

# **-- ADMINISTRATIVE DOCUMENTS -- ALL IN ONE ADAMS DOCUMENT**

**OCONEE EXAM 2000-301  
50-269, 270, AND 287/2000-301**

**JULY 10 - 14, 18, 19, AND 20, 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
- ✓ ES-201-2 - Exam Outline Quality Checklist

Facility: OCONEEDate of Examination: July 10, 2000Examinations Developed by: Facility / 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)	<i>AT</i>
-120	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	<i>AT</i>
-120	3. Facility contact briefed on security & other requirements (C.2.c)	<i>AT</i>
-120	4. Corporate notification letter sent (C.2.d)	<i>AT</i>
[-90]	[5. Reference material due (C.1.e; C.3.c)]	N/A
-75	6. Integrated examination outline(s) due (C.1.e & f; C.3.d)	<i>AT</i> 4/26
-70	7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)	<i>AT</i> 5/4
-45	8. Proposed examinations, supporting documentation, and reference materials due (C.1.e, f, g & h; C.3.d)	<i>AT</i> 5/30
-30	9. Preliminary license applications due (C.1.i; C.2.g; ES-202)	<i>AT</i> 6/23
-14	10. Final license applications due and assignment sheet prepared (C.1.i; C.2.g; ES-202)	<i>AT</i> 6/23
-14	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	<i>AT</i> 6/13
-14	12. Examinations reviewed with facility licensee (C.1.j; C.2.f & h; C.3.g)	<i>AT</i> 6/23
-7	13. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	<i>AT</i> 6/30
-7	14. Final applications reviewed; assignment sheet updated; waiver letters sent (C.2.g, ES-204)	<i>AT</i> 7/6
-7	15. Proctoring/written exam administration guidelines reviewed with facility licensee and authorization granted to give written exams (if applicable) (C.3.k)	<i>AT</i>
-7	16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	<i>AT</i>

\* 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.

[ ] Applies only to examinations prepared by the NRC.

Task Description	Date Complete
1. Facility written exam comments or graded exams received and verified complete	7/26/00
2. Facility written exam comments reviewed and incorporated and NRC grading completed, if necessary	7/27/00
3. Operating tests graded by NRC examiners	8/4/00
4. NRC Chief examiner review of written exam and operating test grading completed	8/4 operating 7/27 written
5. Responsible supervisor review completed	8/4/00
6. Management (licensing official) review completed	8/4/00
7. License and denial letters mailed	8/8/00
8. Facility notified of results	8/8/00
9. Examination report issued (refer to NRC MC 0610)	8/10/00
10. Reference material returned after final resolution of any appeals	NA

