

Note: This is a header page to separate the draft and final resolved versions of the ES-401-9 (Draft Written Exam Comments Form) and the ES-301-7 (Draft Operating test Comments Form) for the Adams package. The first file for both the draft written and draft operating test forms contains only the draft comments with stats for the “as submitted” draft materials. This header page separates the draft comments from the “Final” comment files that contains final resolutions of those items for both of these forms.

	1. LOK	2. LOD	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6	7	Ans Letter	CFR	8
Q#	(F/H)	(1-5)	stem focus	cueing	T/F	cred dist	partial	job link	minutia	# / units	back-ward	K/A	SRO-only	B/M/N	U/E/S	A/B/C/D	55.41 55.43	Explanation
																		Callaway noted that they currently do not use the previous two NRC exams (that are withheld from the public for two years) as audit exams and they indicate that on the QA forms by building a completely new audit exam for the class each time.
1	F	2												N	S	C	7	
2	H	2												B	E	A	8	2014 NRC Q45 - Put LB LOCA in stem of question to ensure KA tie.
3	H	3												N	S	C	1	
4	H	2												N	E	C	10	Put 564F next to "Vessel Head" in explanation for C to ensure tie to given stem value as correct answer.
5	H	2												M	E	A	10	NEED PARENT Q
6	H	2												B	S	C	10	
7	H	2												M	E	D	10	NEED PARENT Q
8	H	2												B	S	C	10	
9	F	2												N	S	C	7	
10	F	2												B	S	A	10	
11	F	2												B	E	A	10	Distracter D has grammer error. Should be rewritten to state that "To prevent overfilling the faulted steam generator and cause its atmospheric dump valve to lift"
12	H	2												N	E	A	5	Remove "a" before RCS subcooling in part 2 of stem
13	H	3												M	S	B	7	NEED PARENT Q
14	H	3												B	S	B	7	2014 NRC Q14
15	F	3												N	S	D	7	
16	H	2												M	S	D	5	
17	F	2												B	S	B	7	2009 NRC

18	H	2				X								N	U	B	8	Per the explanation it appears that A is the correct answer not B. You moved the correct answer to A but did not update the explanation after the free review on this question.
19	H	3												B	S	C	5	
20	H	3												B	S	C	7	
21	H	3												B	S	B	8	2012 POINT BEACH NRC
22	F	2												N	E	C	11	55.41(b)11 is better suited to this question than your documented 55.41(b)7
23	H	3												N	S	C	10	
24	H	2												N	S	C	10	
25	H	4												N	S	B	10	
26	H	4												M	S	D	10	NEED PARENT Q 2017 AUDIT EXAM
27	F	3				X								N	E	D	10	I don't see the plausibility of distracter A because you are high in the band and uncovering heaters would be low in the band, unless you put in some info about the concern for the void to move into the pressurizer.
28	H	3				X								N	E	A	10	Distracter D is not credible as the stem is setup. You could use what you had in the first version of this question with "Rx power drops to less than 5% with a negative SUR."
29	H	2												N	S	B	5	
30	F	2												N	S	B	10	
31	H	2												M	S	A	5	NEED PARENT Q
32	H	2												B	S	B	14	ST NRC 2017
33	H	4												N	S	A	10	
34	H	2												B	S	A	7	2017 NRC Q52
35	F	3												N	S	D	7	
36	F	3												B	S	A	7	2016 NRC Q36
37	H	3												N	S	D	7	

38	F	2												N	S	C	7	
39	H	3												N	S	B	7	
40	F	2												B	S	B	7	
41	F	2												B	S	B	7	2016 NRC Q41
42	F	2												N	S	D	8	
43	F	3												B	S	A	14	
44	F	3												B	S	A	7	2016 AUDIT Q44
45	H	3												B	S	A	10	2009 NRC
46	F	2												N	S	A	10	
47	F	2												N	S	D	4	
48	H	3												B	S	B	5	
49	H	3												B	S	B	7	2014 NRC Q49
50	H	3												B	S	B	7	2014 NRC Q8
51	H	3												B	S	A	10	
52	H	3				X								N	E	C	7	Edit required - B2 and D2 are not credible, so these two distracters are partially not credible. Need to change this second part to something more credible such as basis for room temp, the valves that stroke to isolate SW and ESW, or etc.
53	H	3												N	S	B	4	
54	F	3		X		X								N	E	D	7	Edit - 2011 NRC There is no design limit challenge in the question or answer and there is cueing between the stem in two places and the answer. Distracter A and B are not credible because there is nothing else in the stem about them. Since this was previously approved it is an Edit but it needs major work to be used on this exam.
55	F	3												N	S	A	7	
56	H	3												M	S	D	10	NEED PARENT Q
57	H	2												B	S	D	10	typo of "gharging" in explan. section

