

COVER SHEET

-- INTERNAL DOCUMENTS -- ALL IN ONE ADAMS DOCUMENT

**ST. LUCIE EXAM 2000-301
50-335 & 50-389
FEBRUARY 7 - 11, 2000**
















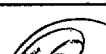
ES-201-1 - Exam Preparation Checklist
ES-501-1 - Post Exam Check Sheet
ES-401-7 - Written Exam Quality Checklist
ES-401-9 - Written Exam Review Worksheet
ES-301-3 - Operating Test Quality Checklist
ES-301-4 - Simulator Scenario Quality Checklist
ES-301-5 - Transient & Event Checklist
ES-301-6 - Competencies Checklist
ES-403-1 Written Exam Grading Quality Checklist
ES-201-3 - Exam Security Agreements

ITEM # 4
COVER SHEET

-- INTERNAL DOCUMENTS --
ALL IN ONE ADAMS DOCUMENT

ST. LUCIE EXAM 2000-301
50-335 & 50-389

FEBRUARY 7 - 11, 2000

Facility: <u>St. Lucie Nuclear Plant</u>		Date of Examination: <u>February 7 - 10, 2000</u>
Examinations Developed by: <u>Facility</u> / NRC (circle one)		
Target Date*	Task Description / Reference	Chief Examiner's Initials
-180	1. Examination administration date confirmed (C.1.a; C.2.a & b)	
-120	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	
-120	3. Facility contact briefed on security & other requirements (C.2.c)	
-120	4. Corporate notification letter sent (C.2.d)	
[-90]	[5. Reference material due (C.1.e; C.3.c)]	
-75	6. Integrated examination outline(s) due (C.1.e & f; C.3.d)	
-70	7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)	
-45	8. Proposed examinations, supporting documentation, and reference materials due (C.1.e, f, g & h; C.3.d)	
-30	9. Preliminary license applications due (C.1.i; C.2.g; ES-202)	
-14	10. Final license applications due and assignment sheet prepared (C.1.i; C.2.g; ES-202)	
-14	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	
-14	12. Examinations reviewed with facility licensee (C.1.j; C.2.f & h; C.3.g)	
-7	13. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	
-7	14. Final applications reviewed; assignment sheet updated; waiver letters sent (C.2.g, ES-204)	
-7	15. Proctoring/written exam administration guidelines reviewed with facility licensee and authorization granted to give written exams (if applicable) (C.3.k)	
-7	16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	
<p>* Target dates are keyed to the examination date identified in the corporate notification letter. They are for planning purposes and may be adjusted on a case-by-case basis in coordination with the facility licensee.</p> <p>[] Applies only to examinations prepared by the NRC.</p>		

Facility: <u>St. Lucie</u>		Date of Examination: <u>2/7-9/00 and 2/10/00</u>
Task Description	Date Complete	
1. Facility written exam comments or graded exams received and verified complete	2/22/00	
2. Facility written exam comments reviewed and incorporated and NRC grading completed, if necessary	2/29/00	
3. Operating tests graded by NRC examiners	3/3/00	
4. NRC Chief examiner review of written exam and operating test grading completed	3/13/00	
5. Responsible supervisor review completed	3/13/00	
6. Management (licensing official) review completed	3/13/00	
7. License and denial letters mailed	3/16/00	
8. Facility notified of results	3/16/00	
9. Examination report issued (refer to NRC MC 0610)	3/17/00	
10. Reference material returned after final resolution of any appeals	N/A	

Facility: <u>ST. LUCIE</u>		Date of Exam: <u>2-2-99</u>		Exam Level: <u>RO/SRO</u>			
Item Description				Initial			
				a	b*	c#	
1. Questions and answers technically accurate and applicable to facility				<u>✓</u>	<u>Py</u>	<u>Ⓟ</u>	
2. a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available				<u>✓</u>	<u>Py</u>	<u>Ⓟ</u>	
3. RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401				<u>✓</u>	<u>Py</u>	<u>Ⓟ</u>	
4. No more than 25 questions are duplicated from [practice exams, quizzes, and] the last two NRC licensing exams; enter the actual number of duplicated questions at right		NRC	Other	<u>✓</u>	<u>Py</u>	<u>Ⓟ</u>	
		<u>0</u>	<u>0</u>				
5. [No (Less than 5 percent) question duplication from the license screening/audit exam (if independently written)]				<u>✓</u>	<u>Py</u>	<u>Ⓟ</u>	
6. Bank use meets limits (no more than 50 percent from the bank, at least 10 percent new, and the rest modified); enter the actual question distribution at right		Bank	Modified	New	<u>✓</u>	<u>Py</u>	<u>Ⓟ</u>
		<u>12</u> <u>20</u>	<u>16</u> <u>8</u>	<u>70</u> <u>64</u>			
7. Between 50 and 60 percent of the questions on the exam (including 10 new questions) are written at the comprehension/analysis level; enter the actual question distribution at right		Memory		C/A	<u>✓</u>	<u>Py</u>	<u>Ⓟ</u>
		<u>44</u> <u>50</u>		<u>56</u> <u>50</u>			
8. References/handouts provided do not give away answers				<u>✓</u>	<u>Py</u>	<u>Ⓟ</u>	
9. Question distribution meets previously approved examination outline; deviations are justified				<u>✓</u>	<u>Py</u>	<u>Ⓟ</u>	
10. Question psychometric quality and format meet ES, Appendix B, guidelines				<u>✓</u>	<u>Py</u>	<u>Ⓟ</u>	
11. The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet				<u>✓</u>	<u>Py</u>	<u>Ⓟ</u>	
Printed Name / Signature				Date			
a. Author		<u>LAURENCE M RICH</u>		<u>12-13-99</u>			
b. Facility Reviewer(*)		<u>Robert W. Lindsey</u>		<u>12/16/99</u>			
c. NRC Chief Examiner(*)		<u>D. Charles Payne</u>		<u>1/20/00</u>			
d. NRC Regional Supervisor(*)		<u>George T. Hopper</u>		<u>2/3/00</u>			
Note: * The facility reviewer's signature is not applicable for NRC-developed examinations; two independent NRC reviews are required. # See special instructions (Section E.2.c) for Items 1, 4, 5, and 6. [] The items in brackets do not apply to NRC-prepared examinations.							

Facility: <u>ST. LUCIE</u>		Date of Exam: <u>2-7-99</u>		Exam Level: <u>RO/SRO</u>			
Item Description				Initial			
				a	b*	c#	
1. Questions and answers technically accurate and applicable to facility				<u>LC</u>	<u>Pyg</u>	<u>RB</u>	
2. a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available				<u>LC</u>	<u>Pyg</u>	<u>RB</u>	
3. RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401				<u>LC</u>	<u>Pyg</u>	<u>RB</u>	
4. No more than 25 questions are duplicated from [practice exams, quizzes, and] the last two NRC licensing exams; enter the actual number of duplicated questions at right		NRC	Other	<u>LC</u>	<u>Pyg</u>	<u>RB</u>	
		<u>0</u>	<u>0</u>				
5. [No (Less than 5 percent) question duplication from the license screening/audit exam (if independently written)]				<u>LC</u>	<u>Pyg</u>	<u>RB</u>	
6. Bank use meets limits (no more than 50 percent from the bank, at least 10 percent new, and the rest modified); enter the actual question distribution at right		Bank	Modified	New	<u>LC</u>	<u>Pyg</u>	<u>RB</u>
		<u>28</u> <u>270</u>	<u>6</u> <u>44</u>	<u>66</u> <u>62</u>			
7. Between 50 and 60 percent of the questions on the exam (including 10 new questions) are written at the comprehension/analysis level; enter the actual question distribution at right		Memory		C/A	<u>LC</u>	<u>Pyg</u>	<u>RB</u>
		<u>50</u> <u>48</u>		<u>50</u> <u>55</u>			
8. References/handouts provided do not give away answers				<u>LC</u>	<u>Pyg</u>	<u>RB</u>	
9. Question distribution meets previously approved examination outline; deviations are justified				<u>LC</u>	<u>Pyg</u>	<u>RB</u>	
10. Question psychometric quality and format meet ES, Appendix B, guidelines				<u>LC</u>	<u>Pyg</u>	<u>RB</u>	
11. The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet				<u>LC</u>	<u>Pyg</u>	<u>RB</u>	
Printed Name / Signature				Date			
a. Author		<u>LAWRENCE M RICH</u>		<u>12/13/99</u>			
b. Facility Reviewer(*)		<u>Robert W. Lindsey</u>		<u>12/16/99</u>			
c. NRC Chief Examiner(*)		<u>D. Charles Payne</u>		<u>1/20/00</u>			
d. NRC Regional Supervisor(*)		<u>George T. Hopper</u>		<u>2/3/00</u>			
Note: * The facility reviewer's signature is not applicable for NRC-developed examinations; two independent NRC reviews are required. # See special instructions (Section E.2.c) for Items 1, 4, 5, and 6. [] The items in brackets do not apply to NRC-prepared examinations.							