Facility: <u>CCONEE</u>		Date of Exam: <u>5-29-00</u>		Exam Level: RO/SRO			
Item Description				Initial			
				a	b*	c*	
1. Questions and answers technically accurate and applicable to facility				<i>AF</i>	<i>pro</i>	<i>ATA</i>	
2. a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available				<i>AF</i>	<i>pro</i>	<i>ATA</i>	
3. RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401				<i>AF</i>	<i>pro</i>	<i>ATA</i>	
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	<i>AF</i>	<i>pro</i>	<i>ATA</i>	
		<u>5</u>	<u>5</u>				
5. [No (Less than 5 percent) question duplication from the license screening/audit exam (if independently written)]				<i>AF</i>	<i>pro</i>	<i>ATA</i>	
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	<i>AF</i>	<i>pro</i>	<i>ATA</i>
		<u>29</u>	<u>23</u>	<u>48</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	<i>AF</i>	<i>pro</i>	<i>ATA</i>
		<u>41</u>		<u>59</u>			
8. References/handouts provided do not give away answers				<i>AF</i>	<i>pro</i>	<i>ATA</i>	
9. Question distribution meets previously approved examination outline; deviations are justified				<i>AF</i>	<i>pro</i>	<i>ATA</i>	
10. Question psychometric quality and format meet ES, Appendix B, guidelines				<i>AF</i>	<i>pro</i>	<i>ATA</i>	
11. The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet				<i>AF</i>	<i>pro</i>	<i>ATA</i>	
Printed Name / Signature				Date			
a. Author		<u>Bobby AYERS</u>		<u>5/29/00</u>			
b. Facility Reviewer(*)		<u>Paul M. SORVAL</u>		<u>5/30/00</u>			
c. NRC Chief Examiner(*)		<u>George T. HOPPER</u>		<u>6/23/00</u>			
d. NRC Regional Supervisor(*)		<u>REARDO AREDA</u>		<u>6/30/00</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>CCONEE</u>		Date of Exam: <u>5-29-00</u>		Exam Level: <u>RO/SRO</u>		
Item Description				Initial		
				a	b*	c*
1. Questions and answers technically accurate and applicable to facility				<u>HA</u>	<u>pus</u>	<u>HA</u>
2. a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available				<u>HA</u>	<u>pus</u>	<u>HA</u>
3. RO/SRO overlap is no more than <u>75</u> percent, and SRO questions are appropriate per Section D.2.d of ES-401				<u>HA</u>	<u>pus</u>	<u>HA</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 <u>4</u>	Other <u>6</u>	<u>HA</u>
5. [No (Less than 5 percent) question duplication from the license screening/audit exam (if independently written)]				<u>HA</u>	<u>pus</u>	<u>HA</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 <u>30</u>	Modified <u>18</u>	New <u>52</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 <u>45</u>	C/A <u>55</u>	<u>HA</u>
8. References/handouts provided do not give away answers				<u>HA</u>	<u>pus</u>	<u>HA</u>
9. Question distribution meets previously approved examination outline; deviations are justified				<u>HA</u>	<u>pus</u>	<u>HA</u>
10. Question psychometric quality and format meet ES, Appendix B, guidelines				<u>HA</u>	<u>pus</u>	<u>HA</u>
11. The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet				<u>HA</u>	<u>pus</u>	<u>HA</u>
Printed Name / Signature a. Author <u>Bobby Ayers / Bobby Ayers</u> b. Facility Reviewer(*) <u>Paul M. Stovall / Paul M. Stovall</u> c. NRC Chief Examiner(*) <u>George D. Hopper / George D. Hopper</u> d. NRC Regional Supervisor(*) <u>Ken A. Hutto / Ken A. Hutto</u>				Date <u>5/29/00</u> <u>5/30/00</u> <u>6/23/00</u> <u>8/30/00</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.						

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		
1N	F	3										S	
2N	H	3										S	GOOD QUESTION
3N	H	2										S+	WHY 55.43 ? VICE 55.41
4N	F	2	X									E	<del>NEED TO DISCUSS STATUS OF CONTROL SYSTEMS TO ENSURE DISTRACTORS ARE WRONG.</del>
5N	H	3										U	+VE MTC WILL EVENTUALLY RESULT IN HIGH FLUX TRIP. QUESTION CONTAINS SPECIFIC DETERMINER IN STEM. ALSO NOT 55.43 REF.
6N	F	2										S	
7N	H	2				X						E	<del>D IS NOT PLAUSIBLE SINCE NO REASON FOR FAIL OPEN GIVEN IN STEM</del> OK
8B	H	2										S	
9N	F	3										E	A REPLACE ABOVE WITH ≥
10M	FH	3										S	MOD SAT

## Instructions

[Refer to Appendix B for additional information regarding each of the following concepts.]

