#### **Facility: LASALLE COUNTY STATION**

-	1.	2.	3	3. Psych	nometr	ic Flaw	s	4.	Job Cont	tent Fl	aws	5. C	)ther	6.	7.	8.
Q#	LOK (F/H)	LOD (1-5)	Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only	B/M/N	U/E/S	Explanation
1	Н	2												N	¥	Chief: None.  Licensee review changes: Removed portion of question associated with RX power and replaced with RPV level. Remove indications of RR pump trip and just stated that pump tripped and how does indicated RPV level and indicated total core flow compare to actual level and flow after 5 minutes.
2	F	3	×											N	E	Chief: In this instance the loss of the 'A' RPS bus will result in a containment isolation signal to the outboard containment isolation valve for RWCU (RT) 1G33-F004. The valve is also powered from 135X1 so its MOV will have no power to close. This means the RT system (PCIS Group V) will not actually isolate. Therefore, answer B is not correct. I see a couple of options to go with this question, one we can test the containment isolation logic for Group V vs. what will actually happen to the RT system valves based on the given conditions perhaps in a 2x2 question format. The other option is to compare a loss of RPS 'A' vs. RPS 'B'. A loss of RPS 'A' just results in the outboard PCIS valve going closed, whereas a loss of 'B' RPS results in a complete inboard and outboard isolation. The logic for this is shown on big notes PC-3 and is mentioned in the PCIS study guide/student notes.

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 (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 (i.e., 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, 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 stem).
- 4. Check the appropriate box if a job content error 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 that are designated "SR-only." (K/A and license-level mismatches are unacceptable).
- 6. Enter question source: (B)ank, (M)odified, or (N)ew. Verify that (M)odified questions meet criteria of 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).

	1.	2.	3	3. Psych	nometi	ric Flaw	s	4.	Job Cont	tent Fl	aws	5. 0	Other	6.	7.	8.
Q#	LOK (F/H)	LOD (1-5)	Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		SRO Only	B/M/N	U/E/S	Explanation
															¥	When creating your stem if there is a system abbreviation it is best to identify it in the stem so that it is not repeated through all four answers. For example, if we focus on the RWCU system, at LaSalle its abbreviation is RT. So, spell out reactor water cleanup and put RT in parenthesis so that RT can be used subsequently.  Author Response: Changed question to test nature of Group V isolation, specifically that A RPS closes outboard isolation valve and B RPS closes both outboard and inboard isolation valves.  Technical Reviewer: This question stills has a couple of flaws to address for the question to be considered SAT.  1) There may not be a direct tie to the K/A and only a weak tie to the TIER 1 objective. Although the question asks what the RT PCIV response would be to a loss of power to portions of the Gr V logic, it does not tie to the reasons for requiring (or not requiring) a Containment Isolation on the loss of AC power. To meet the TIER 1 objective, the "integrated plant response" should involve more than MOV response to a loss of logic power, since there is no reference to, or selection of, an abnormal procedure or procedure basis.  2) Distractor "C" is not plausible since both parts (1) and (2) have the same resulting response. Recommend changing Distractor "B" to list only "F001 will close" in part (2), and Distractors "C" & "D" to list only 1 valve in each part.  3) The stem question should be reworded to illicit a correct answer and only 1 correct answer, i.e. "Which of the following responses will the (RT) containment isolation valves (Group V)" and change distractors to read as "will close."  Question changed to remove confusing distractor language regarding valves remaining open. Question focuses on general impact of a loss of power to RPS A vice RPS B and its effect on containment isolation.  Licensee review changes: Question only asks about how the RWCU GPV inboard and outboard PCIVs are affected by a loss of RPS B power.
3	Н	3	X											N	¥	Chief: Based on plant conditions immediately following the Scram, the reactor will be pressurized above the shutoff head of the LPCS pump. Of the answer options, LPCS will be the only pump which itself or its components will be energized so I can see how the other answers cannot be correct. The actual pump which will be used to maintain level in these exact conditions would be the 'A' TDRFP or HPCS powered by the 2B EDG with DC electrical power from the Div III 125 VDC battery. Perhaps the stem can be reworded to ask based on the conditions given which will be the only pump available to inject.  Wording adjusted to indicate which pump would be available to use.

