

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	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/ units	Backward	Q=K/A	SRO only			
1	F	5							x			N	N	B	U	D - Seems too detailed? System knowledge only - why SRO level? Agree - also does not match the K/A - I think this K/A is not applicable at CCNP. They do not have a first out annunciator. <i>Resampled K/A - Replaced question</i>
2	H	2										N	Y	M	U	Good question - BUT Does not match the K/A - this has nothing to do with the LBLOBA EPE. <i>Resampled K/A - replaced question</i>
3	H	3	X			C,D						N	Y	B	U	D - actions vs options. C & D are essentially the same concept and could be ruled out due to similarity. This might be a good question but it does not match the K/A - nothing to do with a steam line rupture - excessive heat transfer. C and D not plausible. <i>Resampled K/A - replaced question</i>
4	H	2	X									N	Y	M	U	Typo in stem - "statement". K/A refers to DC power swapper. Q refers to effect of loss of DC power on RCP controls. <i>Resampled K/A - question remained the same</i>
5	H	2					X					Y	Y	N	E	Which is correct C or D (as per answer explanation)? K/A refers to alarms consistent with plant condition. Q is about taking action based upon plant conditions. <b>Correct answer is a judgment call between C and D - revised distracter "C"</b>
6	F	2										Y	Y	M	S	D - Same as RO # 64. Not SRO only. Does not test the effects on the power plant. <i>removed from RO exam - retained on SRO exam Justified why the original question met the intent of the K/A</i>
7	F	2				A,B,D			X			U	Y	B	U	Replace "refueling operations" in one distracter to some other plausible activity. Otherwise there are two implausible distractors or the question appears to be too detail-oriented. Agree - also does not match the K/A - nothing about ARM system alarms in the question. Is this appropriate knowledge for memory? <i>Resampled K/A - replaced question</i>
8	H	1.5				A,B						Y	Y	M	E	SRO only because of needing to know entry conditions??? Yes - it is simple but it is important - I think they should try again with a more challenging question. D is a good distracter... <i>Revised distracter B - justified distracter A</i>
9	H	3				C						Y	Y	N	E	Distracters C and D are essentially the same actions - replace one of them. <i>Revised distracter D</i>
10	H	4										N - not in catalog	Y	M	S	See BH's comment wrt K/A outline wording. The K/A is not the same as the K/A in the catalog. <i>Corrected K/A to EPE 011EA2.09 - which is a valid K/A.</i>
11	H	2				C						N	Y	M	U	D - Need to check references that are provided. B and C are essentially the same distracter - revise C. Does not really test the K/A - nothing about removal of an incorrect channel from service. <i>Shifted K/A but did not justify reason - did not address comments on distracters</i>

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12	F	2				C, D	X					Y	Y	M	E	What would stop a GS from granting permission? Why are C and D plausible? Did not revise question - justified distracters - review NRC Exam 2002. D - Delete "in each case" A not plausible - only the correct answer has equipment that actually has to be "started" - change "started" in stem to "operated". Revise distracter D to improve plausibility (feedwater rupture would not challenge containment - change to steam rupture)
13	H	2	X			A, D						Y	Y	M	E	D - Typo in explanation "manua" Why is this alarm coming in? Is this really a nuisance alarm (is there no correct answer)? Revise the question to place on SRW pump out of service - this makes the premise plausible because the remaining pumps will not produce enough discharge pressure under full flow conditions
14	H	2										Y	Y	N	S	D - typo - 0.5% vs ".5%" Is the SRO the only one allowed to use this procedure??? The KA is looking for a malfunction of the HRPCs - what is the malfunction? Not a strict K/A match. Why are the distracters plausible (fixed numbers)? Not operationally valid. The question presumes that containment pressure will not change when containment spray pumps start up? If CSAS just occurred, then containment pressure is dropping fast. Why would someone pick a power level based on the CSAS actuation set point? This is not an operationally valid situation - although it is an interesting twist to make the question harder. Why would operators think that all the containment pressure is due to steam? What about non-condensables? Revised question to address concerns
15	H	2	X			A, C, D?						N	Y	N	U	Need a clear objective answer -possibly no correct answer to choose from. No correct answer - can test the rad monitor as long as you test 1 channel at a time by tech specs / Justified why C is the correct answer - review do A and B have TS or TRM action statements associated with removal from service? Reviewed references NO-1-117 attach 2. This confirmed that A and B are also correct. D is not plausible. replace question.
16	H	2				D						Y	Y	B	U	D - check provided references. Would RO be asked to perform this task. (Similar to RO # 67 in concept.) Need to validate using references - but I am OK with the premise of this question. Does the answer require counting the unit 1 CST inventory for unit 2? If not - why include puncture of unit 1 CST? Is this question just seeing if the applicant will make a wrong unit error? Justified distracters
17	H	2										Y	Y	M	S	