- Enter the level of knowledge (LOK) of each question as either (F)undamental or (H)igher cognitive level.
- Enter the level of difficulty (LOD) of each question using a 1 - 5 (easy - difficult) rating scale (questions in the 2 - 4 range are acceptable).
- Check the appropriate box if a psychometric flaw is identified:
  - The stem lacks sufficient focus to elicit the correct answer (e.g., unclear intent, more information is needed, or too much needless information).
  - The stem or distractors contain cues (i.e., clues, specific determiners, phrasing, length, etc).
  - The answer choices are a collection of unrelated true/false statements.
  - More than one distractor is not credible.
  - One or more distractors is (are) partially correct (e.g., if the applicant can make unstated assumptions that are not contradicted by stem).
- Check the appropriate box if a job content error is identified:
  - The question is not linked to the job requirements (i.e., the question has a valid K/A but, as written, is not operational in content).
  - The question requires the recall of knowledge that is too specific for the closed reference test mode (i.e., it is not required to be known from memory).
  - The question contains data with an unrealistic level of accuracy or inconsistent units (e.g., panel meter in percent with question in gallons).
  - The question requires reverse logic or application compared to the job requirements.
- Based on the reviewer's judgment, is the question as written (U)nacceptable (requiring repair or replacement), in need of (E)ditorial enhancement, or (S)atisfactory?
- For any "U" ratings, at a minimum, explain how the Appendix B psychometric attributes are not being met.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
11N	H	3										S+	
12*	F	2										S	-----
13B*	H	13		X								E	<del>NOT HIGHER LEVEL. EASILY ELIMINATE A,C DUE TO BAD NOMENCLATURE. TOGGLE SHOULD BE SWITCH IAW PROCEDURE.</del>
14N	F	2					X					U	B,D BOTH CORRECT ANSWERS. REPLACE WORDING TO INDICATE DESIGN INTENT.
15B	H	3										S	
16B*	F	2										S	
17N	H	3										20	<del>EXPLAIN</del>
18N	H	5										5	<del>WHY STRUCTURE QUESTION AMBIGUOUSLY. USE OF CAN AND CANNOT CONFUSING. REWRITE DISTRACTORS</del>
19B	F	2				X						U	A,B,C WRONG DUE TO 3 <sup>RD</sup> BULLET. ESSENTIALLY SAME DISTRACTOR. REWRITE DISTRACTORS
20M	H	3				X						S E	USE DIFFERENT FIGURES FOR DISTRACTORS VICE WRONG POINT ON CORRECT FIGURE.
21M B	F	1 2										S	STEM NOT MODIFIED SIGNIFICANTLY. BASICALLY SAME QUESTION. <i>stem modified</i>
22M	H	2		X								E	INFORMATION GIVEN IN DISTRACTORS C,D RENDERS THEM IMPLAUSIBLE
23B	H	2										S	
24*	H	2										S	-----
25B	H	3		X								U	HANDOUT FOR QUESTION 28 (ENCL 7.6) GIVES ANSWER TO THIS QUESTION! <i>closed 6-25</i>
26M	F	2										S	
27B	H	3	X									S E	<del>QUESTION STEM POSES UNREALISTIC SEQUENCE OF EVENTS</del>
28*M	H	4										S E	WRONG CURVE GIVEN. NEED 0-5 HR CURVE
29B*	H	3										S?	EXPLAIN WHY ACB 7 IS CLOSED IN QUESTION
30N	H	4	X									S E	<del>IS RCS PRESSURE SUFFICIENT TO START RCP? WHY NOT RAISE RCS PRESSURE TO INCREASE DP?</del>

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		
31B	H	3										S	
32 N	H	4	X			X						<del>S</del>	<del>STEM OF QUESTION MAKES NO SENSE - D NP BECAUSE NO TRANSIENTS ARE MENTIONED IN STEM</del>
33 M*	F	2			X							<del>E</del> S	<del>AVOID T/F QUESTIONS</del>
34N	H	3							X			<del>E</del>	<del>LACKS OPERATIONAL SIGNIFICANCE</del>
35N	H	<del>3</del>						X			X	<del>S</del>	<del>LACKS OPERATIONAL VALIDITY AND IS BACKWARD LOGIC QUESTION</del>
36 N	H	3				X	X					<del>U</del> S	<del>NO D CORRECT NOTHING RULED OUT ASSUMING TEST W/LEARN. A ID BECAUSE NO TRANSIENT EXISTS TO SUPPORT STATEMENT.</del>
37M	F	2										S	
38N	H	3										S	
39N	F	3	X									<del>S</del> E	<del>NEED MORE INFO IN BULLETS TO SUPPORT DISTRACTOR ANALYSIS</del>
40M	H	2										<del>S</del> E	<del>EXPLAIN D</del>
41N	F	2				X						E	A,C ID BECAUSE NO PROTECTIVE ACTION DESIGNED TO TERMINATE SOURCES OF AR WOULD START ALTERNATE TRAIN.
42N	F	3										E	A NEEDS MORE DETAIL
43B	F	3										S	<del>SEE COMMENTS</del>
44*	H	4										S	
45B	H	3										S	
46B	<del>F</del>	<del>2</del>										E	NON DISCRIMINATORY 100/100 <i>used NRC Rewrite</i>
47B*	H	2										S	
48B	<del>H</del>	2			X							U	T/F question which did not target k/a listed <i>used NRC question Rewrite</i>
49M	H	3										S	
50N	H	2										S	