ST. LUCIE INITIAL RO/SRO WRITTEN EXAMINATION

FORM ES-401-9

Date of Administration: 2/10/2000

Examination Report #: 2000-301

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
1	F	2	✓									U	'B' & 'C' by themselves would prevent release <u>unless</u> mitigating action is taken (i.e., 2 independent samples). Also if RM is OOS for > 14 days, then cannot release. Stem is not specific to this regard. PSL action: Will rewrite/revise. Final status: OK.
2	F*	3				✓						U	'B' and 'D' are contrary to common sense. For 'D' with heaters off and sprays open, pressure should decrease - not increase. Swap with 'A'. For 'B' with heaters off and spray valves closed - why would pressure change (given no plant transient in stem). Licensee says LOK is 2, only a 1. PSL action: Will swap ends of "A" and "D". "B" is OK as is, have constant mini-spray flow even when valves are closed. Final status: OK.
3	H	4										E	'C' distractor explanation says it is wrong because 150 gpm is the <u>minimum</u> flow to meet DHR reqmts. Why isn't increasing flow wrong? Increasing flow doesn't violate DHR needs. PSL action: Will modify explanation. Final status: OK.
4	H	3										S	PSL action: none. Final status: OK.
5	H**	3**					✓	SRO only ??				U	'D' distractor is also correct. If the Unit re-enters Mode 5 (regardless of timing), containment integrity is not required. This is more an SRO only question not RO. NOTE(**): Easy to raise LOK by changing stem to RCS temperature rather than saying Mode 4. Will also raise LOD to 3. PSL action: Will reword/revise to eliminate confusion and raise LOK by changing stem. Also will change to SRO-only. <u>Interim Review:</u> 'C' still cues applicant re: mode change. PSL will change to "Mode 5". Also, change 'D' to "if, within 1 hour, RCS temperature is lowered to 190°F." Final status: Changed to SRO-only question. OK.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
6	H*	3										S	Are you sure that being idle is sufficient for distractor 'B' to be wrong? Also, is it normal for RCPs to be running in SDC? PSL action: Yes and Yes. Final status: OK.
7	H	4										S	What about rods? Procedure allows both - need to include assumption that rods not used. Also, include reactivity graphs other than just those needed to answer question. PSL action: Will include statement re: rod status. Reference package will have multiple pages of the reactivity graphs. Final status: OK.
8	H	3										S	Explanation for 'A' says Pzr setpoint of 36% is adequate. But, nothing in stem says actual setpoint is 36%. Only says actual level is 36% and slowly decreasing. Is setpoint 36% after reactor trip? Explain. Also, since modified - what are changes or where is copy of source question. (See ES-201, C.1.h, 3 rd bullet) PSL action: Will modify explanation. Final status: OK.
9	H	3	✓	✓		✓						U	Why are the annunciators listed in the order given? Is there any significance to the timing or sequencing when the alarm was actually received vice all being in at once. Need to fix tenses in all 4 answer options. 'B' not credible. PSL action: Will list annunciators in alphanumeric order. Will fix grammar. Will revise distractor "B". <u>Interim Review: Grammar for 'B' and 'D' still a problem. Provided suggestions.</u> Final status: OK.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
10	F	2				✓						E	This question's distractors do not flow well. For 'B' and 'D', how is pressure decrease controlled? Would 'D' be correct if the pressure range were 1800-2300 psia, trending to 2225-2275 psia? If so, I would like to swap the methods for 'A' and 'D'. Otherwise, we need to re-work this. PSL action: Will work on question trying to put heaters available in initial conditions. Will swap the methods for "A" and "D". <u>Interim Review:</u> Grammar problem with stem. Just noticed that the control range for 'C' & 'D' is outside the max. range. Need to select new range within the band. Final status: OK.
11	H	3	✓									S	What is basis for annunciator alarm order in stem? PSL action: Will list in alphanumeric order. Final status: OK.
12	H	3				✓						E	Explanation for 'B' appears backwards. Explain why distractor 'C' is plausible. How about change 'C' to Delta T Power only. Also explain the theory behind the correct answer. PSL action: Explained why "B" is OK as is. Will change "C" as requested above. Final status: OK.
13	F	1				✓						E	'D' seems implausible. Are the block valves before or after the MSRs? Is there another steam use for MSR? (i.e., MFPs) Answer is obvious. PSL action: Will try to revise "D" with another option. Final action: No other options easily available. OK.
14	H	3	✓									E	What is the normal circ water pump configuration for 32% power? A1, A2, B1, B2?? Is there any normal time, at power, when only two pumps are used? Need to state "Assume no operator corrective action". PSL action: All 4 pumps are normally operating when at power. No. Will add statement re: no operator action. Final status: OK.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
15	H*	3	✓				✓	✓				E	Concerned about distractor 'A'. How long before reactor trips (minutes vs seconds)? 'D' has to have happened or the reactor wouldn't have tripped (stem). Need to reword stem and answer 'D'. PSL action: Had same concern about "A" but thought the word "immediately" in stem corrected this. Will revisit this. Final status: Still concerned re: 'D' but OK. Check for performance on post-exam review and revise bank.
16	H	3										S	PSL action: None. Final status: OK.
17	F*	2										E	Delete "monitors (CIAS)" in 'D'. Also 'A' should read similar to 'B'. 'C' not plausible. Need new distractor. How about a trip signal that does not cause a SIAS? LOK only F, no analysis required. PSL action: Will change "A" to read like "B". Will look at "C" and see if can find a trip signal that doesn't cause a SIAS. Will change to LOK to F. Final status: OK.
18	H	3		✓								E	Need to change correct answer 'B'. It is teaching. Say something like "power was lost to the output relays". PSL action: Will change wording of "B" to eliminate teaching. <u>Interim Review:</u> PSL provided new question. OK except for 'C' - change 2B Hyd. Pmp to "Off". Final status: OK.
19	H*	3	✓									E	Why wasn't the cross-tie to Unit 1 used to restore Unit 2 pressure instead of the Service Air Compressor (per the ONOP)? No indication of a pipe rupture, so normal loads should be maintained with the cross-tie. PSL action: Will revise stem to read consistent with actions that should be taken and conditions trying to be established. Final status: OK.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
20	H	3	✓									E	Nothing in IC re: status of main condenser vacuum. How know if interlock is met? PSL action: Since was not told vacuum went away, applicants should not assume it is gone. Plus none of the possible answers discuss vacuum, so it isn't an issue. Will get rid of bolded "SDC" in stem. Final status: OK.
21	F	3		✓								E	The second part of 'A' is teaching and is not needed. Change to read "will sequentially close as load is reduced." Change 'B' to read "are individually selected and closed as load is reduced." Change 'C' to read "will close moving together as load is reduced." Change 'D' to read "will close with valves 1, 2, and 3 moving together to close and then valve 4 closing as load is reduced." PSL action: Will make the above changes. Final status: OK.
22	H	3										S	What reference will be provided? Pg 10 of NOP-01.02 makes most of the question a direct lookup. Discuss. PSL action: Did not intend to provide p. 10 of the NOP. Only the graph in App. A. Will include other graphs in reference package. Final status: OK.
23	H	4						SRO only ??	✓			S	Why is this an RO level question? Why is this level of procedure knowledge required to be memorized? How does the applicant know what RCS subcooling is? Are steam tables provided? No references are indicated in the stem. PSL action: This is "big picture" level question and RO's are expected to know this. Will include this expectation in comments for question or change to SRO-only. It was assumed that steam tables are a given so not listed as a separate reference. Examiner agreed. Final status: Changed to SRO-only question. OK.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
24	F	2				✓						E	<p>'A' does not seem plausible. How about "To provide for natural circulation so RCS boron stratification is minimized." Need to reword 'B' to avoid teaching. How about "Cooling from injection flow alone may be insufficient to remove decay heat load." Is there a way to reword 'C' to provide closer linkage to S/Gs?</p> <p>PSL action: Will change "A" and "B" as requested. Will work on "C" to provide more linkage. Examiner agreed that "C" is OK if no linkage is easily devised. <u>Interim Review: Basically OK but now only correct answer 'B' does not start in the same way as all the other 3 distractors. Move end to beginning.</u></p> <p>Final status: OK.</p>
25	F	2										S	<p>Answer is obvious. PSL action: None. Final status: OK.</p>
26	F	2										S	<p>Distractor 'C' needs additional words to make it read more logically. Answer 'D' - add words "use the" before 'safety related'. PSL action: Will add more words to "C". Will add suggested words to "D". <u>Interim Review: Need a couple more wording changes to 'C' and 'D'.</u></p> <p>Final status: OK.</p>
27	F	2										S	<p>PSL action: None. Final status: OK.</p>
28	F	2										S	<p>The admin. section referenced is for <u>short-term</u> or <u>interim</u> shift relief. This is not reflected in the stem. Delete the comma in 'B'. Add the word "and" between 'surveillance with' in 'D'. PSL action: Pointed out that examiner had misinterpreted the admin. section. Consequently stem is OK. Examiner agreed. Will make requested changes to "B" and "D".</p> <p>Final status: OK.</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
29	H	4		✓				SRO only <u>ok</u>				E	Don't quote requirements verbatim out of procedures. Make situational equivalents. For 2 nd bullet in stem, change to something like "Five nuts have been removed from the RVH". Swap 'C' and 'D' positions in question. PSL action: Will make above requested changes. Final status: OK.
30	H	3						SRO only <u>ok</u>				E	Stem is grammatically incorrect. Add "being" between '07-03 declared'. How would the operator know the cause of the N-46 alarm (2 nd part of stem)? Delete if no indicator. 'C' has teaching in it. If no indication, change to "...the leak rate remains below the High/High alarm re-flash setpoint, N-46..." PSL action: Will make above requested changes. Final status: OK.
31	H	3						SRO only <u>ok</u>				E	Not really a "modified" question. Not <u>significantly</u> changed (ES-401, D.2.f, 5 th bullet). Stem not changed at all and only correct answer changed. More like a bank question that is "similar" to PSL '97 NRC exam. Change 'B' - "is" to "will be". (Otherwise reads like the TSA should already have been done.) Also replace 'C' with an incorrect variation of the '97 exam correct answer. PSL action: Will make above requested changes. Will attempt to change "C". Final status: OK.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
32	H	4				✓		SRO only <u>ok</u>				U	All three distractors presume that any attempts at leak isolation will fail ("...after the affected S/G has blown dry"). Nothing in stem would lead to this conclusion so therefore each must be wrong. Also each says "...stabilize RCS temperature and pressure" but 'A' is different. Why? This leaves only 'A' as being a possible correct answer. Why is subcooling 20-200°F required for correct answer (not in reference provided)? PSL action: Will delete the words "after the affected S/G has blown dry" and will change end of "B" to "Maintain RCS subcooling 20-200°F." so it parallels "A". Final status: OK.
33	H	3	✓	✓				SRO only <u>ok</u>				U	Delete 2 nd sentence in stem - teaching and not needed for answer. Add leading "0" to the 1 st and 3 rd activity samples. Change "REFERENCES REQUIRED" to "REFERENCES PROVIDED". Which references will be included? Don't make it a DLU! Swap 'A' with 'B' to get in chronological order. Delete word "indefinitely" from 'D' - avoid absolute terms. In 'D' where did 76% come from? Another T.S. requirement? PSL action: Will make above requested changes. Will include all of T.S. 3.4.8 and will include others as well. 76% is the power at which fig. 3.4-1 of the T.S. would be acceptable given the current activity level (still is wrong answer). <u>Interim Review: 'D' still has word "indefinitely" in it. Delete.</u> Final status: OK.
34	F	1						✓ SRO only <u>no</u>				U	Too easy. Not SRO-only knowledge and not "licensed operator" knowledge. More like GET. Replace. PSL action: Will replace question. Examiner agreed that a different K/A could be used. PSL will propose new one. Final status: Provided new SRO level question. OK.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
35	H	3						SRO only ok				E	Typo - WOOTF...addressed next? Delete name of reference provided from question stem. Say only "REFERENCES PROVIDED". Again, what's being given to applicant?? PSL action: Will make above requested changes. Will provide fig. 2 from EOP-99 and will have other figures as well. Final status: OK.
36	H	3										S	PSL action: None. Final status: OK.
37	H	3										S	PSL action: None. Final status: OK.
38	F	2						SRO only ok				S	Easy. PSL action: None. Final status: OK.
39	H	3										E	1 st bullet - change to "...when a LOOP..." 3 rd bullet - change to "...breaker closed, the feeder..." PSL action: Will make the above requested changes. Final status: OK.
40	H	2+										S	On easy side, but OK. PSL action: None. Final status: OK.
41	H	3	✓			✓						E	In stem, a "loss of all charging" means to me even the back-up pumps didn't work. Are you sure there is no conflict here? PSL action: Agreed that back-up pumps don't work so "D" needs to be revised. Final status: OK.
42	H	3	✓						✓			E	In stem, change to "... which of the following ECCS equipment failed to position properly." Are the operators expected to have memorized how all equipment repositions on a RAS? PSL action: Will make above requested change. Yes, operators are expected to know these required positions of the mini-flow valves due to their importance if they don't reposition properly. Will add this expectation to comments. Final status: OK.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
43	H	4				✓						U	What references are provided? It is a DLU if only pg. 14 of NOP-02.24 is provided. Need to have all distractors water & acid summation add to 642 gal. PSL action: Will review procedure and recommend a resolution to reference that is provided. Had planned only p. 14. Will change distractors so sum of water and acid equal 642 gals. Final status: OK.
44	F	3	✓									E	Stem is too open-ended. Distractor "C" is an OSHA concern and could be argues as correct since the OSP was not referenced in stem. Change stem to - "Per procedure 2-OSP-09.31A, ..." PSL action: Will review and revise stem or possibly change distractor "C". Final status: Changed distractor 'C'. OK.
45	F	3				✓		SRO only ??				E	Change 'A' to - "CEA 56 will not <u>insert</u> on a reactor trip." For 'D' - are RO's expected to have this level of knowledge of T.S.? If not, then 'D' is <u>not</u> plausible (for them, OK for SROs). PSL action: Will make requested change to "A". Yes, RO's are expected to know which T.S. have 1 hour action statements. Will include this expectation in comments. <u>Interim Review:</u> Did not include RO expectation re: T.S. Final status: Changed 'D' to "gripper coil damage in 45 minutes. OK.
