questions reviewed in depth.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.	8.
			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	H	2.0										✓		N	~~U~~ S	K/A asks for reasons for reduced loop operating requirements, not indications of reverse flow. The question is a statement of how thermal stratification can be caused if operating loop flow is increased to much. After discussion with reviewer, no changes were made.
2	H	2.5												E	S	Remove [QUESTION] from the stem. Deleted template place keeper. FACILITY COMMENT: EDG-11 operates in parallel with offsite power. Change each reference to "EDG Bus 11EA" (including other questions) to "offsite power". corrected
3	H	2.0												N	S	FACILITY COMMENT: Underline "no other alarms were received". Done FACILITY COMMENT: This question needs a reference or LOD >5. Disagree, question can be answered based on application of system knowledge of safety related DC power distribution.
4	H	2.0												M	S	FACILITY COMMENT: Change "RPS actuation" in distractors to "Control Rod insertion". Left as is. FACILITY COMMENT: 3D157 indicates RPS actuation was complete. Revised distractor “c” to fully actuated FACILITY COMMENT: Symbols < and > should be spelled out. Left as is
5	F	2.0												N	S	
6	F	2.5												M	S	FACILITY COMMENT: Poorly worded distractors. LOD=4. Reformatted distractors ‘c’ and ‘d’ as bulleted lists rather than a single sentence.
7	H	2.5												N	S	
8	H	2.5												M	E	Remove [response] from distractor d.3 Deleted template place keeper.

Instructions

[Refer to Section D of ES-401 and Appendix B for additional information regarding each of the following concepts.]

1. Enter the level of knowledge (LOK) of each question as either (F)undamental or (H)igher cognitive level.
2. Enter the level of difficulty (LOD) of each question using a 1 – 5 (easy – difficult) rating scale (questions in the 2 – 4 range are acceptable).
3. Check the appropriate box if a psychometric flaw is identified:
   - The stem lacks sufficient focus to elicit the correct answer (e.g., unclear intent, more information is needed, or too much needless information).
   - The stem or distractors contain cues (i.e., clues, specific determiners, phrasing, length, etc).
   - The answer choices are a collection of unrelated true/false statements.
   - The distractors are not credible; single implausible distractors should be repaired, more than one is unacceptable.
   - One or more distractors is (are) partially correct (e.g., if the applicant can make unstated assumptions that are not contradicted by stem).
4. Check the appropriate box if a job content error is identified:
   - The question is not linked to the job requirements (i.e., the question has a valid K/A but, as written, is not operational in content).
   - The question requires the recall of knowledge that is too specific for the closed reference test mode (i.e., it is not required to be known from memory).
   - The question contains data with an unrealistic level of accuracy or inconsistent units (e.g., panel meter in percent with question in gallons).
   - The question requires reverse logic or application compared to the job requirements.
5. Check questions that are sampled for conformance with the approved K/A and those that are *designated SRO-only* (K/A and license level mismatches are unacceptable).
6. Enter question source: (B)ank, (M)odified, or (N)ew. Check 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" ratings (e.g., how the Appendix B psychometric attributes are not being met).