58	H	3												N	S	C	7	
59	H	3												N	S	B	5	
60	F	3												B	S	B	5	2014 NRC Q58 Might want to put in explanation that 4% is the LEL to ensure tie to the KA is seen.
61	H	2												N	S	A	4	
62	H	2												N	S	A	7	
63	H	2												B	S	B	7	2017 AUDIT Q62
64	H	2												M	S	B	10	NEED PARENT Q
65	F	2												N	S	D	7	
66	F	2												B	S	A	10	
67	F	2												N	S	B	10	
68	F	3												M	S	A	10	NEED PARENT Q
69	F	2												B	S	D	10	2016 AUDIT Q68
70	F	2												B	S	D	10	2014 NRC Q70
71	F	3												B	S	C	11	2015 AUDIT Q71
72	H	2												B	S	B	12	2017 NRC Q72
73	H	2												N	S	B	10	
74	F	2												B	S	D	10	2016 AUDIT Q74
75	F	3												B	S	D	10	
76	H	3												N	S	D	5	
77	H	3												N	S	D	5	
78	H	3												M	S	D	5	2013 NRC Q78 parent
79	F	4												N	S	D	2	
80	H	3												N	S	D	5	
81	H	4												B	E	C	5	2016 NRC Q81 Missed on 2016 NRC review but question has EOP Add 30 in all four choices so should move this to the stem per NUREG, and then this eliminates the subset issue with Distracter D. Use Add 31 as a swap for the loss of Add 30 to the stem as we discussed.
82	H	3												N	S	A	5	

83	H	2												B	S	D	5	
84	H	3												N	S	C	5	HANDOUT NEEDED
85	H	3												N	S	B	5	
86	F	3												N	E	B	2	C distracter not credible. Modify stem by removing at least one from it and make distracter C "Cool down the RCS from 350F to 212F in 2.8 hrs." This is the FSAR design basis for two full trains of RHR not one and so it would not be correct nor even close for anyone who has performed or observed a cooldown for shutdown so it has operational validity as well. Also, fix grammar in Distracter D to "iodine release rates due to a postulated fuel handling....". Licensee made requested repairs but still has grammar error in stem (release is singular so use "is" not "are"....within limits).
87	H	3												N	S	A	2	
88	H	3												B	S	C	1	2013 NRC Q86
89	F	4												B	S	B	2	2014 NRC Q88
90	H	3												B	S	A	2	HANDOUT NEEDED
91	H	4												B	S	B	5	HANDOUT NEEDED 2014 SRO RETAKE NRC
92	F	3												N	E	A	7	Edit - partial non-credible distracters. By knowing the order you can eliminate the second half of the question choices or by knowing the reason you can eliminate the first part of the choices. Use balanced 2 X 2 as discussed on phone.
93	H	3												N	S	A	2	
94	F	3												B	S	B	1	2014 AUDIT Q20
95	F	4												B	S	C	7	

96	F	3												N	E	D	1	Spelling errors (surveillance vice surviellance).
97	F	4												B	S	C	2	
98	F	3												M	E	B	4	2014 AUDIT Q22 Spelling error in stem "restarted" not restated"
99	F	2												B	S	C	1	2017 NRC Q98
100	F	3												B	S	A	1	2014 SRO RETAKE NRC Q24

Results Table

%

RO LOK -H	44	58.67	Avg RO LOD	2.51
RO LOK-F	31		AVG SRO LOD	3.16
SRO LOK - H	14		Overall LOD	2.67
SRO LOK - F	11			
		%		
RO Bank	32	42.67	SRO Bank	11 44
RO Mod	9	12	SRO Mod	2 8
RO New	34	45.33	SRO New	12 48
		%		
Total Bank	43	43		
Total Mod	11	11		
Total New	46	46		
		%		
RO Sat	63	84	SRO Sat	20 80
RO Unsat	1	1.333	SRO Unsat	0 0
RO Edit	11	14.67	SRO Edit	5 20
		%		
Total Sat	83	83	Total Unsat	1 1
Total Edit	16	16		