	1.	2.	3	3. Psycl	nometr	ric Flaw	s	4.	Job Conf	tent FI	aws	5. C	Other	6.	7.	8.
Q#	LOK (F/H)	LOD (1-5)	Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		SRO Only	B/M/N	U/E/S	Explanation
																Licensee review changes: Changed KA to systems necessary for safe shutdown and added a LOCA to the event, RPV pressure at 450 psig and lowering, and what system operated from the control room
																Chief: None.
															¥	LaSalle 2008 NRC Exam  Technical Reviewer: This guestion is a good K/A and TIER 1 objective match. Based
4	н	2												В	s	on NUREG-1021 Rev 11 requirements, the Distractor analysis must do more to justify the "Plausibility" of the proposed distractors than just repeat the "Correct Answer." Need to include a line that addresses why the misconception would be plausible.
															•	Restated justifications for the distractors to address plausibility.
																Licensee review changes: Replace reactor trip with reactor scram and increase/decrease with rise/lower
_	Н	3												N	¥ S	<u>Chief</u> : None.
5	П	3												IN	3	Licensee review changes: Replaced distractor C with Bypass MSIV Isolations IAW LGA-MS-101. Moved procedure names to front of answer/distractors.
															¥	Chief: None.
6	F	2												В	s	<u>Technical Reviewer</u> : This question is a great K/A and TIER 1 objective match. May consider reformatting to match other 2 x 2 questions in the current exam.
																Question formatted to be similar to other 2x2 questions.
7	Н	2												N	¥ S	<u>Chief</u> : None.
															₩4	<u>Chief</u> : Question restructured to assess knowledge of how to recover power supply for the '0' Station Air Compressor.
8	Н	3												N	S	Licensee review changes: Changed to Unit 2 SAC OOS in stem with editorial changes. Distractor C moved to Distractor A. Clarified statements for distractors and answer to address potential subset issues.
9	Н	3	Х											N	.,	Chief: The stem should indicate that the reactor is in Mode <u>3</u> at the start of the transient. When in Mode 5, the head is at least detensioned if not removed. It is not possible/likely that pressure would exceed the 140 psig in this condition. In Mode 3 when pressure is < 100 psig you can start shutdown cooling.
															s	Stem modified to indicate the unit is in Mode 3.

	1.	2.	3	3. Psych	nometr	ic Flaws	S	4.	Job Conf	tent Fl	aws	5. C	Other	6.	7.	8.
Q#	(F/H)	LOD (1-5)	Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only	B/M/N	U/E/S	Explanation
10	F	2												В	s	Chief: Question was changed to focus on what the main risk to plant personnel and how the plant responds to a fuel handling accident.  PREVIOUS 2 EXAMS: LaSalle 2016 NRC Exam  Licensee review changes: Transitioned part 2 of question to original bank question from LaSalle 2016 ILE.
11	F	3												N	¥ s	Chief: None.  Licensee review changes: Editorial changes to stem and answer choices focusing greater attention on TS entry
12	Н	2												N	¥4 <b>S</b>	Chief: Changed question to create a high pressure scenario which results in SRV operation and then an assessment of RPV Level indication to better conform to the KA statement.  Licensee review changes: Editorial changes to stem.
13	н	3					x					×		N		Chief: Distractor 'A' can be considered a partially correct answer as the stem does not indicate reactor pressure. Specifically, the 42A/B injection valves do not open until a LOCA signal present (high DW pressure, Lo Lo RX water level, manual initiation) AND reactor pressure is < 500 psig AND pressure between the injection valve and the injection check valve is < 500 psig. If pressure is still > 500 psig in the reactor the 42A/B will be closed and the spray flow would be permissible. Lets also talk about the KA. A LOCA in containment implies heat input to the suppression pool but it seems the KA is looking to discuss actions for operating SP spray with hot water in the SP.  Question changed to a 2x2 with the applicant expected to report the next procedural actions (1) to cool the suppression pool water as it is heated by the LOCA and (2) initiate suppression pool spray to address high containment pressure. This addresses the concern for the KA match ensuring high temperature in the suppression pool is addressed and design basis was added to the stem so that it is clear that RPV pressure is below 500 psig and then LPCI injection valves will be open.  Licensee review changes: Added RPV pressure and INJECTION OVERRIDE Switch
14	F	2												Z	¥4 S	position in the stem  Chief: Adjusted distractors to be EOP transition points to other contingency EOPs. The transition points were plausible as they would require adding water to the RPV or containment to correct or were associated with a "flooded containment".  Licensee review changes: Distractor B changed to high SP temp above HCTL to avoid having to provide curves for plotting based on original parameters.
15	F	2												N	¥	Chief: None.