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18	H	2	X			A,B						Y	Y	B	S	D - This tests knowledge of an APE - the K/A tests core alterations. Not a strict match. Agree with your concerns. I will need to see the reference but this question is used often on exams and it seems to always have 2 (or more) correct answers when the reference is checked. <i>Justified the question has only one correct answer</i>
19	F	2	X									Y	Y	N	S	Need to specify plant mode?? Same K/A was used earlier. What defines whether this as elective maintenance or corrective maintenance? If considered corrective maintenance, then B could be the answer. <i>Licensee justified the correct answer - need to review reference</i>
20	H	3				B, C and D						N	N	N	U	D - Third GET type question for SROs. Unit 1 vs Unit one. Add "and why" to end of question. Explanation needed. Does not match the K/A - not SRO level. Distracters not clearly plausible? <i>Replaced question</i>
21	H	2				D						N	N	B	U	D - Which is correct A or D? Reorder / fix answer explanations. Does not match the K/A - replace. D not plausible - block SIAS??? <i>Replaced question</i>
22	H	2										Y	Y	M	S	D - Add noun names to EOPs. Is this condition physically possible? f the S/Gs are as low as stated, why is the RCS not cooled down? I would say EOP-8 is the right call (must be multiple problems to maintain RCS temp at 520 with S/G levels down low. Justify distracters and correct answer. Not a strict match to the K/A - does not address safety functions, parameters or logic directly. <i>The licensee justified that the plant conditions were appropriate.</i>
23	F	2										Y	N	N	U	Not an SRO only Q. K/A importance ratings 2.1/3.0 differ from catalogue 3.9/4.3 Not SRO level of knowledge- more like NLO knowledge - This K/A is wide open of SRO job tasks recommend replace this question with a question that tests at the SRO level. <i>Replaced question with new question</i>
24	H	2				C						N	Y	B	U	NRC Exam 2002. D - Why is C plausible? Does not test the K/A - does not test part B <i>Shifted K/A without authorization - still does not meet part B of K/A</i>
25	H	02-Jan										N	Y	N	U	D - Change distractor D to read "No action is required since minimum staffing is met." Possibly have 2 correct answers - "A" is also correct as written. Does not test the K/A. <i>Reselected K/A - replaced question</i>
Total	25	2.3	6	0	0	13	2	0	2	0	0	10	4	25	25	Sum
F	6	24.0%										U	B	7	13	UNSAT
H	19	76.0%										M	Modified =	10	5	Enhancement required
		100.0%										N	New =	8	7	SATISFACTORY
													Total	25	25	Total Graded
														0	0	Number not graded
															52.0%	% UNSAT