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. 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	2.5												N	~~U~~ S	Doesn't match K/A. K/A ask for: Reactor water heatup/cooldown rate. Question asks for greatest heat removal capacity. Heatup/cooldown rate will be dependent on capability of heat removal system. No changes.
10	F	3.0												B	S	FACILITY COMMENT: Change "is being" in the second sentence to "was just". Left as is. FACILITY COMMENT: Operators would not leave the bundle hanging, but would put it in a safe condition. The wording in MOP13 specifically states "…fuel handling shall be terminated until a complete evaluation of the cause of the criticality is determined." There is no direction to put it in a safe condition. There may be other concerns such as exposure that may override immediate removal of the bundle. No changes made.
11	F	2.5												N	S	
12	H	2.0												N	E	Distractor is non-plausible. Possibly HPCI injects, then trips on L8. Added clarifying information to stem to eliminate assumption.
13	F	2.0												M	S	
14	H	2.0												N	S	FACILITY COMMENT: b. and d. are possibly correct. The ESP does not differentiate. Question refers to "maximizing" cooling. RBCCW has a greater cooling capacity, especially if ECCS loads are in operation. Operation using EECW (distractor 'd') would not maximize cooling. No changes made.
15	H	2.0			✓									N	~~U~~ S	Series of T/F statements. Not higher skill. Must be memorized. Distractor statements meaningless without stem. FACILITY COMMENT: Include the recorder name (PC Air and Water Temperatures), not just the number. Name added.
16	H	2.0												B	S	
17	H	2.0												N	~~?~~ S	Not higher skill, must be memorized. Disagree, must have an understanding of how parameters affect the mitigating strategies. FACILITY COMMENT: b. could also be correct (TWL due to SRV TPLL). Does not have a direct influence on ATWS mitigating strategy, therefore is incorrect. SRV TPLL is a limitation to maintain containment integrity and not on ATWS mitigation (i.e., required action is performed to mitigate damage to tail pipes, not to minimize reactor power). Torus water level may have an indirect effect in that Torus water level may affect which temperature indicators are is used in determining BIIT. No changes made.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only			
18	H	2.0												B	S	
19	H	2.0												N	S	
20	H	2.0												N	S	
21	F	2.0												M	S	a. may also be correct based on instrument tolerances. Reduced rate of change and reworded stem to imply design setpoints. FACILITY COMMENT: This is not an operationally valid question. Impossible to predict the correct response at 25%. Make power level 30%, and b. is correct. With power level at 20%, a could be correct. BPV closure will never cause the scram with these conditions. Question reworded and correct answer changed to MSIV.
22	~~H~~ F	2.0												B	S	Not higher skill, must be memorized. Check correct answer – may not be the correct answer. MSIV closure trip will occur before high power. This may be an accident analysis question with certain features disabled. Changed to MEMORY cognitive level and reworded stem.
23	H	2.0												B	S	
24	F	2.0												N	S	FACILITY COMMENT: Fermi stopped using LIE, MRE, LRA, etc. some time ago. Use PIS number followed by instrument number (C32-R606). Please remove in other questions in which they appear. Changed as requested.
25	H	2.0												B	S	
26	H	2.0												B	S	
27	~~H~~ F	2.0												B	S	Not higher skill, must be memorized. Cognitive level changed to MEMORY
28	F	2.0												N	S	
29	F	2.0												M	E	Check distractor c. It is acceptable if the Level 4 isolation is caused by a high RPV water level. Distractor replaced
30	H	2.0												N	S	FACILITY COMMENT: High difficulty. Which division is reading 115"; the one with the calibration error, or the other? Either c. or d. is correct depending on your assumption. Question revised to clearly identify which division is reading higher.
31	H	2.5												N	S	