46	H	3	✓					SRO only ??				E	This question is a little above what an RO needs to know. Though border-line, OK to be SRO-only. In the stem - is the word "require" appropriate? Seems like "allow" or "permit" would be better. Also, change word "events" in stem to "plant conditions" or "plant situations". PSL action: Will revise stem as requested. Will make it SRO-only. Final status: Changed to SRO-only. OK.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Backward		
47	H	3	✓									E	Change stem - "A loss of offsite power occurs. The 2A and 2B Diesel Generators start and tie to their respective busses. Assuming no operator action, which of the following describes how the AFW system responds to this event?" PSL action: Will make above requested changes. Final status: OK.
48	H	3										S	PSL action: None. Final status: OK.
49	F	3										S	PSL action: None. Final status: OK.
50	H	3					✓					U	Doesn't appear to be any correct answer. Vacuum has not been restored so BPVs are stilled blocked. Need to reword stem conditions or change answers. Also, be consistent in the use of abbreviations and acronyms. Have used SBSCS in another question without defining it. Is it common terminology? If so, use only the acronym. PSL action: Agreed wording in stem is confusing. Will change to "condenser backpressure" and make other changes if necessary to clarify. Will review all questions to ensure consistency in use of acronyms. Final status: OK.
51	F*	2										S	Easy. Only a "F" LOK. Not a modified question. Just an updated bank question with no substantive changes. PSL action: Will change LOK to F. Since never in bank but from '99 exam that wasn't given, examiner agreed this is a "new" question. Final status: OK.
52	F	2						SRO only ??				E	Easy. Is this an RO level question? (Borderline, can go either way. Just need to be consistent.) PSL action: Yes, RO's are expected to know contingency actions from memory. (Originally all of SPTA was required to be from memory, but just recently changed.) Will include expectation in comments or make it SRO-only. Final status: OK.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
53	F	2							✓			S	Easy. Is this question being asked at the right level? Is it trivia? PSL action: Discussed with examiner that this was basic understanding of RVL monitoring system. Final status: OK.
54	H	2										S	PSL action: None. Final status: OK.
55	H	3+	✓					SRO only <u>ok</u>	✓			E	What is a "duel event"? Are they to guess what the two things are? Not sure why this is relevant. Do they do status trees from memory. Change stem to "dual" (not duel) and "Success Paths". What does "meeting Figure 2" mean? Is it provided as a reference? (No references are indicated.) PSL action: Typo will be corrected. "Dual event" is well understood term by operators and is entry condition to EOP-15. SROs are expected to know "big picture" of Success Paths. Can eliminate all wrong distractors due to initial conditions given. "Meeting figure 2" is normally how SRO receives the status of SI flow in this situation if it is satisfactory. Final status: OK.
56	F	2						SRO only <u>no</u>				S	Not "Modified". Conditions in stem not changed but since was from the canceled exam - doesn't matter. Treat as "new". PSL action: Will treat as new but need to rewrite to increase question level to SRO-only. Final status: Changed to SRO-only question. OK.
57	F	3				c		SRO only <u>no</u>				E	What LOK does PSL consider this question? Have 2 versions in book. For 'C' - How do you know that the temperature is "controlled?" 'C' might be argued as correct. Could not locate the reference for EB on a temperature increase. Better is say "and then stabilizes" for both 'C' and 'D'. PSL action: LOK is only a 1. Other version wrong but don't know how it got in submittal package. Will change "C" and "D" as requested above. Emerg. Boration is an ONOP. Copy was provided on CD. Final status: OK.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
58	F	3	✓					SRO only <u>ok</u>				E	Explain. PSL action: Explained condenser vacuum readings. Stem is fine as is. Final status: OK.
59	F	2										S	PSL action: None. Final status: OK.
60	H	2										S	Simple but K/A is valid. PSL action: None. Final status: OK.
61	F	2						SRO only <u>no</u>				E	Seems obvious, recommend listing the specific action for 'C' other than the general term "Terminate the release." 'B' & 'D' are poor distractors. PSL action: Will use valve numbers in 'A' & 'C'. Final status: OK.
62	H	3					c	SRO only <u>no</u>				U	'C' is correct. Although PCV 18-6 is not receiving a closed signal in this situation, it could still be "failed open" In other words, IF 18-5 and 18-6 were failed open, they would exhibit the symptoms described in the stem. Recommend change C to "PCV 18-16... has failed to close." PSL action: Will use recommendation. Final status: OK.
63	F	2										S	Need a power level in the stem <11% to make 'D' plausible. PSL action: Will put in start-up power level as well as SUR. This will also increase LOK to "H". Final status: OK.
64	H	3										S	Very similar to #124, "effect of losing an instrument bus". PSL action: None Final status: OK.
65	F	3						SRO only <u>ok</u>				S	I don't see the value in knowing if a procedure is entered directly or not. K/A: Knowledge of EOP mitigation strategies. [App. B C.1.e] PSL action: None. CE agreed that this was an appropriate question. Final status: OK.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
66	F*	2										S	Might want to give some info on the CCW system lineup prior to the failure e.g. 100% power middle of summer. PSL action: Will include pwr level. Final status: OK.
67	F	1		a								U	Distractors listed as ACDD. Wording of A makes it obvious "significantly above" during "steady state". (App B: C.1.g avoid copying text directly from reference material.) [App B: C.2.m (9) specific determiner] PSL action: Change answer which is taken directly from procedure and/or modify distractors so they are similar in nature to the answer. Final status: OK.
68	H	2										E	We need the word "independently" in the stem, otherwise the other answers might be argued correct with additional assumptions. [App B C.1.c] The word "exceeds" is leading in answer B, should change to a specific value. [App B: C.2.m (9) specific determiner]. PSL action: Add "in itself" before require. Change B to "calculated 12 gpm leak". Final status: OK.
69	F	3										S	Should we have a valve name for "C". "C" is not totally accurate because you don't close the valve you "Ensure it is closed." Recommend changing "B" and "C" to "Ensure... is closed." The question and the explanation have different words for "C". Which was intended? PSL action: OK as is, will add noun names for consistency. Final status: OK.
70	H	3	X									E	Does not flow grammatically. The stem asks for a "method" but the distractors are "flowpaths". Not sure what is wrong with the other distractors other than they are not listed in EOP-15. Is there a basis for using HPSI over the other flowpaths? PSL action: Change "method" to "flowpath" and adjust 'B' accordingly. Final status: OK.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
71	F	3				cd						E	"C" and "D" are not very operational. Could come up with a more plausible distractor from EOPs. [App B C.2.g use common misconceptions] PSL action: Will change 'C' if there are any examples of C and D found in the EOPs. Final status: OK.
72	H	3										S	OVERLAP WITH OP. TEST - This is JPM #4. Replace. PSL action: Not sure, they will check JPMs. Changed question to Unit 1 which is operated differently. Final status: OK.
73	H	2					a					U	"A" is also correct, a loss of RCS pressure will result in a loss of subcooling margin. "C" is also correct. Recommend adding values to each. PSL action: Will add plausible values to the parameters. Also fix stem wording. Final status: OK.
74	H	2										S	Pretty simple given PZR level increasing. PSL action: None Final status: OK.
75	H	3										S	D seems to be the correct answer "prevent dryout"? PSL action: OK as is Final status: OK.
76	F	2										S	PSL action: None. Final status: OK.
77	H	3										S	PSL action: None. Final status: OK.
78	H*	3										S	PSL action: None. Final status: OK.
79	F*	2										S	Simple. PSL action: Final status: OK.
80	H	3										S	PSL action: None. Final status: OK.
81	F	2										S	PSL action: None. Final status: OK.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
82	F*	3										S	Does being in Mode 4 means the valve is accessible? Otherwise "C" might be argued as correct. PSL action: None Final status: OK.
83	F	3										S	typo in stem "removing of its fuses". PSL action: Will change. Final status: OK.
84	F	3				d						E	"D" not plausible, answer seems obvious. App. B, C.2.h PSL action: Address original operability issue or find better distractor for D. <u>Interim Review: 'A' may now be correct due to change in stem, will use old stem removing "DG output" and use new distractors</u> Final status: OK.
85	H	3						SRO only ok				S	PSL action: None. Final status: OK.
86	H	3				ac		SRO only ok				E	We did not give a value in the stem so why would someone think that distractor "A", "increasing leak flow" makes a difference? Are references provided? Not sure how the answer is arrived at. PSL action: None. Final status: OK.
87	F	2						SRO only ok				S	PSL action: None. Final status: OK.
88	F	2	X					SRO only ok				E	Can't tell from stem if a fire exists or not? Seems obvious you would go in containment if there is a fire, add "only" to "A" and "D". PSL action: Will add "only" to stem. Final status: OK.
89	F	3										S	PSL action: None. Final status: OK.
90	F	3										S	PSL action: None. Final status: OK.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
91	F	2						x				U	KA is ability monitor automatic operation of Fire Protection System. Question is an industrial safety one. [App. B C.1.b match the K/A intent]. PSL action: <i>Replace question.</i> Final status: New question OK.
92	F	3	x				c			x		U	I do not think the word "minimum" precludes "C" from being right. You can't quantitatively compare "A" and "C" since they are different parameters. [App B. C.1.c] PSL action: <i>Will change stem.</i> Final status: OK.
93	H	4										S	Too much math in my opinion. With the reference provided, this is nothing more than a long math problem. You are more likely to make a math error than detect a technical misunderstanding. [App. B C.1.b match the K/A intent] PSL action: <i>None</i> Final status: OK.
94	F	2										S	PSL action: <i>None.</i> Final status: OK.
95	F	3					a	x	x			U	What value is there in testing if a parameter is listed in the procedure or not? [App B C.1.e irrelevant question] PSL action: <i>None.</i> Final status: OK.
96	H	4										S	PSL action: <i>None.</i> Final status: OK.
97	F	2										S	PSL action: <i>None.</i> Final status: OK.
98	F	2										S	PSL action: <i>None.</i> Final status: OK.
99	H	3						SRO only ??				S	How is this an RO level question? It is testing T.S. operability. PSL action: <i>Expect RO's to know this. Reviewing. Will swap if can find another T3 question.</i> Final status: OK.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward		
100	H	3						SRO only ok				S	Are the SFSCS criteria required to be known from memory? PSL action: Will discuss expectations with Ops. Supervisor. Final status: OK.
101	H	3		x				SRO only no				U	"D" can not be correct because "A" would have to be correct too. "A" is a subset of "D". Again, the use of the word "minimum" among varied parameters cued me into "B" or "C". [App B: C.2.m (9) specific determiner]. PSL action: Will change 'D' to reset B1 and B4 heaters. Final status: OK.
102	H	3						SRO only ok				S	PSL action: None. Final status: OK.
103	F*	2										S	Simple. Not a higher LOK, only F. PSL action: None Final status: OK.
104	H	2										S	PSL action: None. Final status: OK.
105	H				x							U	Providing the formula and the numbers makes the recirc time a given. This is a True/False between "B" and "D". [App B: C.2.a] PSL action: Will remove recirc time and focus question on how equalization is accomplished. Interim Review: 'C' should say reduce vice raise. Explanations for 'C' and 'D' should also say reduce. Final status: OK.
106	F	2				x						E	None of the distractors are within the plausible realm. I would change to 2, 4, 8, and 12. [App B: C.2.h] PSL action: Will use recommendation. Final status: OK.
107	H	3										S	PSL action: None. Final status: OK.
108	H	2										S	PSL action: None. Final status: OK.
109	H	3										S	Simple, but K/A is valid. PSL action: None. Final status: OK.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
110	F	3						?				S	This could be considered an SRO only level question. PSL action: None. Final status: OK.
111	H	3										S	PSL action: None. Final status: OK.
112	F*											E	Question does not make sense to me. Items under <u>Location</u> are not locations of the leak but methods for locating the leak. Not sure what we are testing. PSL action: Will revise wording Final status: OK.
113	F	3					c					E	Is 'C' correct? Can this be done without restoring offsite power? Again the word "minimum" is used among unrelated terms. PSL action: None. Final status: OK.
114	F	2										S	PSL action: None. Final status: OK.
115	F	2	x			a						E	Typo in stem: change to "... which one of the methods..." "A" is not plausible in Mode 6. PSL action: Develop new distractor for 'A'. Final status: OK.
116	H	3										S	Same as question #123. PSL action: New question for #123 Final status: OK.
117	H	2										S	Simple but KA is valid. PSL action: None. Final status: OK.
118	H**	2**										U	Simple looking up given numbers on a provided graph does not require any understanding of system. NOTE(**): Change IC so applicant has to determine which temperature to use will raise LOK. This will also raise the LOD. PSL action: Expand to test knowledge of which temperature indicator is used. Final status: OK.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
119	F	3				x			?			U	Is this an Operations function? Again use term Minimum among unrelated topics. The word minimum cued me to "A" or "C" since they are the only ones measuring the same thing. [APP B: C.2.m (1)] PSL action: <i>They agree but struggled with K/A. Discuss.</i> Final status: DELETED, New RO only question OK
120	F	3			x							E	Only "C" and "D" are related to the K/A for containment. [App B C. 2.c] PSL action: <i>None.</i> Final status: OK.
121	F	2							x			U	How does this discriminate? If you are doing the procedure, it tells you what to time. [App. B: C.1.e] PSL action: <i>Need to review again.</i> Final status: OK.
122	F	2						SRO only <u>no</u>				S	This is <u>not</u> SRO only level of knowledge. RO's should know this as well. PSL action: <i>Will change to "Both".</i> Final status: OK.
123	F	2										S	Same as question 116? PSL action: <i>None.</i> Final status: OK
124	F*	2						SRO only <u>no</u>				S	This is <u>not</u> an SRO only level of knowledge. RO's should know this as well. Simple, similar to question #64. PSL action: <i>Will review.</i> Final status: OK.
125	F	2						SRO only <u>ok</u>				S	Stem not grammatically correct (which of the following criteria can CS may be secured). Is Recovery Manager part of TSC? If so, "D" is also correct. PSL action: <i>Remove 2nd line of stem.</i> Final status: OK.
126	F	3						SRO only <u>no</u>				S	This is <u>not</u> SRO only level of knowledge. RO's should know this as well. Some typos "which of the following is correct response". PSL action: <i>Will fix.</i> Final status: OK.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
127	F	3						SRO only <u>ok</u>				S	Are Safety functions required to be know from memory? PSL action: Will discuss with Ops. Supv. Final status: OK.
128	H	3						SRO only <u>ok</u>				S	Is this TS required to be know from memory? Is a reference expected? PSL action: Will discuss with Ops. Supv. Final status: OK.