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			Stem Focus														
1	H	2										Y	N	N	N	S	actions vs action <b>Correct typos</b>
2	H	2										Y	N	N	N	E	Q about heat removal acceptability whereas K&A is relationship between RCS & SG Typos in explanation. What event is going on? Steam line break or LOCA? <b>Should process monitors alarm for SBLOCA inside CNMT? Revised stem to clarify process rad monitors</b>
3	H	3	X	X								Y	N	N	M	E	Distractor A shorter than others. "correct per procedure" vs "acceptable." Distractors are not parallel - recommend changes - <b>revised distracters</b>
4	H	2										N	N	N	N	U	K/A mismatch. K/A refers to charging flow and PRZ level. The Q refers to CVCS response to event. <b>Replaced question</b>
5	H	2				b,d						N	N	N	B	U	NRC Exam 2002 - Does not match the K/A - Distractors B and D do not appear to be plausible. Provide rationale for plausibility. <b>Correct typos. Replaced question</b>
6	F	2				c,d						Y?	N	N	M	U	B and D are essentially the same distracter. C - Why would a LOOP impact DC control power - plausible? Reverse logic on the K/A? - <b>Replaced question</b>
7	H	2				a	b					N	N	N	B	U	NRC Exam 2002 - Distracter B appears to be correct. (B is NOT CORRECT 1/3 power is not the same as minimum power < 1/3 power) Recommended changes to A and B. (accepted) K/A Mismatch - does not test sprays - does not test PORVs - only tests heaters. (will make change to test spray response) D- Where does the "1/3" value come from in A & B and why does it make for reasonable distracters. <b>Revised the question to address concerns</b>
8	F	2				a,d				?		N	N	N	B	U	K/A mismatch. K/A refers to rad safety principles not breaker operation. The K/A is for EPE 029 ATWS - together with G2.3.12 - containment entry - NOBODY will ever enter containment with an ATWS in progress. - reselect K/A and Replace question <b>Replaced question</b>
9	F	2	X							X		Y	N	N	N	S	D- "the most affected S/G"???? Be more definitive. I think they should replace this question. They are asking the applicant to memorize the EOP-6 indication - when in truth all of the indicators are valid. <b>APPEAL BAIT! (This meets our expectations for them to know the right answer meets LO - (VERIFY!)) Provide learning objective</b>
10	H	3				C						Y	N	N	N	S	D-Why is C credible. <b>Added distracter analysis - OK</b>
11	H	3	X									Y	N	N	N	S	D-Too much window dressing - simplify stem. I am OK with this question
12	H	2	X									Y			N	E	D-typoes in stem (steam "driven" AFW). "Best" operator response - make it required response per procedure. Answer explanation typo - "A&B is incorrect." <b>Revisions will be made as directed</b>
13	H	3										Y	N	N	N	S	
14	H	2	X			C&D						Y	N		N	E	D - Replace "most likely cause." Fix alignment in distracter B. Typos in answer explanation (..) (The) <b>Why are C and D plausible? (See distracter analysis)</b>

OK

OK

OK

learning objective

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15	F	2	X						C			Y	N		N	E	D- lowers vs lower. Add question mark. For distractor A what is a complete loss of IA ? (Zero or some valve less than NOP.) <b>C may be testing minutia?</b>
16	F	3	?						X?			Y	N		N	U	D - Perhaps too much window dressing? The licensee identified this as a K/A mismatch. <b>This is NOT a K/A mismatch. But it may be testing an inappropriate knowledge - B5b space. Recommend trying to replace the question. - replaced question</b>
17	F	1					C&D					Y	N		B	U	NRC Exam 2002. D-Why are C&D plausible? LOD=1.0 <i>Will revise C and D to clarify rate of change of pressure - when pilot tested, one person chose B.</i>
18	F	2	X									N	N		N	U	D-Spell out DFWCS. Delete parenthetical phrase. For values in distractors, isn't it more realistic to have < or > values instead of a specific value? <b>The stem is not clear - BOTH conditions in each distracter need to satisfy entry conditions. Revise stem to clarify. Consider using only one entry condition instead of 2. Does not match K/A - identified by licensee Proposed to change K/A from CE/E05 to CE/E06</b>
19	H	2	X				a,d					N	N	N	M	U	Typo with "11 Boric pumps." K/A 2.1.17 addresses verbal communications vs safety function assessment. OK question but doesn't match the K/A - K/A make no sense for written exam - reselect K/As? Did not find any applicable K/A under APE 001! <i>Licensee proposed to change K/A to 2.4.14</i>
20	H	2	X									Y	N		N	S	D - Spellout DFWCS. Delete "(1)" from first bullet. Use lower case for momentarily in D. Third paragraph in answer explanation does not read well - <b>does not match the description in C. Revise description to match distracter</b>
21	H	3	X				C&D	?				N	N		N	U	D - Add question mark. Spell out DAS and BASS. OK IS B a subset of A??? <b>NO K/A mismatch - Q does not address a stuck rod. SELECT CORRECT K/A C and D not plausible - when do we monitor AFI with incore detectors during operations? PROVIDE DISTRACTER ANALYSIS - replace question</b>
22	H	3	X					?				N	N		N	U	D - Spellout SU & SUR. Would SPDS provide a high SUR indication as the relay changes state???? <b>This does not match the K/A which asks for how NI performance changes with a change in voltage - not a loss of relay voltage REPLACE QUESTION</b>
23	H	2	X				?	?				N	N	N	M	U	Typo is stem "when a semi-trailer." Need distractor analysis to rule out other distractors. Does not match K/A - K/A refers to verifying a controlled procedure. <b>CHANGE K/A TO APE 069G2.4.4?</b>
24	H	3								X		Y	N		N	U	D - Need a distracter analysis to determine if the distracters are plausible - they are calculated numbers. I liked this question - <b>PROVIDE DISTRACTER ANALYSIS - Revised distracters A, B and D to make plausible</b>