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		
51N	F	2		X		X						<del>U</del> E	<del>D, ID BECAUSE STEM STATED MCSVS WERE CLOSED. ALL OTHER SELECTIONS NEED EDITING AS INDICATED.</del>
52N	F	2										S	
53F	F	3										E	SEE COMMENTS
54N	H	3				X						U	A,B ID SINCE KHU #1 LOCKED OUT IN STEM OF QUESTION <i>Removed word lockout</i>
55M	<del>F</del> H	3										E	SEE COMMENTS
56B	H	3										S	Check on RO JTA. Objective exists for RO but appears to be Sro question <i>OK</i>
57N	F	2										S	
58B	F	3										S	-
59N	F	2										S	
60N	F	2										E	CHANGE OPERATOR TO NLO <i>OK</i>
61M*	F	2										S-	DISTRACTOR A, D MODIFIED: STEM VERY SIMILAR TO ORIGINAL
62N	F	2	X			X						E	D, ID TRAVEL STOPS DON'T REGULATE. STEM HAS WINDOW DRESSING
63N	<del>F</del> H	2						X				E	APPLY DEFINITIONS TO MAKE JOB ORIENTED.
64*	F	2										S	
65B	H	3										S	
66M	F	3										S	
67M	F	3										S	<del>WHEN DID SETPOINT CHANGE FROM 10 FT TO 19 FT?</del>
68B	F	2										E	NON-DISCRIMINATORY
69M	F	2										S	REALLY A NEW QUESTION :CHECK KA <i>OK</i>
70N	F	2										E	K/A DOE NOT MATCH LCO/SAFETY LIMITS VICE OMP

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		
71N	F	3						X				E	<del>K/A NOT QUITE MATCH</del>
72N	F	3										S	<del>BASICALLY A NOT QUESTION</del>
73N	F	2										E	DELETE " the" ✓
74N	F	3						X				E	K/A 2.4.4 VICE 2.4.32 STEM DEFINES K/A not the answer ✓
75M	F	3										S	DISTRACTOR ANALYSIS NOT LINED UP CORRECTLY ✓
76M	H	3						X				E	K/A SHOULD BE 00001G2.4.2 VICE G2.4.21 ✓
77N	H	4						X				E	K/A SHOULD BE AK3.04 ✓
78M	H	3						X				E	WHY IS THIS VERIFICATION OF ADEQUATE CORE COOLING ( <del>not 1.11 BETTER</del> ) ✓
79N	H	4						X				E	Discuss lod and attachment material (AK3.03) ✓
80N	H	2									x	E	ADD MANUAL TRIP TO ANSWER TO MAKE IT VALID ✓
81*	H	3										S	(DISTRACTOR ANALYSIS FOR B IS WRONG) K/A OK ✓
82N	H	3										S	K/A OK ✓
83M	H	3										S	K/A OK ✓
84B	H	4										S	K/A OK ✓
85B	H	3										S	K/A OK ✓
86M	H	3										S	<del>POSSIBLE OVERLAP WITH CATEGORY A.4</del> ✓
87N	H	4				X						E	C ID/REINSERT TEMP DATA. NO INDICATION OF 1-RC-66 LEAKAGE IN STEM TO MAKE C PALUSIBLE. K/A IS AN INCREDIBLE STRETCH <del>BETTER 0.002 0.002</del> ✓
88N	H	3						X				E	A,B, POTENTIALLY CORRECT ANSWERS ✓
89*m	H	3										S	K/A OK
90N	H	4										S	K/A ~

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		
91N	H	3										S	K/A OK
92*	H	2										E	SEE RECOMMENDED COMMENTS K/A OK
93N	H	4						X				E	NOT AN OVERFEEDING EVENT; RESPONSE TO A DROPPED ROD K/A 003AK3.04
94N	H	3										S	K/A OK
95N	H	3										S	K/A OK
96N	H	3										S	DISTRACTOR ANALYSIS PAGE IS NOT FOR THIS QUESTION K/A OK
97M	H	3										S	K/A OK
98B	H	3										E	<del>DELETE OPS MANAGER (NOT IN LP)</del> WHAT IS MINIMUM LEVEL OF SIGNATURE AUTHORITY K/A OK
99B	H	3										S	K/A OK
00B*	H	3										S	<del>CHANGE TO</del>
RO ONLY													
76N	H	3										?	Why change bullet to failed high?
77N	H	3										S	
78N	H	2										S	K/A OK
79B	F	2				X						<del>S/E</del>	<del>CHANGE A TO ASYMMETRIC FAULT LIGHT ON</del>
80N	H	4										S	
81N	H	3	X									E	ADD "ASSUME OPERATOR ACTIONS FOR EOPS ARE BEING PERFORMED IN A TIMELY MANNER"
82M	F	2										E	ADD BULET <i>cannot be reduced</i>
83N	H	3										S	
84N	H	3										S	DISCUSS