	1.	2.	;	3. Psycl	hometr	ic Flaws	s	4.	Job Cont	tent Fl	aws	5. C	Other	6.	7.	8.
Q#	LOK (F/H)	LOD (1-5)	Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		SRO Only	B/M/N	U/E/S	Explanation
															S	
16	Н	2	x			х								N		Chief: Stem was adjusted to conform with writing style on other questions. Included Detail AC in the stem. RO candidates are expected to know mitigating strategy of EOPs not to have specific details memorized. Distractors B and D were an inverse way of answering in the same context. Distractors changed to test the knowledge of different aspects of the stem information provided. This is a new question as it goes beyond a modified bank question requirements.  REFERENCE PROVIDED: LGA-001, "RPV Control" Detail AC Licensee review changes: Editorial changes to stem.
17	Н	3												N	¥ s	Chief: None.  Licensee review changes: Added EPNs and component names to Answer A and Distractor C.  Answer A and Distractor C had label plate information added to the equipment position number information based on an applicant question during exam administration.
18	н	3												В	¥4 <b>S</b>	Chief: LaSalle 2000 NRC Exam Licensee review changes: Added PCIS Group 4 for VG start to and editorial changes to stem. Adjusted distractor B to RCS to off gas to eliminate potential partially correct answer.
19	н	2												N	¥ S	Chief: None.  Licensee review changes: Added ONLY to Distractor A and Answer C to avoid a potential subset with Distractors B and D.
20	F	3												N	∀4 S	Chief: To align with Tier 1 requirements, focused question on plant response to over-excitation and operator actions.  Licensee review changes: Editorial changes to stem. Added that the VR would remain in AUTO to distractor C.
21	Н	3	×											N	₽ ¥ S	Chief: Power level in the stem does not match that in the distractor analysis. Stem should indicate no operator action taken as LOA-EH-201 would require a manual Scram to be inserted with more than 1 TCV failing closed.  Power level in the stem changed to match distractor analysis and a statement indicating no operator action added to stem.  Licensee review changes: EHC system was expected to recover from t CVs failing closed slowly. Question changed to 2 MSLs with MSIVs failed closed to show how pressure surge results in power increase and eventual scram on APRM power level.
22	Н	3												N	₩4	<u>Chief</u> : Restructured question to present an ATWS condition with a high drywell temperature. Tests applicant's ability to assess which EOP note or caution would be applicable based on plant conditions.

	1.	2.	;	3. Psych	nometr	ic Flaw	s	4.	Job Cont	tent Fl	aws	5. 0	Other	6.	7.	8.
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															S	Licensee review changes: Changed question to focus on reason for EOP Note not to use VP during LOCA conditions.
23	н	2	х											N	Ð	Chief: A stuck open SRV will not result in rising reactor power on a BWR. Note the expected plant conditions listed in LOA-SRV-101. As the SRV opens, steam header pressure will decrease causing the control valve to close to maintain pressure. Reactor power is expected to remain relatively constant as generator MWe decreases due to the loss of steam to the turbine. Steam generation in the reactor remains constant since control rod position and RR flow aren't changing therefore, nuclear power is constant. Steam use in the turbine is down as some of the generated steam is going to the suppression pool causing TCVs to close down to maintain pressure resulting in Mwe decreasing.  Question stem changed to address LOA-RD-101 actions and their reasons for a mispositioned control rod regarding thermal limits.  Licensee review changes: Added RR FCVs for power reduction answer and distractor.
24	F	3												N	¥4 \$	Chief: Focused question completely on the LaSalle LER scenario. Asked about how integrated plant operations were affected by a fault in the main steam system with particular emphasis on an unplanned containment isolation. GREAT RESEARCH ON THE LER.  Licensee review changes: Changed question due to concerns of an overlap with Q21. New question focuses on an MSIV closure if no action taken following a VR supply fan trip due to steam tunnel DT.
25	Н	2												М	¥ s	Chief: None.  Modified: Original question gave indications of a pump trip and asked about general system impacts. Modified question asks about impacts on CRD Accumulators.  Distractors and answer is changed focusing on impact on accumulators.
26	F	2												В	<del>√5</del> <b>S</b>	Chief: River Bend 2014 NRC Exam Licensee review changes: Editorial changes to stem.
27	Н	2	x											N		Chief: Why is VR tripping off and VG not auto starting based on initial conditions? Where did you note that there is a difference between units? Looking at the ARP for 1H13-P601-E306 the setpoint indicates 4 mrem/hr, the training notes indicate 10 mrem/hr, and the big notes indicate 8 mrem/hr. There is clearly something amiss with their own understanding of the plant but nothing indicated a difference between units. Bottom line unless there is a fault with the initiation logic if rad conditions cause VR trip then VG should have auto started.  Question stem changed to test the actions of LOA-VR-201 with regards to high secondary containment differential pressure and the whether SBGT auto starts or requires manual operation to restore DP conditions.  Licensee review changes: Added annunciators for tripped VR fans and VR damper positions.