Flaws

Stem focus	0
Cues	1
T/F	0
Cred Dist	5
Partial	0
job link	0
units	0
minutia	0
backward	0
KA	0
SRO-only	0
LOD = 1	0

10 CFR Distribution

41(b)1	1	43(b)1	5
41(b)2	0	43(b)2	7
41(b)3	0	43(b)3	0
41(b)4	3	43(b)4	1
41(b)5	8	43(b)5	10
41(b)6	0	43(b)6	0
41(b)7	25	43(b)7	2
41(b)8	4		
41(b)9	0		
41(b)10	29		
41(b)11	2		
41(b)12	1		
41(b)13	0		
41(b)14	2		

Answer Dist (in %)

RO-A	20	SRO-A	6
RO-B	23	SRO-B	6
RO-C	15	SRO-C	6
RO-D	17	SRO-D	7

Question Overlap with the Previous Two NRC Exams

QA form ES-401-6 item 4 requires 4 or less questions on RO exam from previous two NRC exams, SRO portion two or less questions from previous two NRC exams*

* if this is exceeded, the region shall call NRR to explain why/reasons.

RO overlap from previous two NRC exams

Q34	Q52 ON 2017 NRC EXAM
Q36	Q36 ON 2016 NRC EXAM
Q41	Q41 ON 2016 NRC EXAM
Q72	Q72 ON 2017 NRC EXAM

SRO overlap from the previous two NRC exams

Q81	Q81 ON 2016 NRC
Q99	Q98 ON 2017 NRC

Note: the previous two exams considered for overlap are the 2017-09 and 2016-05 NRC Exams

Questions Requiring References to Answer

6-10 questions rule of thumb on SRO portion of exam are allowed to be open reference, while the RO exam is generally none

RO Questions that require hand-outs

SRO Questions that require hand-outs

Q84	EIP-ZZ-00101, ADD 1 (EAL CLASS MATRIX)
Q90	TS LCO 3.4.15 AND TS LCO 3.6.6
Q91	CURVE BOOK, FIGURE 8-7, RCS LOOP WITH CONTROL RODS AND EXCORE LOCATIONS

Note: This is a header page to separate the draft and final resolved versions of the ES-401-9 (Draft Written Exam Comments Form) and the ES-301-7 (Draft Operating test Comments Form) for the Adams package. The first file for both the draft written and draft operating test forms contains only the draft comments with stats for the “as submitted” draft materials. This header page separates the draft comments from the “Final” comment files that contains final resolutions of those items for both of these forms.

	1. LOK	2. LOD	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6	7	Ans Letter	CFR	8
Q#	(F/H)	(1-5)	stem focus	cueing	T/F	cred dist	partial	job link	minutia	# / units	back-ward	K/A	SRO-only	B/M/N	U/E/S	A/B/C/D	55.41 55.43	Explanation
																		Callaway noted that they currently do not use the previous two NRC exams (that are withheld from the public for two years) as audit exams and they indicate that on the QA forms by building a completely new audit exam for the class each time.
1	F	2												N	S	C	7	
2	H	2												B	S	A	8	2014 NRC Q45 - Edit - Needs LB LOCA in stem of question to ensure clarity. Licensee made the requested change and question is now Sat
3	H	3												N	S	C	1	
4	H	2												N	S	C	10	Edit - Put 564F next to "Vessel Head" in explanation for C to ensure tie to given stem value as correct answer. Licensee made the requested change and question is now Sat
5	H	2												M	S	A	10	
6	H	2												N	S	C	10	
7	H	2												M	S	D	10	
8	H	2												B	S	C	10	
9	F	2												N	S	C	7	
10	F	2												B	S	A	10	
11	F	2												B	S	A	10	Edit - Distracter D has grammar error. Should be rewritten to state that " To prevent overfilling the faulted steam generator and cause its atmospheric dump valve to lift." Licensee made the requested change and question is now Sat