RO

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		
85B*	H	3										S	
86N	H	2										S	
87B	H	3										S	
88N	HF	3										S	
89N	H	3										E	ADD CORRECTLY IAW PROCEDURE / MOVE D TO A POSITION
90B	H	3										S	EXPLAIN
91N	H	3									X	S-	BACKWARDS LOGIC <i>question significance</i>
92N	H	2				X							B ID ACD OCCUR IMMEDIATELY, B DOES NOT
93B	H	3							X			S-	IS THIS MEMORY ITEM? <i>yes</i>
94B	H	3										S	
95N	H	3										S	
96N	H	2					X					E	A IS CORRECT BECAUSE INDICATIONS ARE THAT FOR LOAD SHED TO OCCUR
97M	F	2										S	
98B*	HF	2										S	MINOR EDIT
99N	HF	2										?	WHY IS ATTACHMENT NECESSARY FOR SUCH A QUESTION. SINCE YOU HAVE DEFINED EVERYTHING, THERE IS NO INTEGRATION OF KNOWLEDGE
100N	H	2										S	CAPITALIZE DIRECT

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		
1N	F	3										S	
2N	H	3										S	GOOD QUESTION
3N	H	2										S+	WHY 55.43 ? VICE 55.41
4N	F	2										S	NEED TO DISCUSS STATUS OF CONTROL SYSTEMS TO ENSURE DISTRACTORS ARE WRONG.
5N	H	3										U	+VE MTC WILL EVENTUALLY RESULT IN HIGH FLUX TRIP. QUESTION CONTAINS SPECIFIC DETERMINER IN STEM. ALSO NOT 55.43 REF.
6N	F	2										S	
7N	H	2										S	
8 B	H	2										S	
9N	F	3										E	A REPLACE ABOVE WITH <sub>2</sub>
10M	FH	3										S	MOD SAT

## Instructions

[Refer to Appendix B for additional information regarding each of the following concepts.]

- Enter the level of knowledge (LOK) of each question as either (F)undamental or (H)igher cognitive level.
- Enter the level of difficulty (LOD) of each question using a 1 - 5 (easy - difficult) rating scale (questions in the 2 - 4 range are acceptable).
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  - The question is not linked to the job requirements (i.e., the question has a valid K/A but, as written, is not operational in content).
  - The question requires the recall of knowledge that is too specific for the closed reference test mode (i.e., it is not required to be known from memory).
  - The question contains data with an unrealistic level of accuracy or inconsistent units (e.g., panel meter in percent with question in gallons).
  - The question requires reverse logic or application compared to the job requirements.
- Based on the reviewer's judgment, is the question as written (U)nacceptable (requiring repair or replacement), in need of (E)ditorial enhancement, or (S)atisfactory?
- For any "U" ratings, at a minimum, explain how the Appendix B psychometric attributes are not being met.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. U/E/S	6. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward		
11N	H	3										S+	
12*	F	2										S	-----
13B*	HF	3		X								E	EASILY ELIMINATE A,C DUE TO BAD NOMENCALTURE. TOGGLE SHOULD BE SWITCH IAW PROCEDURE.
14N	F	2					X					U	B,D BOTH CORRECT ANSWERS. REPLACE WORDING TO INDICATE DESIGN INTENT.
15B	H	3										S	
16B*	F	2										S	
17N	H	3										S	
18N	HF	2										S	
19B	F	2				X						U	A,B,C WRONG DUE TO 3 <sup>RD</sup> BULLET. ESSENTIALLY SAME DISTRACTOR. REWRITE DISTRACTORS
20M	H	3				X						E	USE DIFFERENT FIGURES FOR DISTRACTORS VICE WRONG POINT ON CORRECT FIGURE.
21M B	F	1										S	STEM NOT MODIFIED SIGNIFICANTLY. BASICALLY SAME QUESTION.
22M	H	2		X								E	INFORMATION GIVEN IN DISTRACTORS C,D RENDERS THEM IMPLAUSIBLE
23B	H	2										S	
24*	H	2										S	-----
25B	F	3		X								U	HANDOUT FOR QUESTION 28 (ENCL 7.6) GIVES ANSWER TO THIS QUESTION!
26M	F	2										S	
27B	H	3										S	
28*M	H	4										S	WRONG CURVE GIVEN. NEED 0-5 HR CURVE
29B*	H	3										S	
30N	H	4										S	

