2013 exam, so the station is acknowledging that it is RO level of knowledge. Swap distractors A and D. Fixed as directed, however, replaced Distractor D due to overlap with JPM S-4
51	H	3						X						N	U S		Not a tier 1 question. First part in pretty generic, second part is a power supply question. Created new question to better meet Tier 1 requirements. Question now SAT
52	H	2												B	S		This is Question 6 from the 2018 NRC Exam (not noted on question history) Prior 2 NRC Exams Does the LC-27 retake exam count as a previous exam? Annotated on worksheet.
53	F	2						X						B	U E S		Not sure there is a correct answer. If you are stating in part 1 that you have lost instrument air, which results in the failure of TDAFWP speed controller, you have to acknowledge that you have lost the instrument air valves in the main feed system, and will have a total loss of main feedwater, and the reactor will have already tripped. Even if this is not the case, it is what makes C and D part 2 distractors poor. Disagree the premise of the question is testing whether an examinee has the knowledge to understand that MFW Flow control valves cannot be controlled without Instrument Air. It could be thought that the MFW flow control valves have accumulators similar to the AFW Flow Control valves. Updated

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																	plausibility of Distractors B and D part 2 to reflect this information. Swap distractors B and C. Fixed as directed. Question now SAT
54	H	3						X						M	U S		Not a tier 1 question, this is simply a system response question. Modified question to implement Tier 1 requirements. Question not LOD 4, should be 3. Fixed as directed Question now SAT
55	H	3						X						N	U S		This is not a tier 1 question, since the only part of the question asking about actions in a procedure aren't really contained in the procedure. The question gives the procedural direction to depressurize, the only thing part 2 is questioning is if you realize steam dumps are not available following a main steam line isolation. Adjusted question to meet Tier 1 requirements Question now SAT
56	H	3												B	E S		Not convinced that B can't be argued to be correct. While FRH-0.1A RNO for letdown isolated does state use the PORVs, it gives the option to use aux spray if you have to and is described in bases as well. Don't want to have normal spray as an option, because I think that is too obvious. Perhaps "preferred?" Added preferred to part 2 Question now SAT
57	H	2						X						N	U S		Not a tier 1 question. Part 1 is automatic system response, part 2 is system level knowledge. Developed new part 2 to question to better meet Tier 1 requirements. Question now SAT
58	F	2												N	E S		I am not sure part 2 is phrased correctly, since there is actually adequate level at about 20%. The distractor analysis implies that part 2 is asking if you know the tech spec limit, which is different than having adequate volume. Rephrased Part 2 of the question to eliminate the SDM portion and just ask the TS level. Question not LOD 4, should be 2. Fixed as directed Question now SAT
59	H	3												N	E S		Stem states at 100% power and a normal shutdown has completed; can't be both. The stem should say something like, "Unit 1 was