12	H	2												N	S	A	5	Edit - Remove "a" before RCS subcooling in part 2 of stem. Licensee made the requested change and question is now Sat
13	H	3												M	S	B	7	
14	H	3												B	S	B	7	2014 NRC Q14
15	F	3												N	S	D	7	
16	H	2												M	S	D	5	
17	F	2												B	S	B	7	2009 NRC
18	H	2												N	S	A	8	Unsat - Per the explanation it appears that A is the correct answer not B. You moved the correct answer to A but did not update the explanation after the free review on this question. Licensee made the requested repairs and question is now Sat
19	H	3												B	S	C	5	
20	H	3												B	S	C	7	
21	H	3												B	S	B	8	2012 POINT BEACH NRC
22	F	2												N	S	C	11	
23	H	3												N	S	C	10	
24	H	2												N	S	C	10	
25	H	4												N	S	B	10	
26	H	4												M	S	D	10	
27	F	3												N	S	B	10	Edit - I don't see the plausibility of distracter A because you are high in the band and uncovering heaters would be low in the band, unless you put in some info about the concern for the void to move into the pressurizer. Licensee created new distracter A, made B the correct answer and it is now Sat.

28	H	3												N	S	A	10	Distracter D is not credible as the stem is setup. You could use what you had in the first version of this question with "Rx power drops to less than 5% with a negative SUR." Licensee changed the question and it is now Sat.
29	H	2												N	S	B	5	
30	F	2												N	S	B	10	
31	H	2												M	S	A	5	
32	H	2												B	S	B	14	ST NRC 2017
33	H	4												N	S	A	10	
34	H	2												B	S	A	7	2017 NRC Q52
35	F	3												N	S	D	7	
36	F	3												B	S	A	7	2016 NRC Q36
37	H	3												N	S	D	7	
38	F	2												N	S	C	7	
39	H	3												N	S	B	7	
40	F	2												B	S	B	7	
41	F	2												B	S	B	7	2016 NRC Q41
42	F	2												N	S	D	8	
43	F	3												B	S	A	14	
44	F	3												B	S	A	7	2016 AUDIT Q44
45	H	3												B	S	A	10	2009 NRC
46	F	2												N	S	A	10	
47	F	2												N	S	D	4	
48	H	3												B	S	B	5	
49	H	3												B	S	B	7	2014 NRC Q49
50	H	3												B	S	B	7	2014 NRC Q8
51	H	3												B	S	A	10	

52	H	3												N	S	C	7	Edit required - B2 and D2 are not credible, so these two distracters are partially not credible. Need to change this second part to something more credible such as basis for room temp, the valves that stroke to isolate SW and ESW, or etc. Licensee made requested changes and the question is now Sat.
53	H	3												N	S	B	4	
54	F	3												N	S	A	7	Edit - 2011 NRC There is no design limit challenge in the question or answer and there is cueing between the stem in two places and the answer. Distracter A and B are not credible because there is nothing else in the stem about them. Since this was previously approved it is an Edit but it needs major work to be used on this exam. Licensee rewrote the question (now new) and it is now Sat.
55	F	3												N	S	A	7	
56	H	3												M	S	D	10	
57	H	2												B	S	D	10	typo of "gharging" in explanation section. Licensee corrected.
58	H	3												N	S	C	7	
59	H	3												N	S	B	5	
60	F	3												B	S	B	5	2014 NRC Q58 Might want to put in explanation that 4% is the LEL to ensure tie to the KA is seen.
61	H	2												N	S	A	4	
62	H	2												N	S	A	7	
63	H	2												B	S	B	7	2017 AUDIT Q62

64	H	2												M	S	B	10	
65	F	2												N	S	D	7	
66	F	2												B	S	A	10	
67	F	2												N	S	B	10	
68	F	3												M	S	A	10	
69	F	2												B	S	D	10	2016 AUDIT Q68
70	F	2												B	S	D	10	2014 NRC Q70
71	F	3												B	S	C	11	2015 AUDIT Q71
72	H	2												B	S	B	12	2017 NRC Q72
73	H	2												N	S	B	10	
74	F	2												B	S	D	10	2016 AUDIT Q74
75	F	3												B	S	D	10	
76	H	3												N	S	D	5	
77	H	3												N	S	D	5	
78	H	3												M	S	C	5	2013 NRC Q78 parent
79	F	4												N	S	D	2	
80	H	3												N	S	D	5	
81	H	4												B	S	B	5	2016 NRC Q81 Edit required-Missed on 2016 NRC review but question has EOP Add 30 in all four choices so should move this to the stem per NUREG, and then this eliminates the subset issue with Distracter D. Use Add 31 as a swap for the loss of Add 30 to the stem as we discussed. Licensee made requested repairs and question is now Sat.
82	H	3												N	S	A	5	
83	H	2												B	S	D	5	
84	H	3												N	S	C	5	HANDOUT REFERENCE
85	H	3												N	S	B	5	