	1.	2.	3	3. Psych	nometr	ic Flaw	s	4.	Job Cont	tent Fl	aws	5. C	Other	6.	7.	8.
Q#	LOK (F/H)	LOD (1-5)	Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only	B/M/N	U/E/S	Explanation
28	F	2												N	<del>V</del> 5 <b>S</b>	Chief: Adjusted distractor C to 1 hour associated with initiating action per LCO 3.0.3 REFERENCE PROVIDED: Tech Spec 3.5.1 with above the line information and less than or equal to 1 hour required actions and completion times blank Licensee review changes: Changed distractors B and C to be LCO required action times which are less than 1 hour associated with LCOs 3.1.5 and 3.4.11.
29	Н	3												М	<b>∀</b> \$	Chief: None. Modified: Stem parameters for Shutdown Cooling were changed specifically RHRSW flow rate and RPV Level. In addition distractors were changed and since RHRSW flow was changed this resulted in a new correct answer.  LaSalle 2012 NRC Exam  Licensee review changes: Changed flow in 1B RHR SDC loop to 6250 gpm to ensure Distractor A is not a partially correct answer. Final changes: RHR flow to 4000 gpm and RHRSW flow to 9500 gpm. Distractor D tests knowledge of RHR flow needed to avoid the min flow valve from opening and sending RCS inventory to the Suppression pool.
30	F	4												N	<del>V</del> 5 <b>S</b>	<u>Chief:</u> Adjusted the question to focus on power supply for a pump in the system. The original question was focused on whether an annunciator should have come in based on conditions. It is close to minutiae and close to a backwards logic question.
31	Н	2												N	<del>√2</del> <b>S</b>	Chief: None. Licensee review changes: Added to plant conditions due to LOCA and editorial changes to stem.
32	Н	3												В	<del>√5</del> <b>S</b>	Chief: River Bend 2000 NRC Exam Licensee review changes:
33	Н	2												N	<del>∀2</del> <b>S</b>	Chief: None. Licensee review changes: Added reactor pressure and additional annunciator status, adjusted HPCS flow for high pressure conditions, and added should be left in standby for greater separation between Distractors 'C' and 'D'.
34	Н	2												M	<del>√5</del> S	Chief: Modified from LaSalle question bank.  Modified: Modified question stem asks about SBLC and RWCU systems response to an initiation of SBLC instead of just SBLC response. As such answers and distractors have changed.  Licensee review changes: Editorial changes to stem and answers.
35	F	3												N	<del>√2</del> S	<u>Chief</u> : None. Licensee review changes: Fixed MCR panel for annunciator and editorial change to stem.
36	Н	2												В	<del>√6</del> <b>S</b>	<u>Chief</u> : Changed question to address overlap with Q21.
37	F	3												В	<del>∀2</del> <b>S</b>	Chief: None. Fermi 2015 NRC Exam

	1.	2.	(	3. Psych	nometr	ic Flaws	S	4.	Job Conf	tent Fl	aws	5. C	Other	6.	7.	8.
Q#	LOK (F/H)	LOD (1-5)	Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only	B/M/N	U/E/S	Explanation
																Removed the word "placed" following Reactor Mode Switch based on a question asked by a applicant during exam administration.
38	Н	3				Х								Ν	<del>∨6</del> <b>S</b>	<u>Chief</u> : None. <u>Technical Reviewer</u> : Distractor A inplausible. <u>Licensee review changes: Editorial changes to stem and answers.</u>
39	н	3					X							В	€ <del>V2</del> S	Chief: Distractor 'D' is too close to the correct answer. Only 4 increments difference on an IRM range scale, especially since the stem asks what will the IRM approximately read? I recommend you have 'D' be 35/40 on Range 7. This would be plausible if the applicant thought that the number of increments the previous scale was exceeded directly translated to the next range. Specifically, on the 3 <sup>rd</sup> doubling you get 160/125 on Range 6 which could be assumed translates to 35/40 on Range 7.  Distractor 'D' changed to 35/40 with corresponding distractor analysis added.  Licensee review changes: Editorial changes to stem and reordered answers to put them in order of ascending values.  Columbia 2006 NRC Exam
40	F	2												В	<del>√6</del> <b>S</b>	Chief: None. Licensee review changes: Changed SRM INOP to Downscale.
41	F	3												N	<del>√2</del> <b>S</b>	Chief: None. Licensee review changes: Changed roman numerals to Arabic numerals.
42	Н	2												В	<del>√5</del> <b>S</b>	Chief: LaSalle question bank. Licensee review changes: Editorial changes to stem.
43	Н	3												В	<del>√2</del> <b>S</b>	Chief: Changed level to -150" to cover the big notes NB-1 diagram Level 1 initiation signal of -147". This value differed from the training notes value of -137". Licensee review changes: Editorial changes to stem.
44	Н	2												N	<del>√5</del> <b>S</b>	<u>Chief</u> : None. Licensee review changes: Editorial changes to stem.
45	F	3												N	<del>∀2</del> <b>S</b>	Chief: None.  Licensee review changes: Editorial changes to stem.
46	Н	3												В	<del>√5</del> <b>S</b>	Chief: River Bend 2000 NRC Exam Licensee review changes: Focused stem of question on a FW pump trip and its impact on RR system as level lowers.
47	Н	3												Ν	<del>√2</del> <b>S</b>	<u>Chief</u> : None.