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25	F	2										N	N		N	U	D - Don't RCPs trip on LOOP? K/A mismatch - Q does not address fire damage???? <b>Agree Replace No correct answer</b> <b>ANS - The procedure requires tripping the RCPs regardless if they have a LOOP or not. Delete the LOOP in the stem. Revise the stem to include damage to equipment - provide a K/A match analysis.</b>
26	H	3										Y	N	N	M	S	
																	Modified from NRC Exam 2002.
27	H	3					D					N	N		N	U	D - Securing a running DG that has no cooling seems to be a prudent operator action????? - YES Typos in answer explanation 2nd paragraph "ws" and "asre" K/A mismatch - Q does not address manipulation pertaining directly to RCS leakage????? - <b>Select new K/A or replace question</b>
28	F	2					B					Y	N		N	U	D - Distractor B is at the 60 F limit making it a possible correct choice. 2 correct answers - B is correct. <b>Revise B to make incorrect - 155 F</b>
29	F	2			X							Y	N		N	E	Collection of true / false statements <b>Revise question to move premise into stem - distracters are related so the basic question is OK</b>
30	H	3	X									Y	N		N	E	D - Change to "Based on the latest data, which is true?"
31	F	3										Y	N	N	N	S	<b>Revise stem to clarify time sequence</b>
32	H	2										N?	?		M	E	D - SRO level Q??? <b>Provide LO to support</b> No explanation provided. K/A is marginal????? <b>Select more appropriate K/A. Justify K/A switch</b>
33	H	2				a, c	b, c					N	?	N	M	U	B & C seem to be reasonable responses to cavitation. <b>They are reasonable actions but they are not IAW the procedures</b> SRO level - assess situation and direct a course of action??? <b>RO are expected to know this - provide learning objective</b> Need to see reference that correlates pump performance with cavitation. <b>Provide pump curve</b> 2. How does this test the K/A - starting current / locked rotor current? <b>Licensee proposes to shift the K/A</b> How is A plausible? Overheating the HPSI Pump could degrade pump performance - misconception - <b>Replaced question</b>
34	F	1	X									N	N	N	B	U	Low discriminatory value. Typo in 3rd item. K/A - No challenge to design limits. <b>Agree - Replaced question</b>
35	F	2	X									Y	N		M	S	D - Not sure what "stabilizes" means??? No explanation provided. <b>Reword distracters to clarify</b>
36	H	2	X									Y	N	N	N	S	"changes" vs "adjust." Explanation does not say why rad monitor isolates. <b>Correct typos</b>
37	F	2	X			c						Y	N	N	N	S	D - Delete first bullet and "(if any)" - <b>change distractor C to porportional heaters - unlikely that ALL PZR heaters could be deenergized from the loss of a single bus. After reconsidering the issue, I agreed to allow C to remain as is.</b>

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38	H	3	X									Y	N	N	N	S	D - Spell out acronyms. Spell out 4. Change question to "What impact will this have on DFWCS? Provide explanation for plausibility of distractors. <i>Will provide Correct typos. Is DFWCS considered part of ESFAS? No but the signal to trip DFWCS comes from ESFAS</i>
39	H	3	X									Y	N	N	B	U	D - spell out 3. What is DSS? Need explanations for plausibility of distractors. <i>No correct answer - revise question</i>
40	F	2										Y	N	N	N	E	Correct typos. Distracter A - change to "shifted to"
41	H	3	X									Y	N	N	M	S	D - Use CS pump and CAC numerical designations. Do applicants know that a DBLOCA includes a LOOP? <i>Do we need to tell them that a LOOP has occurred? Correct typos</i>
42	F	2				B						N	N	N	B	S	D - Why is B plausible? Provide distracter explanation. <i>Does not match the K/A - K/A is for power supply to MOVs - not loss of IA CS valves are AOVs - OK to use this question - draft K/A match analysis to justify</i>
43	F	2				B&D						Y	N	N	B	U	D - Why are B & D plausible? <i>Agree - from 2002 NRC exam Will provide distracter analysis - Reviewed distracter analysis - not credible - revise or replace</i>
44	H	3					B					Y	N	N	N	S	Why is distracter B incorrect? Not sure I understand this question. <i>Positive MTC after core reload. Never move rods to adjust temperature.</i>
45	H	2				B						N?	N	N	M	E	D - Why is A plausible? Explanations needed. <i>Does not match K/A - does not test tripping the MFP turbine Will prepare KA match analysis - if you don't reduce speed, the pump will trip. Meets part B but not part A of K/A for C and D - revise to correct</i>
46	F	2										N	N		M	S	D - A not plausible - <i>prepare distracter analysis - Explanations needed - Determined by CCNP to be a K/A mismatch - replace question Matches K/A - leave question as is</i>
47	H	2					A&D					Y	N		N	E	D - D appears to be a subset of A. <i>D is OK with the word ONLY Explanations needed.</i>
48	F	2				B,C,D						N			B	U	NRC exam 2002. D - B,C,D appear to be clearly SRO functions and are not plausible. <i>K/A is not appropriate - change the K/A - replace question - Justify / document K/A resample on the 401-4 form</i>
49	H	2	X			A or D						Y			M	E	D - alarms vs alarm of Alarm in distractors. Explanations needed. <i>Will provide distracter analysis - reviewed - A or D not plausible</i>
50	F	3										Y			N	S	D - Explanations don't match distractors. <i>Revise distracter analysis - Revised</i>
51	H	2				A,B,C						Y			M	S	D - Why are A,B,C plausible? Explanations needed. <i>Provide distracter analysis</i>
52	H	2				C,D						Y			B	S	D - Why are C & D plausible with no power available? <i>Provide distracter analysis - Provided</i>
53	H	2										N	N	N	M	U	No explanation provided for answer or distractors. - <i>Does not test K/A - knowledge of power supplies - can we change the stem to say that a bus is lost? Revised question</i>