Facility: St. Lucie 00-301		Date of Examination: 2/7-9-00		Operating Test Number: 1	
1. GENERAL CRITERIA		Initials			
		a	b	c	
a.	The operating test conforms with the previously approved outline; changes are consistent with sampling requirements (e.g., 10 CFR 55.45, operational importance, safety function distribution).	LA	Py	DB	
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	LA	Py	DB	
c.	The operating test shall not duplicate items from the applicants' audit test(s) (see Section D.1.a).	LA	Py	DB	
d.	Overlap with the written examination and between operating test categories is within acceptable limits.	LA	Py	DB	
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	LA	Py	DB	
2. WALK-THROUGH (CATEGORY A & B) CRITERIA		--	--	--	
a.	Each JPM includes the following, as applicable: <ul style="list-style-type: none"> initial conditions initiating cues references and tools, including associated procedures validated time limits (average time allowed for completion) and specific designation if deemed to be time critical by the facility licensee specific performance criteria that include: <ul style="list-style-type: none"> detailed expected actions with exact criteria and nomenclature system response and other examiner cues statements describing important observations to be made by the applicant criteria for successful completion of the task identification of critical steps and their associated performance standards restrictions on the sequence of steps, if applicable 	LA	Py	DB	
b.	The prescribed questions in Category A are predominantly open reference and meet the criteria in Attachment 1 of ES-301.	LA	Py	DB	
c.	Repetition from operating tests used during the previous licensing examination is within acceptable limits (30% for the walk-through) and do not compromise test integrity.	LA	Py	DB	
d.	At least 20 percent of the JPMs on each test are new or significantly modified.	LA	Py	DB	
3. SIMULATOR (CATEGORY C) CRITERIA		--	--	--	
a.	The associated simulator operating tests (scenario sets) have been reviewed in accordance with Form ES-301-4 and a copy is attached.	LA	Py	DB	
Printed Name / Signature		Date			
a. Author	LAWRENCE M. RICH	12-13-99			
b. Facility Reviewer(*)	Robert W. Lindsey	12/17/99			
c. NRC Chief Examiner (*)	D. Charles Payne	1/20/00			
d. NRC Supervisor (*)	G.T. Hopper	2/3/00			
(*) The facility signature is not applicable for NRC-developed tests; two independent NRC reviews are required.					