	1.	2.	(	3. Psych	nometr	ic Flaw	s	4.	Job Cont	tent Fl	aws	5. C	Other	6.	7.	8.
Q#	LOK (F/H)	LOD (1-5)	Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		SRO Only	B/M/N	U/E/S	Explanation
																Licensee review changes: Reworded the stem and focused answer and distractors on what can cause SBGT to stop drawing a suction on Primary Containment.
48	F	4												В	<del>V</del> 5 <b>S</b>	<u>Chief</u> : None. <u>Licensee review changes: Editorial changes to stem.</u>
49	н	2												М	<del>∨2</del> <b>S</b>	Chief: None.  Modified: Original question focuses on if the Unit 1 and 2 UPS have separate inverters and whether there would be a delay when swapping to the alternate power supply. Modified question looks at what the alternate power supply for the Unit 2 UPS is and if the swap would be automatic or manual. As a result, answers and distractors are changed.  LaSalle 2014 NRC Exam
50	F	2												N	¥5 <b>S</b>	<u>Chief</u> : None. Licensee review changes: Editorial changes to stem.
51	F	2												В	<del>√3</del> <b>S</b>	Chief: None.  Hope Creek 2005 NRC Exam Licensee review changes: Editorial change to stem.
52	н	3	x				x							Z	₩6	Chief: What in the stem provides information as to why B105 is LIT? If it is LIT than performing distractor actions A, B, D are required per the ARP. They may not be required per the LOA, but they will be required actions. Stem needs to clarify why this ARP is applicable and question needs to be adjusted to test for required actions and not include distractors that are required actions.  Removed annunciator which caused required actions confusion.  Licensee review changes: Focused question and answer/distractors on the purpose for securing control power to the air dryers following a fault.
53	Н	3												В	<del>√3</del> <b>S</b>	Chief: None.  Susquehanna 2011 NRC Exam Licensee review changes: Editorial change to stem.
54	F	2												М		Chief: None.  Modified: Original question was a 2x2 concerning what would happen if CST level lowered due to an earthquake. Modified question just focuses on CRD pump trip setpoint on CST level therefore changing multiple distractors.  Brunswick 2016 NRC Exam  Licensee review changes: Editorial changes to stem.
55	F	2					_		_					N	<del>V</del> 3 <b>S</b>	<u>Chief</u> : None.