86	F	3												N	S	B	2	C distracter not credible. Modify stem by removing at least one from it and make distracter C "Cool down the RCS from 350F to 212F in 2.8 hrs." This is the FSAR design basis for two full trains of RHR not one and so it would not be correct nor even close for anyone who has performed or observed a cooldown for shutdown so it has operational validity as well. Also, fix grammar in Distracter D to "iodine release rates due to a postulated fuel handling....". Licensee made requested repairs but still has grammar error in stem (release is singular so use "is" not "are"....within limits). Licensee made grammar repair and question is now Sat.
87	H	3												N	S	A	2	
88	H	3												B	S	C	1	2013 NRC Q86
89	F	4												B	S	B	2	2014 NRC Q88
90	H	3												B	S	A	2	HANDOUT REFERENCE
91	H	4												B	S	B	5	HANDOUT REFERENCE 2014 SRO RETAKE NRC
92	F	3												N	S	A	7	Edit - partial non-credible distracters. By knowing the order you can eliminate the second half of the question choices or by knowing the reason you can eliminate the first part of the choices. Use balanced 2 X 2 as discussed on phone. Licensee made requested repairs and question is now Sat.
93	H	3												N	S	A	2	
94	F	3												B	S	B	1	2014 AUDIT Q20

95	F	4												B	S	C	7	
96	F	3												N	S	D	1	Spelling errors (surveillance vice surviellance). Licensee made repair and it is now Sat.
97	F	4												B	S	C	2	
98	F	3												M	S	B	4	2014 AUDIT Q22 Edit required Spelling error in stem "restarted" not restated" Licensee made repair and it is now Sat.
99	F	2												B	S	C	1	2017 NRC Q98
100	F	3												B	S	A	1	2014 SRO RETAKE NRC Q24

Results Table

%

RO LOK -H	44	58.67	Avg RO LOD	2.51
RO LOK-F	31		AVG SRO LOD	3.16
SRO LOK - H	14		Overall LOD	2.67
SRO LOK - F	11			
		%		
RO Bank	31	41.33	SRO Bank	11 44
RO Mod	9	12	SRO Mod	2 8
RO New	35	46.67	SRO New	12 48
		%		
Total Bank	42	42		
Total Mod	11	11		
Total New	47	47		
		%		
RO Sat	75	100	SRO Sat	25 100
RO Unsat	0	0	SRO Unsat	0 0
RO Edit	0	0	SRO Edit	0 0
		%		
Total Sat	100	100	Total Unsat	0 0
Total Edit	0	0		

Flaws

Stem focus	0
Cues	0
T/F	0
Cred Dist	0
Partial	0
job link	0
units	0
minutia	0
backward	0
KA	0
SRO-only	0
LOD = 1	0

10 CFR Distribution

41(b)1	1	43(b)1	5
41(b)2	0	43(b)2	7
41(b)3	0	43(b)3	0
41(b)4	3	43(b)4	1
41(b)5	8	43(b)5	10
41(b)6	0	43(b)6	0
41(b)7	25	43(b)7	2
41(b)8	4		
41(b)9	0		
41(b)10	29		
41(b)11	2		
41(b)12	1		
41(b)13	0		
41(b)14	2		

Answer Dist (in %)

RO-A	22	SRO-A	6
RO-B	23	SRO-B	7
RO-C	15	SRO-C	6
RO-D	15	SRO-D	6

Question Overlap with the Previous Two NRC Exams

QA form ES-401-6 item 4 requires 4 or less questions on RO exam from previous two NRC exams, SRO portion two or less questions from previous two NRC exams*

* if this is exceeded, the region shall call NRR to explain why/reasons.