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.	8.
			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
32	H	2.0												N	S	Is this required info from memory? FACILITY COMMENT: "Obscure" ARP. Need a reference? Question revised to eliminate specific actions required by ARP to an assessment of what may have caused the alarm based on system knowledge.
33	H	2.0												N	?	Missing component column identifies. Unable to evaluate. FACILITY COMMENT: Heading for distractors is missing. "RPS A", "RPS B", "Scram Air Header"? Restored missing identifiers.
34	F	2.0												N	S	FACILITY COMMENT: Fermi's nomenclature (23.308.01) says "Intermediate Power Range Monitoring recorders", not "indication". Change "indication(s)" to "recorder(s)". Recorders are the only indication at P603 so whether the indicator is a recorders or not is immaterial. No changes made
35	F	2.0										✓		N	~~?~~ S	K/A call for prioritization of alarms. Question does not prioritize alarms. K/A is the "ability to prioritize and interpret significance. If you don't know what will cause alarms you don't have the ability to prioritize or interpret significance. FACILITY COMMENT: Add to beginning of stem "During a reactor startup in Mode 2". This removes confusion if the assumption is that the reactor is at power with the Mode Switch is in Run, which will prevent some of the alarms in the distractors. Changed as requested.
36	F	2.0												N	S	
37	H	2.0												M	S	
38	H	2.0												B	S	FACILITY COMMENT: Need commas and/or slashes between ARPs. Separated with a line break.
39	F	1.0 3.0												B	U S	Low difficulty level. FACILITY COMMENT: SRO-14 provides the answer to this question. Question (and K/A) replaced. New question reviewed and found acceptable.
40	F	~~1.0~~ 2.0												B	~~U~~ S	Low difficulty level. Applicant must know that not all valves in RCIC are DC powered. No changes made.
41	F	2.0												B	S	FACILITY COMMENT: In distractor b., change RSW to RHRSW. Changed as requested.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.	8.
			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
42	H	2.0												M	U S	Distractor a. could be a correct answer if there is no low pressure system operating. ADS is prevented. (two correct answers.) RPV water level is below L1, therefore a low pressure pump will be operating. FACILITY COMMENT: Times don't add up. ADS is still timing down at 10 minutes (there is still >100 sec. left), so no ADS SRV will be open. This makes a. correct, not b. For b. to be correct, we need faster rates or longer time required. Question revised to that the correct answer is based on the status of the system timers given the information in the stem of the question.
43	H	2.0												M	U S	Two correct answers. The applicant must make an assumption concerning the status of low pressure injection systems. Distractor d. could be assumed to be correct w/o low pressure injection sys. RPV water level is below L1, therefore a low pressure pump will be operating. FACILITY COMMENT: This is similar to #42. Suggest placing one near beginning of test, and one near the end. REPLACED QUESTION. New question reviewed and found to be satisfactory.
44	F	2.0												M	S	FACILITY COMMENT: Not operationally valid. Operators do not use this screen. Question will be reviewed at the facility to determine the validity.
45	H	1.0			✓									B	U	LOD = 1. All distractors contain at least one valve supplied by Div 1, thus there are multiple correct answers.
46	H	2.0												B	S	
47	H	2.0												N	S	
48	H	2.0												M	S	
49	H	2.5												B	S	FACILITY COMMENT: a. & b. distractors are identical. Fixed distractor 'b' by copying and pasting the correct distractor from the Exam Bank. FACILITY COMMENT: Also, c. is a bad distractor. When facility was called to explain the comment no explanation was given by the reviewer. Left as is.
50	H	2.5												B	S	FACILITY COMMENT: In a. distractor, change 64E to 65E. Changed as requested.
51	H	2.0												B	S	FACILITY COMMENT: "EDG Bus 14EA" should be "offsite power". Changed as requested.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only			
52	H	2.5												B	S	
53	H	2.0												B	S	
54	F	2.0												B	S	
55	H	2.0												M	S	
56	H	2.5												M	U	No K/A provided. Needs to be evaluated. K/A inserted.
57	H	2.5												N	S	FACILITY COMMENT: Bad question. Needs replacing. Replaced K/A and Question.
58	F	2.5												N	S	
59	F	2.5												B	S	
60	H	2.5												N	S	FACILITY COMMENT: b. & c. accepted because TWT can be indicated to bottom of torus. B is a concern because you must use the correct indicators
61	~~F~~ H	2.5												N	S	May be higher skill level. Cognitive level changed to HIGHER
62	F	2.0												N	S	
63	H	2.0												M	S	
64	H	2.0												N	U S	Two correct answers. The question doesn't specify any order, but what is expected. It is expected to rapidly reduce power if vacuum goes down. The expectation is that the operator will not put the plant through an unnecessary transient. Added a rate of change to indicate that there is time to take mitigating actions specified by the off-normal procedure.
65	H	2.0				✔								N	U S	With a fire alarm, cross connecting with the fire system is implausible (distractor a.), shutting down a fire pump (distractor c.) is also implausible. GSW is normally cross-tied to the FP system. Shutting down the fire pumps is an action specified by the ON procedure, but at a lower level. Question revised to delete reference to fire alarm and change distractor "a" to a different action. Also revised distractor "d" to eliminate as possible answer (there are numerous references to initiating EECW within 20.131.01).