	1.	2.	3	3. Psych	nometr	ic Flaw	s	4.	Job Cont	tent Fl	aws	5. C	Other	6.	7.	8.
Q#		LOD (1-5)	Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		SRO Only	B/M/N	U/E/S	Explanation
56	н	2				х						x		N	₩6	Chief: KA requires prioritizing annunciators, this question only provides 1 annunciator. Distractor A is a manual action to bypass the RWM. Most significantly normal rod patterns include many control rods at position 48 and some at 00 so you would have rod over travel alarms in all the time. This is not plausible.  ATWS with manual rod movements. One distractor associated with CRD system. Licensee review changes: Editorial changes to stem.
57	н	3												М	<del>∨3</del> \$	Chief: None.  Modified: Original question tests knowledge of the setpoint of differential flow in the RWCU system for RWCU isolation versus what components isolate on high differential flow. This changed answer and distractors.  Hatch 2013 NRC Exam  Licensee review changes: Editorial change to stem.
58	F	2										Х		N	<del>∨6</del> <b>S</b>	<u>Chief</u> : Adjusted question and answers to more align on impact to RWM for a loss of RPI. Removed loss of UPS as that would effect multiple control rod RPI.
59	Н	2												В	<del>√3</del> <b>S</b>	Chief: None. Licensee review changes: Changed Group 7 to Group 2 in Distractor A. Use term hand cranking for manual operation in stem.
60	F	2												N	<del>∀6</del> <b>S</b>	Chief: Shifted question focus to RHR SW pump power supply in suppression pool cooling mode to add LOD. Licensee review changes: Changed question to focus on power supply for the RHR pump as loads 480 VAC and below are not required to be memorized.
61	F	2												В	<del>∀3</del> <b>S</b>	Chief: None.  LaSalle 2014 NRC Exam
62	F	3												N	<del>∀6</del> <b>S</b>	Chief: Editorial changes. Licensee review changes: Changed Distractor D to avoid an error trap.
63	Н	3												N	<del>√3</del> <b>S</b>	<u>Chief</u> : None. Licensee review changes: Editorial change to stem.
64	F	2										X		N	<del>∨6</del> <b>S</b>	Chief: Question was focused on SBGT operation and not secondary containment isolation. Refocused to test knowledge of secondary containment isolation components.  Licensee review changes: Changed Distractor D to both units supply dampers closed.
65	н	3												В	<del>∨3</del> <b>S</b>	Chief: None.  Limerick 2005 NRC Exam Licensee review changes: Editorial change to stem.
66	F	2												В	<del>V6</del>	Chief: Editorial Changes

	1.	2.	;	3. Psych	nometr	ic Flaw	S	4.	Job Cont	tent Fl	aws	5. C	Other	6.	7.	8.
Q#	LOK (F/H)	LOD (1-5)	Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		SRO Only	B/M/N	U/E/S	Explanation
															S	Oyster Creek 2009 NRC Exam Licensee review changes: Changed drywell pressure conditions to initial rising pressure conditions before entry into EOPs would be required.
67	F	2				×								Z	€ <del>V</del> 3 <b>S</b>	Chief: Distractor 'A' is not plausible as an SRO on the refueling bridge is already required to be present to perform fuel moves in the core. Adding a second SRO does not appear plausible.  Changed Distractor 'A' to focus on checking SRMs for operation a direct task of the RO in the control room.  Licensee review changes: Editorial change to stem.
68	F	2												Z	<del>V6</del> <b>S</b>	Chief: None.  REFERENCE PROVIDED: Insert from LOS-DG-M3 embedded in the stem.  Licensee review changes: Added insert from procedure LOS-DG-M3 to show that the procedure has restoration steps for the locked component. Added "on the work order" to the stem.
69	F	2												N	<del>√3</del> <b>S</b>	<u>Chief</u> : None. Licensee review changes: Editorial change to stem.
70	F	2												Z	<del>∀6</del> <b>S</b>	Chief: None. Licensee review changes: Changed question format to better align as Tier 3 by removing any reference to a system also made answer choices easier to read by converting from paragraph format to bullets.
71	н	2												N	<del>V3</del> <b>S</b>	Chief: None. Licensee review changes: Changed condition to a spurious alarm whose condition has cleared. Bypass and Isolate are considered synonymous for ARM alarms, now compare isolate and reset.
72	Н	2												В	<del>∨6</del> <b>S</b>	Chief: PREVIOUS 2 EXAMS: LaSalle 2018 NRC EXAM
73	F	2												N	<del>∀3</del> <b>S</b>	Chief: None. Licensee review changes: Included specific LaSalle Plant Specific Technical Guide information in stem. Adjusted wording in Answer B to say may exit LGA. Editorial changes to the stem to better question readability.
74	F	2												В	<del>∨6</del> <b>S</b>	<u>Chief</u> : Changed KA due to being unable to write a Tier 3 question for the KA selected. <b>Clinton 2019 NRC EXAM</b>
75	F	2							Х					В	₩3 <b>S</b>	Chief: Is this knowledge that is expected to be memorized? Regarding the KA, I am not sure the caveat you point out is justifiable as we would be required to then test the portion of the KA which requires more cognitive assessment which is the part which was determined to not match Tier 3.  Changed KA and used bank question from 2018 to address concerns above.  PREVIOUS 2 EXAMS: LaSalle 2018 NRC EXAM