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			Stem Focus	Cues	T/F	Cred. Dist	Partial	Job-Link	Minutia	# / Units	Back ward	Q – K/A	SRO Only				
																	shutdown from 100% power. Current plant conditions are XXX" if those are intended to be the current conditions. Modified as directed (slightly different but fixed the issue noted) . You need to give a trend on pressurizer level. Fixed as directed . This is a questionable match to the K/A because is asking for the REASONS for actions contained, but I will let it stand. Would you use IPO-003A for the shutdown since you have to reduce power to < 50% in one hour and be in mode 3 in the next 2 hours? Yes . Is there an emergency power reduction procedure? No we just use a briefing sheet (OPGD 3 Attachment 6D) that tells the operators how to implement that section of the IPO . Swap distractors A and B; and C and D; making C the correct answer. Fixed as directed . Question not LOD 4, should be 3. Fixed as directed . Question now SAT
60	F	2						X						B	U S	This is Question 88 from the 2009 NRC Exam (not noted on question history). Annotated on exam Not a tier 1 question. This is system level knowledge. Part 2 of the question is action required from CPNPP Alarm Response procedure for the given conditions. Added ALM procedure to the beginning of Part 2 of the question to make Tier 1. Question now SAT	
61	F	3											X	B	U S	Does not meet the K/A. The question has nothing to do with control room evacuation when the questions is asking about components in the control room. Resampled for new K/A as CPNPP does not have PAM instrumentation outside the Main Control Room. Wrote new Tier 1 question for K/A 068.G.2.4.34. Updated 401-4 and 401-2 to match new K/A. Question now SAT	
62	F	2												B	S		
63	H	2												B	E S	Secondary heat sink is not a parameter. Deleted the word parameter . Reorder distractors D-B-A-C, making C the correct answer. Fixed as directed 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			
64	F	4												B	S	Swap distractors B and D making D the correct answer Fixed as directed
65	F	2												B	S	Swap distractors C and D making D the correct answer Fixed as directed
66	F	2												N	S	OWI's do not seem plausible to have a potentially irreversible impact on safety when they don't operate equipment Disagree, per ODA-407, Attachment 8.D (reference provided), there are a few examples of OWIs that are Continuous Use Procedures which makes this a plausible distractor.
67	F	2												M	S	
68	F	2												B	S	This question is closer to LOD 1 than LOD 4 Changed LOD to 2
69	F	2												M	S	Not a new question. This is modified from 2017 NRC exam, Q69. Updated worksheet to reflect a modified question. Included modified question in references.
70	F	2												N	S	This question is closer to LOD 1 than LOD 4 Changed to LOD 2
71	F	2												B	E S	Part 2 distractors are LOD=1 Slightly modified part 2 of the question to eliminate the LOD=1 concern. Question is now modified bank. Question now SAT
72	H	2												B	E S	Stem may be confusing. Even though it specifically says without administrative extension or PSE, STA-655 does state the escorted worker needs "appropriate authorization." Changed part 2 of the question to eliminate asking the limit for escorted rad worker based on the plausibility issue with choice C. Now asking emergency limit to save a life. Distractor C is not plausible. Does not make sense that an escorted rad worker's DDE could be twice as high as an employee's TEDE. Changed part 2 of the question to eliminate asking the limit for escorted rad worker based on the plausibility issue with choice C. Now asking emergency limit to save a life. I don't necessarily agree with 4000 mrem being plausible because it "used to be," since it has been 2000 mrem for at least 10 years. I will agree with the

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				
																	plausibility since it the PSE value. Updated plausibility analysis to fix this comment. Question now SAT
73	F	3												B	E S	Since up until April of 2018 the maximum background was 300 cpm, change the stem such that background is 275 cpm. Does not change answer but makes the question a little more challenging. Fixed as directed. The answer on first page indicates D is the correct answer, distractor analysis describes A. Should be A. Fixed on to indicate correct answer on worksheet. With requested change to background radiation in the stem, this question would be LOD 3. Fixed as directed Question now SAT	
74	H	2												B	E S	Is there any correct answer? Distractor C states following an inadvertent SI," so would ERGs even apply? Yes, Inadvertent SI would require progression thru the ERG network and ultimately performing the SI Termination procedure EOS-1.1, therefore C is the correct answer (now D based on comment below) Swap distractors C and D, making D the correct answer Fixed as directed Question now SAT	
75	F	2												B	S	Reorder distractors C-D-A-B short-to-long, making D the correct answer. Fixed as directed	
76	H	2												M	S		
77	H	2												N	S	Part 2 for distractors B and D are not plausible, because there are no control functions associated with Hi-3. Despite the flow chart, I expect and RO to know this ... Disagree, essentially the comment is stating if a piece of information is wrong it's not plausible. This question is testing whether an SRO knows the reason why the Hi-3 actuation logic has a unique configuration. There are many other examples of logic with 2 out of 4 coincidence (including the logic provided for Low PRZR pressure) that have both protection and control functions which makes it a plausible choice. Some other examples include MSL pressure, PRNIs, and N-16. This question meets	