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. B/M/N	7. U/E/S	8. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Back-ward	Q= K/A	SRO Only			
66	H	2.0												B	E	Distractor d. may also be correct. We teach it is always correct to put the reactor in a safe mode if you don't understand what is happening. Since this question involves reactivity control, scram would be safe. None of the parameters given are threatening to exceed a SCRAM setpoint, therefore distractor "d" is not correct. Changed question stem to determine which action is "required" to be taken.
67	F	2.0												N	E	Fix auto number of distractors (e. f. g. h.) Fixed. FACILITY COMMENT: Change distractor letters from "e, f, g, & h" to "a, b, c, & d". duplicate comment. FACILITY COMMENT: Fix a. or b. (minutiae). No explanation provided by facility. No changes made to either distractor.
68	F	2.0												B	S	
69	F	2.0												M	S	
70	F	2.0												B	S	FACILITY COMMENT: c. is correct answer per TS 3.10.4. Special Test Exception ODE-12. Question revised to acknowledge TS 3.10.4 and correct answer changed to 'c'..
71	F	2.0												B	S	
72	F	2.0												B	S	
73	F	2.0												B	S	
74	H	2.0												N	S	FACILITY COMMENT: Bad question. Logical, but no direct procedural guidance. Prerequisite is >20'. To get into 23.800.07, raise level to above the RPV Flange. 23.800.07 prerequisites require cavity to be flooded to greater than 20'6'' above the vessel flange. 22.000.04 specifies the required level as 635 to 645 inches as indicated on Flood-Up Level Instrument. All that the applicant needs to know to answer the question is that ECCS will not auto start since the low level setpoint has not been reached and that the RPV cavity must be flooded to establish FPCC asan alternate means of decay heat removal since all other methods require operation of an RR pump. The only change made was to indicate that the indicated level ranges are read on Flood-up Level Instrument.
75	F	2.0												B	S	

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.	8.
			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
76	H	2.0											✔	N	U S	Not SRO level. ROs would be required to know this information. Disagree. The question requires diagnoses of an event, as well as identifying an applicable non-immediate action from an off-normal response procedure to be directed. After further discussion with reviewer, question was determined to be acceptable. FACILITY COMMENT: Get rid of FIE and MRE. Not used at Fermi. Changed as requested.
77	H	2.0											✔	N	S	
78	H	2.0											✔	N	~~U~~ S	Not SRO level. No procedure is selected. Operators are required to know, in general, what to do under these circumstances. The specified actions are beyond initial actions that are normally taken since based on the information provided in the stem, the primary alternate locations for tripping the reactor and main turbine are assumed to also be inaccessible. The actions in the answer choices are from two different off-normal procedures which the applicant must know the differences. After further discussion with reviewer, question was determined to be acceptable. FACILITY COMMENT: No guidance to locally trip the Main Turbine. May need 20.000.18 and/or 20.000.19. The wording is general enough and the on-shift SRO's would have to determine a way to shut down the turbine. No changes made as a result of comment.
79	H	2.5											✔	N	S	
80	F	2.0											✔	N	S	FACILITY COMMENT: No correct answer. Use LSSS values. Use 23.601. Logic is (A or C) and (B or D). Answers are consistent with the references provide. Will resolve with facility during validation week.
81	H	2.0											✔	M	~~U~~ S	Not SRO level. System knowledge. No tech spec call required to answer this question. This is beyond required RO level of knowledge. The question requires knowledge of the Tech Spec bases for reactor trip settings. After further discussion with reviewer, question was determined to be acceptable. FACILITY COMMENT: Change "At-the-Controls" to "P603". Changed as requested