	1.	2.	3	3. Psycl	nometr	ic Flaw	s	4.	Job Cont	tent Fl	aws	5. C	Other	6.	7.	8.
Q#	LOK (F/H)	LOD (1-5)	Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		SRO Only	B/M/N	U/E/S	Explanation
76	Н	2												N	<del>√6</del> <b>S</b>	Chief: Adjusted distractors to include TS 3.8.6 Battery Parameters. REFERENCE PROVIDED: TS 3.8.4, 3.8.6, and 3.8.7 attached to exam with above the line and less than 1 hour TS action requirements not provided. Licensee review changes: Changed stem to add second battery charger inoperable to ensure entry into TS 3.8.4. Editorial changes to stem and answers.
77	Н	2												N	<del>V</del> 5 <b>S</b>	Chief: None. Licensee review changes: Adjusted stem to focus high turbine vibrations.
78	н	3				X								М		Chief: Modified distractors A and C to specifically focus on the pressure control leg of LGA-001. The crew will stay in LGA-001 Level Leg due to drywell pressure being greater than the entry condition of the LGA even as they exit the pressure control leg of the procedure and enter LGA-004 for depressurizing the RPV due to the override statement that an automatic or manual ADS actuation has occurred. This is an assumption and will need to be discussed with the licensee as to how they consider this override step for a stuck open ADS valve.  Modified: Time without establishing pressure control at the RSDP has been increased beyond 30 minutes in the stem. Question stem part 1 looks at EAL for loss of control beyond 30 minutes from RSDP instead of how pressure control is maintained. And part 2 considers additional containment and reactor parameters and addresses escalation in the emergency classification. As a result, distractors are significantly different.  REFERENCE PROVIDED: Hot Matrix/Cold Matrix – EP-AA-1005, Addendum 3, Emergency Action Levels for LaSalle Station.  PREVIOUS 2 EXAMS: LaSalle 2016 NRC EXAM  Licensee review changes: Changed question to focus solely on EAL declarations for given conditions.
79	Н	3												N	<del>√5</del> <b>S</b>	<u>Chief</u> : None.
80	Н	3												N	<del>∀7</del> <b>S</b>	Chief: Editorial changes. Licensee review changes: Changed answer B to include all actions of override on RPV Level leg of LGA-010.
81	Н	3												N	<del>√5</del> <b>S</b>	<u>Chief</u> : None. Licensee review changes: Added information on SFP Level and actions associated with LOA-NB-202. Changed distractors B and D to make it a 2x2 question.
82	Н	3												В	<del>√6</del> <b>S</b>	Chief: None.  Pilgrim 2007 NRC EXAM  Licensee review changes: Editorial changes to stem and answers.
83	Н	3												В	<del>√5</del> <b>S</b>	Chief: With vacuum stable at 20 in HG it is possible the licensee would not require a reactor scram. Will let licensee assess.  Licensee review changes: Editorial changes to stem. Changed distractor from LGA-001 to LGP 3-2.

	1. 2. LOK LOD		3	3. Psych	Psychometric Flaws				Job Cont	aws	5. C	Other	6.	7.	8.	
Q#	LOK (F/H)	(1-5)	Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only	B/M/N	U/E/S	Explanation
84	Н	3												В	<del>∀6</del> <b>S</b>	Chief: None. LaSalle 2014 NRC EXAM Licensee review changes: Editorial changes to stem.
85	Н	4												N	<del>V5</del> <b>S</b>	Chief: None.  Licensee review changes: Editorial changes to stem.  Question DELETED based on an operationally invalid plant lineup in the question stem making the question confusing for the applicants to answer.
86	н	2												N	¥ <del>7</del> \$	Chief: Incorporated technical reviewer's comments and added more verbiage to distractor analysis.  Technical Reviewer: 1) This question is a good K/A match for a Tier 2 generic.  2) The stem has been modified slightly to directly ask the TS Bases for meeting or not meeting the LCO requirements. Also, to prevent potential multiple correct answers, the stem IC was changed to "140 psig and STABLE."  3)Distractor 'C' was modified to be considered more plausible, stating that "one required ADS valve" is inoperable since only 6 of 7 are required.  4) Rearrange the distractors as now shown to address the length of the distractors. Justifications have been rearranged also.  REFERENCE PROVIDED: TS 3.5.1 attached to exam with above the line and less than 1 hour TS action requirements not provided.  Licensee review changes: Added reference provided.
87	Н	3												N	<del>V6</del> S	Chief: None. REFERENCE PROVIDED: LGA-003, "PRIMARY CONTAINMENT CONTROL" Drywell Temperature and Primary Containment Pressure Legs. Remove all procedures, notes, cautions, finger notes and numbers. Licensee review changes: Editorial changes to stem and answers.
88	н	2												Z	₩7 <b>S</b>	Chief: Incorporated changes of tech reviewer and made additional editorial changes to the stem.  Technical Reviewer: 1) This question is a good K/A match for a Tier 2 generic.  2) The stem has been modified slightly to remove a repetitive phrase from the distractors and place it in the stem. Also, the ICs have been changed to a bulleted format.  3) Rearrange the distractors as now shown to address the length of the distractors. Justifications have been rearranged also. Licensee review changes: Added bullet to stem that UAT is operating normally. Adjusted answer D that SAT would be inloaded and then removed from service. Adjusted distractor B that unit would be scrammed if hot spot for > 30 minutes which are the conditions for an MPT with a hot spot.
89	Н	3												В	<del>∨6</del> <b>S</b>	Chief: None. PREVIOUS 2 EXAMS: LaSalle 2018 NRC EXAM Licensee review changes: Editorial changes to stem.