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54	H	3	X			B, C, D						Y	N		N	U	D - Unit 1 vs Unit one. Remove question marks - use bullets. Explanations needed. B, C and D not dryer malfunctions - <b>Revise stem</b>
55	F	3	X									Y	N		N	S	D - system configurations vs combination of components. Explanations needed. <b>Provide distracter analysis</b>
56	F	3	X									Y			N	S	D - Use bullets not question marks. Delete "(1)". Delete "plant" and add question mark. <b>Revise as suggested Question marks are still there!</b>
57	H	3	X									Y	N		N	S	D - Unit 2 vs Unit two. <b>Revise as suggested</b>
58	F	2										Y	N	N	B	S	No explanation provided for answer or distractors. <b>Agree - need distracter analysis</b>
59	H	2							X			Y	N		N	S	Do the applicants have to know this from memory?
60	F	3	X		X							Y	N		N	E	D - Too many "I". Collection of True / false. <b>Revise stem - fill in the blanks</b>
61	H	3	X?									Y	N		B	E	NRC Exam 2002. D - Is a time frame needed to assure correct response???? <b>Add time frame (~20 minutes) and revise distracter A</b>
62	H	3	X									Y	N		M	E	D - Spellout TBV and Rx. Explanations needed. <b>State where in cycle - MTC must be negative</b>
63	H	2							X?			Y	N		B	S	NRC Exam 2002. D - Importance to Safety??? What if the operator does nothing??? Distracter C is not plausible - <b>revise C - added distracter analysis to justify C</b>
64	F	3	X				A?					Y	N		M	E	D - Reword distractors stating that the valves will close. Distracter C - add "manually" purge the WGDH. Is A a subset of B???? <b>Revise A Similar to question #6 on SRO exam - use in one place only - Replaced</b>
65	F	3					c					Y	X	N	M	E	SRO type question - what happens/ what do you do? - I am OK with this question - it has an RO ITS of 2.7 - but I recommend minor changes to improve distracter C which is a subset of A - recommend "E"
66	F	2					B					Y	N	N	B	E	Need explanation to rule out B as possible answer. I am OK with B. K/A importance values 3.9/3.4 differ from catalogue 4.4/4.0 - ITS was 4.4 in updated sample plan - was changed during KA Catalog update project
67	H	2	X									Y	Y		N	E	D - KA match - tests tech specs not precautions and limitation - replace question - align provided plant conditions. <b>Are references provided? Explanations needed.</b>
68	H	2				c, d						Y	N	N	N	E	K/A importance values 3.4/4.1 differ from catalogue 4.0/4.7 Changed from old catalog to new revision - updated in latest outline. Recommend change to improve plausibility of C and D <b>is this RO level of knowledge - provide lesson plan objective to justify - 15 min ACT tec Spec</b>
69	H	3				c, d						Y	N	N	B	E	Typo in explanation b. Using identified leakage in C and D is somewhat simplistic - limit is 10 GPM and total leakage is only 3.8 GPM. Seems somewhat implausible. Recommend change to question to improve LOD <b>Did not changes as requested</b>