Facility: St. Lucie 00-301		Date of Exam: 2/7-9-00		Scenario Numbers: 1 / 2 / 3		Operating Test No.: 1	
QUALITATIVE ATTRIBUTES			Initials				
			a	b	c		
1.	The initial conditions are realistic, in that some equipment and/or instrumentation may be out of service, but it does not cue the operators into expected events.	✓	Py	Ⓟ			
2.	The scenarios consist mostly of related events.	✓	Py	Ⓟ			
3.	Each event description consists of · the point in the scenario when it is to be initiated · the malfunction(s) that are entered to initiate the event · the symptoms/cues that will be visible to the crew · the expected operator actions (by shift position) · the event termination point (if applicable)	✓	Py	Ⓟ			
4.	No more than one non-mechanistic failure (e.g., pipe break) is incorporated into the scenario without a credible preceding incident such as a seismic event.	✓	Py	Ⓟ			
5.	The events are valid with regard to physics and thermodynamics.	✓	Py	Ⓟ			
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	✓	Py	Ⓟ			
7.	If time compression techniques are used, the scenario summary clearly so indicates. Operators have sufficient time to carry out expected activities without undue time constraints. Cues are given.	✓	Py	Ⓟ			
8.	The simulator modeling is not altered.	✓	Py	Ⓟ			
9.	The scenarios have been validated. Any open simulator performance deficiencies have been evaluated to ensure that functional fidelity is maintained while running the planned scenarios.	✓	Py	Ⓟ			
10.	Every operator will be evaluated using at least one new or significantly modified scenario. All other scenarios have been altered in accordance with Section D.4 of ES-301.	✓	Py	Ⓟ			
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	✓	Py	Ⓟ			
12.	Each applicant will be significantly involved in the minimum number of transients and events specified on Form ES-301-5 (submit the form with the simulator scenarios).	✓	Py	Ⓟ			
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.	✓	Py	Ⓟ			
TARGET QUANTITATIVE ATTRIBUTES (PER SCENARIO; SEE SECTION D.4.D)		Actual Attributes	--	--	--		
1.	Total malfunctions (5-8)	6 1 7 1 6	✓	Py	Ⓟ		
2.	Malfunctions after EOP entry (1-2)	1 1 1 1 1	✓	Py	Ⓟ		
3.	Abnormal events (2-4)	4 1 4 1 4	✓	Py	Ⓟ		
4.	Major transients (1-2)	2 1 1 1 1	✓	Py	Ⓟ		
5.	EOPs entered/requiring substantive actions (1-2)	1 1 1 1 2	✓	Py	Ⓟ		
6.	EOP contingencies requiring substantive actions (0-2)	1 1 1 1 1	✓	Py	Ⓟ		
7.	Critical tasks (2-3)	2 1 3 1 2	✓	Py	Ⓟ		