	1.	1. 2. 3. Psychometric Flaws		4. Job Content Flaws					Other	6.	7.	8.				
Q#		LOD (1-5)	Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		SRO Only	B/M/N	U/E/S	Explanation
90	н	3												Z	S	Chief: Incorporated tech reviewer comments and made additional editorial changes. Confirmed common mode test requirements with the licensee.  Technical Reviewer: 1) This question is a good K/A match for a Tier 2 generic.  The stem has been modified slightly to specify the cause of the 0 DG inoperability. If the 0 DG is actually inoperable, then Distractors 'A' & 'B' are not plausible, and the only recourse to correct may be to go to a distinct 2 x 2 format the 2 different SRs and the 1A & 2A or the 1A & 2B DGs.  REFERENCE PROVIDED: TS 3.8.1 attached to exam with above the line and less than 1 hour TS action requirements not provided.  Licensee review changes: Added reference provided. Editorial change to stem.
91	Н	4												Ν	₩6	Chief: None. Licensee review changes: Changed initial power level to and made editorial changes to stem. Changed distractor B and answer D part 1 to comply with GE SIL 621 for this condition. Final Changes – Focused question on to expected plant response for a FW pump trip with one FCV locked up and the required TS conditions.
92	Н	3												N	<del>V7</del>	Chief: Changed KA to Primary Containment and Auxiliary System. Original question had multiple independent components moving with no valid explanation and DW spray is not a TS or TRM system at LaSalle so it can be considered Inoperable. Licensee review changes: Editorial changes to stem.
93	Н	2												Ν	<del>∨6</del> <b>S</b>	Chief: None. Licensee review changes: Editorial changes to stem.
94	F	2												В	<del>V7</del> <b>S</b>	<u>Chief</u> : Editorial changes to stem and changed distractor C. <b>LaSalle 2012 NRC EXAM</b>
95	F	2												N	<del>∀6</del> <b>S</b>	<u>Chief</u> : None.
96	F	2												N		Chief: Editorial changes to reduce the non-essential verbiage in the stem. Consolidated the potential actions to include 1 hourly walk down of Available Fire Risk Components.
97	F	3												В		<u>Chief</u> : None. <b>LaSalle 2014 NRC EXAM</b>
98	F	3												В	S	Chief: Error on 401-3 resulted in changing the wording for the KA. Therefore found bank question which matched the correct KA.  Licensee review changes: Changed question to focus on deviations for requirements to monitor a LHRA/HRA.
99	F	2												N	<del>∨6</del> <b>S</b>	<u>Chief</u> : None. Licensee review changes: Editorial changes to stem and answers.

# Facility: LASALLE COUNTY STATION

Exam Date: NOVEMBER 13, 2020

	1.	2.	3. Psychometric Flaws						4. Job Content Flaws				5. Other		7.	8.
		(1-0)	Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only	B/M/N	U/E/S	Explanation
100	Н	2												В	<del>∨7</del> <b>S</b>	<u>Chief</u> : None.

ES-401	Written Examination Review Worksheet	Form ES-401-9

### **Facility: LASALLE COUNTY STATION**

	B= 23	F= 35	E= N/A	
RO TOTALS:	M= 6	H= 40	U= N/A	Additional Notes: NRC Written Exam
	N= 46	N=(HCL) 24		
	B= 8	F= 6	E= N/A	
SRO TOTALS:	M= 1	H= 19	U= N/A	Additional Notes: NRC Written Exam
	N= 16	N= (HCL) 13		

### **GENERAL COMMENTS:**

- 1. There are <u>3</u> (RO) / <u>5</u> (SRO) questions with references/attachments provided.
- 2. Questions from the previous 2 NRC Exams: 3 (RO) / 2 (SRO)
- 3. Average difficulty is <u>2.45</u> on the RO exam and <u>2.68</u> on the SRO exam.
  - Technical Reviews for odd numbered questions performed by Chief Examiner qualified staff in IOLB.