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.	8.
			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
82	F	2.0											✔	N	U	Not SRO level. System knowledge. Nothing to differentiate between RO and SRO level knowledge. Question is based on Tech Spec bases discussion for the reason for why the specified variables are included in the PAM instrumentation. FACILITY COMMENT: c. & d. sound very close. Bases not normally memorized. Question will be replaced as answer choices are based on trivial differences found in Tech Spec bases.
83	F	2.0											✔	N	~~U~~ S	Not SRO level. System knowledge. The question Is based on knowledge of Tech Spec bases for isolation settings. After further discussion with reviewer, question was determined to be acceptable.
84	H	2.5											✔	M	S	FACILITY COMMENT: Operability in the stem is confusing. Delete "the operability of" in the last sentence of the stem. Changed “operability of” to “impact on”
85	H	2.0											✔	N	S	FACILITY COMMENT: Need to list flow chart as a required reference. Disagree; a general understanding of flow chart structure(i.e., attempt to restore parameter using normal means precedes all other actions, lacking any additional information as to source of sump input)
86	H	2.0											✔	N	~~U~~ S	Not SRO Level. Question only asks for system knowledge and general procedural knowledge. Disagree. Question involves application EOPs. After further discussion with reviewer, question was determined to be acceptable. FACILITY COMMENT: Meet requirements >TAF to attack containment. True but if flow is diverted, RPV level will decrease. FACILITY COMMENT: One SRO assumed more RHR flow was available. Assumption is not supported by information provided in the stem of the question.
87	H	2.0											✔	M	S	FACILITY COMMENT: Why is a. better than d.? RPV pressure must be greater than 77psig to maintain SRV open.
88	H	2.5											✔	M	S	FACILITY COMMENT: Difficult from memory. Need TS 3.3.1.1. Associated LCO will be provided.
89	H	2.5											✔	N	S	

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.	8.
			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
90	H	2.0											✔	N	~~U~~ S	Not SRO Level. This is system knowledge. Disagree. The applicant must evaluate the information given, realize that the EDG is operating without cooling, and will not automatically trip due to the high Drywell Press override of the trips. The required response is not an immediate operator action, and is the responsibility of the SRO to determine what action will be taken based on plant conditions. After further discussion with reviewer, question was determined to be acceptable. Also, answer choice 'a' uses the word immediately, indicating the operator should have the information memorized. Reworded to say "as soon as possible" FACILITY COMMENT: Bad question. No reference. Question tests the operator's knowledge of EDG trips bypassed by a LOCA, understanding of how the EDG is impacted, and applicant's sensitivity to protecting the EDG.
91	H	2.0											✔	N	~~U~~ S	Not SRO Level. General EOP and system knowledge is all that is necessary to answer this question. Disagree. Question involves application EOPs. After further discussion with reviewer, question was determined to be acceptable. FACILITY COMMENT: c. is correct if able to spray with 27A. Made 'c' the correct answer. Revised distractor 'b' to so as to not have two correct answers. FACILITY COMMENT: Delete note. Note deleted.
92	H	2.0											✔	B	S	No K/A provided – not evaluated. distractor a. is implausible. possibly replace with no required action – readings are normal for this power level. ½ scram, ½ isolation shouldn't get anyone. After further discussion with reviewer, question was determined to be acceptable, but will check with facility to verify normal MSL radiation levels.
93	H	2.0											✔	N	U	Not SRO level. System knowledge will answer the question.
94	H	2.0											✔	N	S	FACILITY COMMENT: Change "primary NSO" to "P603". Change "secondary NSO" to "CRNSO". Changed as requested. FACILITY COMMENT: Change second bullet to read that APRMs are reading 5% (10% requires terminate & prevent for the BIIT). Changed Torus water temperature to 115°F which is below the BITT for the power level specified in the question.
95	F	2.0											✔	M	S	
96	F	2.0											✔	N	S	

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6.	7.	8.
			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
97	H	2.0											✔	M	E	Correct typos in the stem. FACILITY COMMENT: 24 hours from second INOP is 1400 on 9/21/10. Changing d. to be 1400 vs 1000 makes d. correct. Changed as requested,
98	F	2.0											✔	N	S	No K/A provided. Added to question pedigree. After further discussion with reviewer, question was determined to be acceptable
99	H	2.0											✔	N	S	FACILITY COMMENT: We are in the Scram procedure also. Change c. to include 20.000.21. Reworded the question for determination of which procedure(s) applicable for controlling the parameters stated in the question. EOPs take precedence over AOPs.
100	F	2.0											✔	N	S	FACILITY COMMENT: Revise distractor 'a' explanation to match distractor. Removed reference to HPN phone and explained why notifying the Resident Inspector alone is incorrect.