OPERATING TEST NO: 1 RCO

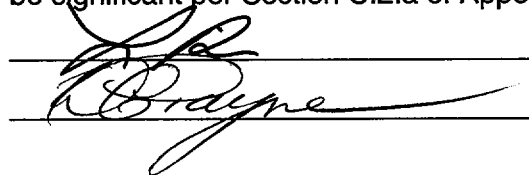
Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2	3	4
RO	Reactivity	1	1			
	Normal	1		2,5		
	Instrument	2	3	6		
	Component	2	5	8		
	Major	1	6	7		
As RO SRO-I As SRO	Reactivity	1				
	Normal	0				
	Instrument	1				
	Component	1				
	Major	1				
	Reactivity	0				
	Normal	1				
	Instrument	1				
	Component	1				
	Major	1				
SRO-U	Reactivity	0				
	Normal	1				
	Instrument	1				
	Component	1				
	Major	1				

Instructions

- (1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
- (2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.

Author:

Chief Examiner:



OPERATING TEST NO: 1 SRO-U2

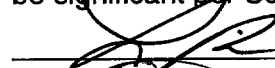

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2	3	4
RO	Reactivity	1				
	Normal	1				
	Instrument	2				
	Component	2				
	Major	1				
As RO	Reactivity	1				
	Normal	0				
	Instrument	1				
	Component	1				
	Major	1				
SRO-I						
	Reactivity	0				
	Normal	1				
	Instrument	1				
	Component	1				
As SRO	Major	1				
	Reactivity	0				
	Normal	1				
	Instrument	1				
	Component	1				
SRO-U	Major	1				
	Reactivity	0	1			
	Normal	1	1			
	Instrument	1	3,4			
	Component	1	2,5,7			
SRO-U	Major	1	6			

Instructions:

- (1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
- (2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.

Author:

Chief Examiner:

OPERATING TEST NO: 1 SRO-U1

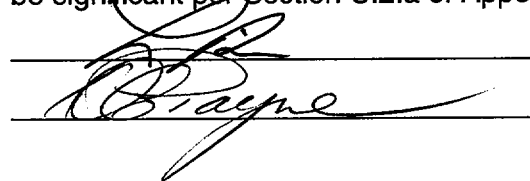
Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2	3	4
RO	Reactivity	1				
	Normal	1				
	Instrument	2				
	Component	2				
	Major	1				
As RO	Reactivity	1				
	Normal	0				
	Instrument	1				
	Component	1				
	Major	1				
SRO-I						
	Reactivity	0				
	Normal	1				
	Instrument	1				
	Component	1				
As SRO	Major	1				
	Reactivity	0	1			
	Normal	1	1			
	Instrument	1	3,4			
	Component	1	2,5,7			
SRO-U	Major	1	6			

Instructions:

- (1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
- (2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.

Author:

Chief Examiner:



OPERATING TEST NO: 1 SRO-I

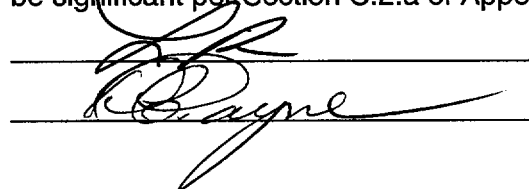
Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2	3	4
RO	Reactivity	1				
	Normal	1				
	Instrument	2				
	Component	2				
	Major	1				
As RO	Reactivity	1	1			
	Normal	0				
	Instrument	1	3			
	Component	1	5			
	Major	1	6			
As SRO	Reactivity	0		2		
	Normal	1		2,5		
	Instrument	1		3,6		
	Component	1		1,4,8,9		
	Major	1		7		
SRO-U	Reactivity	0				
	Normal	1				
	Instrument	1				
	Component	1				
	Major	1				

Instructions:

- (1) Enter the operating test number and Form ES-D-1 event numbers for each evolution type.
- (2) Reactivity manipulations may be conducted under normal or *controlled* abnormal conditions (refer to Section D.4.d) but must be significant per Section C.2.a of Appendix D.

Author:

Chief Examiner:



St. Lucie Plant 00-301 Date of Exam 2/7-9-00

Competencies	Applicant #1 RO-1				Applicant #2 SRO-I				Applicant #3 SRO-U1			
	SCENARIO				SCENARIO				SCENARIO			
	(a) 1	(b) 2			(a) 1	(s) 2			(s) 1			
Understand and Interpret Annunciators and Alarms	3,4,6	1,4,6,7			3,4,6	1,3,4,5,6,7			2,3,4,5,6			
Diagnose Events and Conditions	3,4	1,6,7			3,4	1,3,4,5,6,7			2,3,4,5,6			
Understand Plant and System Response	1,3,4,6	1,4,6,7			1,3,4,6	1,2,3,4,5,6			1,2,3,4,5,6			
Comply With and Use Procedures (1)	1,3,4,6	2,4,7			1,3,4,6	3,5,7			1,3,4,5,6			
Operate Control Boards (2)	*	1,4,7			*	N/A			N/A			
Communicate and Interact With the Crew	*	*			*	*			*			
Demonstrate Supervisory Ability (3)	N/A	N/A			N/A	*			*			
Comply With and Use Tech. Specs. (3)	N/A	N/A			N/A	5			3,5			

Notes: * Competency satisfied in ALL events.

(1) Includes Technical Specification compliance for an RO.
 (2) Optional for an SRO-U.
 (3) Only applicable to SROs.

Instructions:

Circle the applicant's license type and enter one or more event numbers that will allow the examiners to evaluate every applicable competency for every applicant.

Author: _____

Chief Examiner: _____

St. Lucie Plant 00-301 Date of Exam 2/7-9-00

Competencies	Applicant #4 SRO-U2											
	SCENARIO				SCENARIO				SCENARIO			
	(s) 1	2	3	4	1	2	3	4	1	2	3	4
Understand and Interpret Annunciators and Alarms	2,3, 4,5, 6											
Diagnose Events and Conditions	2,3, 4,5, 6											
Understand Plant and System Response	1,2, 3,4, 5,6											
Comply With and Use Procedures (1)	1,3, 4,5, 6											
Operate Control Boards (2)	N/A											
Communicate and Interact With the Crew	*											
Demonstrate Supervisory Ability (3)	*											
Comply With and Use Tech. Specs. (3)	3,5											

Notes: * Competency satisfied in ALL events.