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		
31B	H	3										S	
32 N	H	4										S	
33 M*	F	2										S	
34N	H	3							X			E	LACKS OPERATIONAL SIGNIFICANCE
35N	H	3						X			X	U	LACKS OPERATIONAL VALIDITY AND IS BACKWARD LOGIC QUESTION
36 N	H	3				X						E	A ID BECAUSE NO TRANSIENT EXISTS TO SUPPORT STATEMENT.
37M	F	2										S	
38N	H	3										S	
39N	F	3										S	
40M	H	2										S	
41N	F	2				X						E	A,C ID BECAUSE NO PROTECTIVE ACTION DESIGNED TO TERMINATE SOURCES OF AR WOULD START ALTERNATE TRAIN.
42N	F	3										E	A NEEDS MORE DETAIL
43B	F	3										S	SEE COMMENTS
44*	H	4										S	
45B	H	3										S	
46B	F	2										U	NON DISCRIMINATORY 100/100
47B*	H	2										S	
48B	F	2			X							U	T/F question
49M	H	3										S	
50N	H	2										S	

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		
51N	F	2				X						E	ALL OTHER SELECTIONS NEED EDITING AS INDICATED.
52N	F	2										S	
53F	F	3										E	SEE COMMENTS
54N	H	3				X						U	A,B ID SINCE KHU #1 LOCKED OUT IN STEM OF QUESTION
55M	F	3										E	SEE COMMENTS
56B	H	3										S	Check on RO JTA. Objective exists for RO but appears to be Sro question
57N	F	2										S	
58B	F	3										S	
59N	F	2										S	
60N	F	2										E	CHANGE OPERATOR TO NLO
61M*	F	2										S-	DISTRACTOR A ,D MODIFIED: STEM VERY SIMILAR TO ORIGINAL
62N	F	2	X			X						E	D,ID TRAVEL STOPS DON'T REGULATE. STEM HAS WINDOW DRESSING
63N	F	2						X				E	APPLY DEFINITIONS TO MAKE JOB ORIENTED.
64*	F	2										S	
65B	H	3										S	
66M	F	3										S	
67M	F	3										S	
68B	F	2										E	NON-DISCRIMINATORY
69M	F	2										S	REALLY A NEW QUESTION :CHECK KA
70N	F	2										E	K/A DOE NOT MATCH LCO/SAFETY LIMITS VICE OMP



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		
71N	F	3										S	
72N	F	3										S	
73N	F	2										E	DELETE " the"
74N	F	3						X				E	K/A 2.4.4 VICE 2.4.32 STEM DEFINES K/A not the answer
75M	F	3										S	DISTRACTOR ANALYSIS NOT LINED UP CORRECTLY
76M	H	3						X				E	K/A SHOULD BE 00001G2.4.2 VICE G2.4.21
77N	H	4						X				E	K/A SHOULD BE AK3.04
78M	H	3						X				E	WHY IS THIS VERIFICATION OF ADEQUATE CORE COOLING
79N	H	4						X				E	Discuss lod and attachment material (AK3.03)
80N	H	2									x	E	ADD MANUAL TRIP TO ANSWER TO MAKE IT VALID
81*	H	3										S	(DISTRACTOR ANALYSIS FOR B IS WRONG) K/A OK
82N	H	3										S	K/A OK
83M	H	3										S	K/A OK
84B	H	4										S	K/A OK
85B	H	3										S	K/A OK
86M	H	3										S	POSSIBLE OVERLAP WITH CATEGORY A.4
87N	H	4				X						E	C ID/REINSERT TEMP DATA. NO INDICATION OF 1-RC-66 LEAKAGE IN STEM TO MAKE C PALUSIBLE. K/A IS AN INCREDIBLE STRETCH
88N	H	3						X				E	A,B, POTENTIALLY CORRECT ANSWERS
89*m	H	3										S	K/A OK
90N	H	4										S	K/A ~