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				
																	SRO-only requirements by requiring specific knowledge from the TS Bases documents. Question now SAT
78	H	3					X							N	U S		No correct answer. ECA-1.1A does not say the containment fan coolers CANNOT be started. It states that if pressure exceeded 5 psi, it should be evaluated whether they can be started. So given the provided parameters, containment fan coolers COUL be started. Slightly modified stem to include the requirement to consult plant staff in order to restart. Question not LOD 4, should be LOD 3. Fixed as directed Question now SAT
79	H	3											X	B	U S		Part 1 is obviously RO level of knowledge, and I believe part 2 is as well. The easiest way to rectify this is to use question 80 from the 2020 retake exam and retain the LOD 2. I expect an RO would also know it, but it is more easily defensible as an SRO question. Fixed as directed. Question now SAT
80	F	3												B	E S		This is Question 89 from the 2017 NRC Exam (not noted on question history). The question is further flawed by the addition of "emergency air lock is not available." Therefore, if entry via outer door were not allowed, there would be now way to fix the inner door without going to mode 5, which is unreasonable. Slightly modified stem as well as what was being asked on Part 2 of the question to address this concern and the concerns with RO level noted below. Additionally, this question should not have been counted as SRO level in 2017. The information allowing use of the door is a note in tech spec 3.6.2, which is above the line information. Additionally, I would expect any operator, licensed or not, to know requirements for an emergency containment entry. Slightly modified part 2 of the question to require knowledge specifically from the bases of TS 3.6.2 (and not contained in the RO knowledge area). Not an LOD 4 question. Question now marked as LOD=3. Not counted as UNSAT since this was an SRO question on a previous NRC exam.

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				
																	Question now SAT
81	F	4												N	S		Is it possible to find two more weights and make this a 1x4 question? 2150 pounds is good as it is in the TRM bases. There are no other weights in the TRM to come up with a 4th distractor. Just an FYI, this is all above the line TRM information, and since TRMs are treated the same as Tech Specs in the NUREG, I discussed with my peers whether this should be RO level of knowledge. We agreed that Tech Specs carry a different level of significance and decided ROs should not be expected to know TRMs from memory. Questionable LOD 4, but TRMs are not as known as Tech Specs. Question now SAT
82	H	3											X	M	U S		This question is asking the impact on the plant due to a trip of a condensate pump, not an impact on the condensate system, as required by the K/A. Question modified to better address issue with K/A. Question was a part of the 10 question pre-review with no comments. Not LOD 4, should be 3. LOD changed to 3. Question now SAT.
83	F	2												X	N	S	This is overall mitigative strategy, and thus RO level of knowledge. Disagree, the question is not asking if these procedures can be utilized to conduct a plant cooldown. The question is asking if under the given conditions provided, should the US use EOS-0.2A or ABN-803 to conduct the cooldown. This is specific information contained only within the body of ABN-803 (not contained in EOS-0.2A) and therefore is counted as knowledge only required by SROs.
84	H	3												M	S		
85	H	2												B	S		
86	F	3											X	M	S U		Does not meet the K/A. Would recommend looking at question 77 from 2013 exam. Changed Question to 2013 NRC Exam Q77. Not LOD 4, should be 3. Question changed to LOD=3 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			
87	H	2												B	S	Question history says LC25. I think it was LC24 Fixed as directed
88	H	3												B	S	Not LOD 4, should be 3. Fixed as directed
89	H	2										X		M	U S	The tech spec part of the question does not meet the K/A which needs to apply to the loss of heat sink. It is asking irrelevant of the condition of the plant Adjusted part 2 of the question better address Tech Spec requirements specifically related to a loss of heat sink. Question now LOD 3 Question now SAT
90	H	3										X		N	S C	The question is asking about a loss of HV, not an improper setting of HV. Adjusted question to state the SRHV power supply was improperly set. LOD set to 3 Question now SAT
91	F	2										X		B	S	Does not meet K/A as these are not immediate actions. Probably need a new K/A Disagree, the K/A does not state "immediate actions." It states "procedures that require immediate operation of system components and controls." The question is asking about a refueling accident and components that should be immediately operated to ensure the health and safety of the public.
92	H	3												M	S	Not LOD 4, should be 3. Fixed as directed
93	H	4												B	S	No tier 3 question should ever be LOD 4, should be 3. Fixed as directed (however Q93 is Tier 1 not Tier 3)
94	F	4				X								B	U S	Not plausible to think an RO would not be required to monitor source range instruments with fuel in the vessel, and it is not plausible to think this is an RP function. Wrote new question to directly ask responsibility of Fuel Handling Supervisor (SRO)
95	F	3												M	S	
96	F	2												M	S	

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			
97	F	3												B	E S	Need to reword the question or find a replacement for distractor B. One could easily argue that declaring it inoperable is proper. Added a qualifier to distractor B to ensure not correct. No tier 3 question should ever be LOD 4, should be 3. Fixed as directed Question now SAT
98	H	2												M	S	
99	H	3												B	S	
100	F	2												B	S	