RO overlap from previous two NRC exams

Q34	Q52 ON 2017 NRC EXAM
Q36	Q36 ON 2016 NRC EXAM
Q41	Q41 ON 2016 NRC EXAM
Q72	Q72 ON 2017 NRC EXAM

SRO overlap from the previous two NRC exams

Q81	Q81 ON 2016 NRC
Q99	Q98 ON 2017 NRC

Note: the previous two exams considered for overlap are the 2017-09 and 2016-05 NRC Exams

Questions Requiring References to Answer

6-10 questions rule of thumb on SRO portion of exam are allowed to be open reference, while the RO exam is generally none

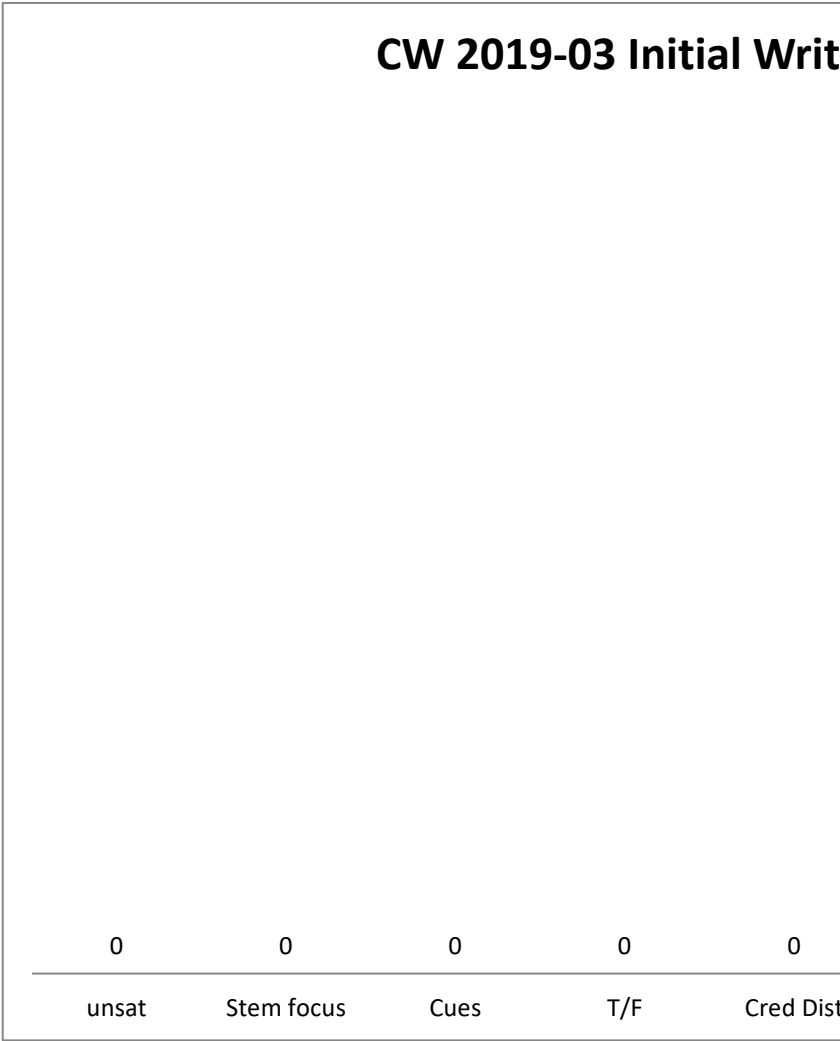
RO Questions that require hand-outs

SRO Questions that require hand-outs

Q84	EIP-ZZ-00101, ADD 1 (EAL CLASS MATRIX)
Q90	TS LCO 3.4.15 AND TS LCO 3.6.6
Q91	CURVE BOOK, FIGURE 8-7, RCS LOOP WITH CONTROL RODS AND EXCORE LOCATIONS

Stats and Graph

sat	100
edit	0
unsat	0
Stem focus	0
Cues	0
T/F	0
Cred Dist	0
Partial	0
job link	0
units	0
minutia	0
backward	0
KA	0
SRO-only	0
LOD = 1	0



ten Exam Statistics

	0	0	0	0
t	Partial	job link	units	minutia