(1) Includes Technical Specification compliance for an RO.
 (2) Optional for an SRO-U.
 (3) Only applicable to SROs.

Instructions:

Circle the applicant's license type and enter one or more event numbers that will allow the examiners to evaluate every applicable competency for every applicant.

Author: _____

Chief Examiner: _____

Facility: ST. LUCIE		Date of Exam: 2/10/2000		Exam Level: RO/SRO	
Item Description		Initials			
		a	b	c	
1.	Answer key changes and question deletions justified and documented	ME	N/A	Ⓟ	
2.	Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	ME	N/A	Ⓟ	
3.	Grading for all borderline cases (80% +/- 2%) reviewed in detail	N/A	N/A	N/A Ⓟ	
4.	All other failing examinations checked to ensure that grades are justified	N/A	N/A	N/A Ⓟ	
5.	Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	ME	N/A	Ⓟ	
Printed Name / Signature		Date			
a. Grader	Mike Ernstes / <u>Mike Ernstes</u>	<u>2/23/00</u>			
b. Facility Reviewer(*)	N/A				
c. NRC Chief Examiner (*)	D. Charles Payne / <u>D. Charles Payne</u>	<u>2/24/00</u>			
d. NRC Supervisor (*)	George Hopper / <u>George J. Hopper</u>	<u>2/24/00</u>			
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.					

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 2/7/00 as of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to instruct, evaluate, or provide performance feedback to those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration, except as specifically noted below and authorized by the NRC. Furthermore, I am aware of the physical security measures and requirements (as documented in the facility licensee's procedures) and understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

2. Post-Examination

To the best of my knowledge, I did not divulge to any unauthorized persons any information concerning the NRC licensing examinations administered during the week(s) of 2/7/00. From the date that I entered into this security agreement until the completion of examination administration, I did not instruct, evaluate, or provide performance feedback to those applicants who were administered these licensing examinations, except as specifically noted below and authorized by the NRC.

PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE	NOTE
1. <u>JEFFREY Fox</u>	<u>Instructor / Exam Review</u>	<u>[Signature]</u>	<u>12-6-99</u>			①
2. <u>Richard Bretton</u>	<u>Instructor / Exam Review</u>	<u>[Signature]</u>	<u>11-18-99</u>		<u>2-14-00</u>	
3. <u>WC. Miller</u>	<u>Instructor / Exam Review</u>	<u>[Signature]</u>	<u>11-18-99</u>			①
4. <u>Michael A. Perry</u>	<u>Instructor / Exam Review</u>	<u>[Signature]</u>	<u>12-02-99</u>	<u>[Signature]</u>	<u>2/14/00</u>	
5. <u>R.R. SCOTT</u>	<u>RCO / SIMULATOR</u>	<u>[Signature]</u>	<u>12-3-99</u>	<u>[Signature]</u>	<u>2/11/00</u>	
6. <u>LR MARTIN</u>	<u>NPS / Simulator</u>	<u>[Signature]</u>	<u>12/4/99</u>	<u>[Signature]</u>	<u>3/7/00</u>	
7. <u>S. Cassidy</u>	<u>RCO / Simulator</u>	<u>[Signature]</u>	<u>12/4/99</u>	<u>[Signature]</u>	<u>3/13/00</u>	
8. <u>R.A. Folk</u>	<u>RCO / Exam Review</u>	<u>[Signature]</u>	<u>12/14/99</u>	<u>[Signature]</u>	<u>2/14/00</u>	
9. <u>W. J. CASIAS</u>	<u>SRCO EXAM Review</u>	<u>[Signature]</u>	<u>12/14/99</u>	<u>[Signature]</u>	<u>2-14-00</u>	
10. <u>J.D. CARPENTER</u>	<u>SRO/RCO SIM EXAM</u>	<u>[Signature]</u>	<u>2/7/00</u>	<u>[Signature]</u>	<u>2/11/00</u>	
11. <u>A.T. HALL</u>	<u>SR PLANT ENG. / STA</u>	<u>[Signature]</u>	<u>2/8/00</u>	<u>[Signature]</u>	<u>2/10/00</u>	
12.						
13.						
14.						
15.						

NOTES:

① SEE FAXED COPY

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 6-28
99 as of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to participate in any instruction, evaluation, or other training-related activities involving those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration. I further understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

2. Post-Examination

To the best of my knowledge, I did not divulge to any unauthorized persons any information concerning the NRC licensing examinations administered during the week(s) of 2/7/00. From the date that I entered into this security agreement until the completion of examination administration, I did not participate in any training-related activities involving those applicants who were administered these licensing examinations.

PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE
1. <u>V. KORTH</u>	<u>ANPS / ^{ANA} exam review</u>	<u>[Signature]</u>	<u>5-7-99</u>	<u>[Signature]</u>	<u>2-14-00</u>
2. <u>Winston A. Ryley</u>	<u>RCD / Validation</u>	<u>[Signature]</u>	<u>5-7-99</u>	<u>[Signature]</u>	<u>2-21-00</u>
3. <u>Adam J. Scales</u>	<u>ASST OPS SUPERVISOR / Review</u>	<u>[Signature]</u>	<u>5-10-99</u>	<u>[Signature]</u>	<u>02/11/00</u>
4. <u>Jeff Folden</u>	<u>ANPS / Review</u>	<u>[Signature]</u>	<u>5-10-99</u>	<u>[Signature]</u>	<u>2/14/00</u>
5. <u>C.D. LADD</u>	<u>OPS. SCRPV. / REVIEW APPROVE</u>	<u>[Signature]</u>	<u>5/10/99</u>	<u>[Signature]</u>	<u>2/14/00</u>
6. <u>M.H. ALLA</u>	<u>ops mgr. / Review exam</u>	<u>[Signature]</u>	<u>5/10/99</u>	<u>[Signature]</u>	<u>(1)</u>
7. <u>Gary Hollinger</u>	<u>Asst. Trng Mgr. / Operation Trng Oversight</u>	<u>[Signature]</u>	<u>5/12/99</u>	<u>[Signature]</u>	<u>(2)</u>
8. <u>Jim McNelly</u>	<u>SPEAKOUT</u>	<u>[Signature]</u>	<u>02/04/99</u>	<u>[Signature]</u>	<u>03/06/00</u>
9. <u>Ron Lauver</u>	<u>Training</u>	<u>[Signature]</u>	<u>9-16-99</u>		
10.					

① EMPLOYMENT TERMINATED 6/99

② SEE FAXED COPY

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 6-28 99 as of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to participate in any instruction, evaluation, or other training-related activities involving those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration. I further understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

2. Post-Examination

To the best of my knowledge, I did not divulge to any unauthorized persons any information concerning the NRC licensing examinations administered during the week(s) of 2-7-00. From the date that I entered into this security agreement until the completion of examination administration, I did not participate in any training-related activities involving those applicants who were administered these licensing examinations.

PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE
1. T. BOLANDER	AUTHOR	T. Bolander	1-4-99	T. Bolander	3-2-00
2. R.A. WALKER		R.A. Walker	2-10-99	R.A. Walker	2/14/00
3. W.C. MILLER	Reviewer	W.C. Miller	2-11-99		
4. JEFFREY FOY	REVIEWER	Jeffrey Foy	11 Feb 99		
5. GEORGE LOREC	SIMULATOR STAFF	George Lorec	22 MAR 99	George Lorec	2/10/00
6. C.D. MARPLE	REVIEWER	C.D. Marple	3/31/99	C.D. Marple	2/21/00
7. JIM FIORI	WRITTEN EXAM RO	Jim Fiori	4-22-99	Jim Fiori	3/2/00
8. CARLOS DE LA GUARDIA	WRITTEN EXAM ROO	Carlos de la Guardia	4-22-99	Carlos de la Guardia	3-2-00
9. L. CHURCH (LAWRENCE)	OPS RTTC / OPERATION	L. Church	4/22/99	L. Church	2/10/00
10. LARRY RICH	OPS TRAINING SUPV.	Larry Rich	4/22/99	Larry Rich	2-10-00

① Participated in a LOR^{simulator} evaluation in which Rick Bashwiner & G. Zoudakis were RCO's. C. Marple evaluated the SRO's and provided no feedback to Bashwiner or Zoudakis. 11/29/99

2. C. Marple had specific knowledge of the written exam only.

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of ~~2-7-99~~ ²⁻⁷⁻⁰⁰ as of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to instruct, evaluate, or provide performance feedback to those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration, except as specifically noted below and authorized by the NRC. Furthermore, I am aware of the physical security measures and requirements (as documented in the facility licensee's procedures) and understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

2. Post-Examination

To the best of my knowledge, I did not divulge to any unauthorized persons any information concerning the NRC licensing examinations administered during the week(s) of ~~2-7-00~~ From the date that I entered into this security agreement until the completion of examination administration, I did not instruct, evaluate, or provide performance feedback to those applicants who were administered these licensing examinations, except as specifically noted below and authorized by the NRC.

PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE	NOTE
1. M.D. Shepherd	Ops Trng Supv	<i>M.D. Shepherd</i>	9-29-99			①
2. Ron Lawler	Ops Trng Instructor	<i>Ron Lawler</i>	9-30-99	<i>Ron Lawler</i>	2-10-00	
3. Robert W. Lindsey	Training Manager	<i>Robert W. Lindsey</i>	10/21/99	<i>Robert W. Lindsey</i>	2/10/00	
4. Brian Nichols	SRLOC	<i>Brian Nichols</i>	11/2/99	<i>Brian Nichols</i>	2-11-00	
5. Andrew Terezakis	ANPS	<i>Andrew Terezakis</i>	11/4/99	<i>Andrew Terezakis</i>	2-15-00	
6. Jeff McKenzie	RLO	<i>Jeff McKenzie</i>	11/4/99	<i>Jeff McKenzie</i>	2/15/00	
7. B.G. West	P6m	<i>B.G. West</i>	11/12/99	<i>B.G. West</i>	2/11/00	
8. JA STALL	VP	<i>JA STALL</i>	11/13/99	<i>JA STALL</i>	2/14/00	
9. J. CHARLES COUTURE	OPS TRAINING INSTRUCTOR	<i>J. Charles Couture</i>	23 NOV 99	<i>J. Charles Couture</i>	15-FEB-2000	
10. JAMES MARTIN	TRNG SIMULATOR SUPV	<i>James Martin</i>	11/23/99	<i>James Martin</i>	2/10/00	
11.	ADMIN. CLERK / COPY					
12.	OPS INSTRUCTOR / VALIDATE					
13.	OPS MANAGER / VALIDATE					
14. Reid Watson	TRN Simulator Engineer	<i>Reid Watson</i>	11/30/99	<i>Reid Watson</i>	2/10/2000	
15.						

NOTES: ① EMPLOYMENT TERMINATED 12/99

1. Pre-Examination

FAXED COPY (SEE NOTE)

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 2/7/00 as of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to instruct, evaluate, or provide performance feedback to those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration, except as specifically noted below and authorized by the NRC. Furthermore, I am aware of the physical security measures and requirements (as documented in the facility licensee's procedures) and understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

2. Post-Examination

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PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE NOTE
1. <u>Jeffrey Fox</u>	<u>Instructor / Exam Review</u>	<u>[Signature]</u>	<u>12-16-99</u>	<u>[Signature]</u>	<u>2-Mar-00</u> ①
2. <u>Richard Bretton</u>	<u>Instructor / Exam Review</u>	<u>[Signature]</u>	<u>11-18-99</u>	<u>[Signature]</u>	<u>2-14-00</u>
3. <u>W.C. Miller</u>	<u>Instructor / Exam Review</u>	<u>[Signature]</u>	<u>11-18-99</u>	<u>W.C. Miller</u>	<u>03-07-00</u> ①
4. <u>Michael A. Perry</u>	<u>Instructor / Exam Review</u>	<u>[Signature]</u>	<u>12-02-99</u>	<u>[Signature]</u>	<u>2/11/00</u>
5. <u>R.D. SCOTT</u>	<u>RCD / SIMULATOR</u>	<u>[Signature]</u>	<u>12-3-99</u>	<u>[Signature]</u>	<u>2/11/00</u>
6. <u>J.R. Martin</u>	<u>NPS / Simulator</u>	<u>[Signature]</u>	<u>12/4/99</u>		
7. <u>S. Cassidy</u>	<u>RCD / Simulator</u>	<u>[Signature]</u>	<u>12/4/99</u>		
8. <u>R.A. Folk</u>	<u>RCD / Exam Review</u>	<u>[Signature]</u>	<u>12/14/99</u>	<u>[Signature]</u>	<u>2/11/00</u>
9. <u>W. J. CASIAS</u>	<u>SRCD EXAM Review</u>	<u>[Signature]</u>	<u>12/14/99</u>	<u>[Signature]</u>	<u>2-14-00</u>
10. <u>J.D. CARPENTER</u>	<u>SRD/RCD SIM EXAM</u>	<u>[Signature]</u>	<u>2/7/00</u>	<u>[Signature]</u>	<u>2/11/00</u>
11. <u>A.T. HALL</u>	<u>SR-PLANTENG. / STA</u>	<u>[Signature]</u>	<u>2/8/00</u>	<u>[Signature]</u>	<u>2/10/00</u>
12. _____	_____	_____	_____	_____	_____
13. _____	_____	_____	_____	_____	_____
14. _____	_____	_____	_____	_____	_____
15. _____	_____	_____	_____	_____	_____

NOTES: ① SIGNATURE (2), ORIGINAL SIGNATURES FROM FAXED COPY

FAXED COPY (SEE NOTE)

ES-201

Examination Security Agreement

Form ES-201-3

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 6-28
99 as of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to participate in any instruction, evaluation, or other training-related activities involving those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration. I further understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

2. Post-Examination

To the best of my knowledge, I did not divulge to any unauthorized persons any information concerning the NRC licensing examinations administered during the week(s) of 2/7/00. From the date that I entered into this security agreement until the completion of examination administration, I did not participate in any training-related activities involving those applicants who were administered these licensing examinations.

PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE
1. <u>K. KORTH</u>	<u>ANPS / exam review</u>	<u>[Signature]</u>	<u>5-7-99</u>	<u>[Signature]</u>	<u>2-14-00</u>
2. <u>Winston A. Ryley</u>	<u>RCO / Validation</u>	<u>[Signature]</u>	<u>5-7-99</u>	<u>[Signature]</u>	<u>2-21-00</u>
3. <u>Adam J. Scales</u>	<u>ASST OPS SUPERVISOR / Review</u>	<u>[Signature]</u>	<u>5-10-99</u>	<u>[Signature]</u>	<u>02/11/00</u>
4. <u>Jeff Felder</u>	<u>ANPS / Review</u>	<u>[Signature]</u>	<u>5-10-99</u>	<u>[Signature]</u>	<u>2/14/00</u>
5. <u>C.D. LADD</u>	<u>OPS. SUPERV. / REVIEW APPROVE</u>	<u>[Signature]</u>	<u>5/10/99</u>	<u>[Signature]</u>	<u>2/14/00</u>
6. <u>M.H. Allen</u>	<u>ops mgr. / Review exam</u>	<u>[Signature]</u>	<u>5/10/99</u>	<u>[Signature]</u>	<u>2/14/00</u>
7. <u>Gary Hollinger</u>	<u>Asst. Trng. / Operation Trng Oversight</u>	<u>[Signature]</u>	<u>5/12/99</u>	<u>[Signature]</u>	<u>3/7/00</u> ①
8. <u>Jim McNelly</u>	<u>SPEAKOUT</u>	<u>[Signature]</u>	<u>02/04/00</u>	<u>[Signature]</u>	<u>02/06/00</u>
9. <u>Ron Lauder</u>	<u>Training</u>	<u>[Signature]</u>	<u>9-16-99</u>		
10.					

① SIGNATURE (2) ORIGINAL SIGNATURE FROM FAXED COPY