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70	H	3										Y	N		N	S	
71	H	2	X									Y	N		N	E	D - Use bullets. Delete "(1)". Answer appears to be incorrect - does not count dose obtained at Ginna
72	F	3	X									Y	N		N	S	D - Note: Second GET-type question.
73	H	3	X			A						Y	N		B	E	NRC Exam 2002. D - Remove "lkely" - be more definitive. Why is A plausible? Question just asks what equipment is located in what room - recommend replace - provided distracter analysis - review carefully
74	F	2	X	X					X			N	N		N	U	Capitalize "O"perating. C & D mention specific instruments whereas A & B are generic. C & D can be readily eliminated. Agree - not really testing "operator response" - rather design features - replace - <b>Replaced/revised the question</b>
75	H	3	X			A		?				Y	N		N	S	D - Be less graphic in stem (incapacitated vs killed, available vs left alive). Why is A plausible? Is this an appropriate RO level question.
Total	75	2.4	36	2	2	23	13	1	7	0	1	18	68		75	75	Sum
F	29	38.7%									U	B	Bank =	21%	16	24	UNSAT
H	46	61.3%									E	M	Modified =	23%	17	23	Enhancement required
		100.0%									S	N	New =	56%	42	28	SATISFACTORY
															75	75	Total graded
																32.0%	% UNSAT

## Calvert Cliffs Operating Exam Comments

### Generic Comments

N/A'ed non-applicable procedural steps that appeared in the JPMs.

Consistently identified cues.

"Verify," "Check," or "Ensure" steps are not critical

1 hour notification JPM was the same for RO/SRO – need to distinguish between RO/SRO

### RO Admin JPMs

2008-AOP7H – swapped with system JPM-2008-NIS: Calculate Tq using excore NIS

2008-RM – deleted from RO exam (not appropriate) and replaced with JPM-2008-TTB:

determine time to boil calculation

2008-RCP – clarified cues

2008-RAD – will provide applicants with specific tasks and then identify applicable RWP, PCs, dosimetry, contaminated areas, hot spots, and general area dose rates

### SRO Admin JPMs

2008-RM-SRO – applicants to complete reportability form and identify who is notified

2008-AP7H-SRO – used as system JPM; replaced with JPM-2008-NO-114-SRO: evaluate draining refueling pool with cont closure deviation

2008-MNT – Modified initiating cue to be less leading and added later cue for applicants to consider shutdown time

2008-RAD-SRO – clarified initial conditions and added details to JPM steps

2008-ERPIP – clarified critical steps and will provide details for completing notification form

### In-Plant System JPMs

2008-CDEM – As written, not an alternate path JPM. Keep this JPM but made JPM-2008-4160V made into alternate path JPM.

2008-SDC-1 – minor clarifications;

2008-PPCS – deleted unnecessary cues and clarified critical steps

2008-MFW - deleted unnecessary cues and clarified critical steps

2008-SDC-2 - deleted unnecessary cues and clarified critical steps, K/A changed

2008-480V – not discriminatory as written; licensee replaced JPM-2008-4160VAC

2008-NIS – Moved to admin JPM section; replaced with JPM-2008-AOP7H

2008-CCW – clarify last JPM step to include operator actions vs recommendations; initial cued modified to distinguish between RO/SRO applicant (given vs find appropriate procedure)

2008-IA1 – Include cue cards to be provided in plant instead of verbal cues (noise factor)

2008-4KV – Replaced with JPM-2008-4KV-OC-DG because permission denied to open breaker panels

2008-MSIV – minor comments on cues

## **Scenarios**

### **General Comments**

Several malfunctions resulted in no operator action although they provided TS calls for SRO and / or set up the crew for the major transient. Malfunctions were added for board operators. Requested that post-trip component malfunctions (i.e., valves or pumps failing to automatically realign) be added to ensure adequate testing of applicants. All scenarios needed significant enhancements to D-2 's for expected operator actions. More details (valves, pumps, switches, plant parameters, etc.) will be provided by the licensee. Some designated critical tasks were not critical and therefore not designated as critical tasks.

### **Scenario 1**

Renumber events. Licensee will add a component malfunction for the ATC operator.

### **Scenario 2**

Renumber events.

### **Scenario 3**

Renumber events. Licensee will add two component malfunctions for the ATC operator.

### **Scenario 4 (Backup)**

Renumber events. Licensee will add a component malfunction for the ATC operator. One critical task was not critical.