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		
91N	H	3										S	K/A OK
92*	H	2										E	SEE RECOMMENDED COMMENTS K/A OK
93N	H	4						X				E	NOT AN OVERFEEDING EVENT; RESPONSE TO A DROPPED ROD K/A 003AK3.04
94N	H	3										S	K/A OK
95N	H	3										S	K/A OK
96N	H	3										S	DISTRACTOR ANALYSIS PAGE IS NOT FOR THIS QUESTION K/A OK
97M	H	3										S	K/A OK
98B	H	3										E	WHAT IS MINIMUM LEVEL OF SIGNATURE AUTHORITY K/A OK
99B	H	3										S	K/A OK
00B*	H	3										S	
RO	ONLY												
76N	H	3										S	Why change bullet to failed high?
77N	H	3										S	
78N	H	2										S	K/A OK
79B	F	2				X						S	
80N	H	4										S	
81N	H	3	X									E	ADD "ASSUME OPERATOR ACTIONS FOR EOPS ARE BEING PERFORMED IN A TIMELY MANNER"
82M	F	2				X						E	B,D ID NO CREDIBLE REASON FOR WHY PRESSURE CANNOT BE REDUCED. ADD BULLET
83N	H	3										S	
84N	H	3										S	DISCUSS

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		
85B*	H	3										S	
86N	H	2										S	
87B	H	3										S	
88N	HF	3										S	
89N	H	3										E	ADD CORRECTLY IAW PROCEDURE / MOVE D TO A POSITION
90B	H	3										S	EXPLAIN
91N	H	3										S-	OPERATIONAL SIGNIFICANCE
92N	H	2				X						E	B ID ACD OCCUR IMMEDIATELY, B DOES NOT
93B	H	3							X			S-	IS THIS MEMORY ITEM ?
94B	H	3										S	
95N	H	3										S	
96N	H	2					X					E	A IS CORRECT BECAUSE INDICATIONS ARE THAT FOR LOAD SHED TO OCCUR
97M	F	2										S	
98B*	HF	2										S	MINOR EDIT
99N	HF	2										?	WHY IS ATTACHMENT NECESSARY FOR SUCH A QUESTION. SINCE YOU HAVE DEFINED EVERYTHING, THERE IS NO INTEGRATION OF KNOWLEDGE
100N	H	2										S	CAPITALIZE DIRECT

Facility: <u>Ocone</u>		Date of Examination: <u>7/6-12/00</u>		Operating Test Number: <u>1</u>	
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).	<i>HA</i>	<i>gms</i>	<i>AK</i>	
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	<i>HA</i>	<i>gms</i>	<i>AK</i>	
c.	The operating test shall not duplicate items from the applicants' audit test(s) (see Section D.1.a).	<i>HA</i>	<i>gms</i>	<i>AK</i>	
d.	Overlap with the written examination and between operating test categories is within acceptable limits.	<i>HA</i>	<i>gms</i>	<i>AK</i>	
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	<i>HA</i>	<i>gms</i>	<i>AK</i>	
2. WALK-THROUGH (CATEGORY A & B) CRITERIA			--	--	--
a.	Each JPM includes the following, as applicable: <ul style="list-style-type: none"> <li>initial conditions</li> <li>initiating cues</li> <li>references and tools, including associated procedures</li> <li>validated time limits (average time allowed for completion) and specific designation if deemed to be time critical by the facility licensee</li> <li>specific performance criteria that include: <ul style="list-style-type: none"> <li>detailed expected actions with exact criteria and nomenclature</li> <li>system response and other examiner cues</li> <li>statements describing important observations to be made by the applicant</li> <li>criteria for successful completion of the task</li> <li>identification of critical steps and their associated performance standards</li> <li>restrictions on the sequence of steps, if applicable</li> </ul> </li> </ul>	<i>HA</i>	<i>gms</i>	<i>AK</i>	
b.	The prescribed questions in Category A are predominantly open reference and meet the criteria in Attachment 1 of ES-301.	<i>HA</i>	<i>gms</i>	<i>AK</i>	
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.	<i>HA</i>	<i>gms</i>	<i>AK</i>	
d.	At least 20 percent of the JPMs on each test are new or significantly modified.	<i>HA</i>	<i>gms</i>	<i>AK</i>	
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.	<i>HA</i>	<i>gms</i>	<i>AK</i>	
Printed Name / Signature		Date			
a. Author	<u>Bobby Ayers / Bobby Ayers</u>	<u>5-21-00</u>			
b. Facility Reviewer(*)	<u>Paul M. Stovall / Paul M. Stovall</u>	<u>5-30-00</u>			
c. NRC Chief Examiner (*)	<u>George T. Hopper / George T. Hopper</u>	<u>6/23/00</u>			
d. NRC Supervisor (*)	<u>Robert A. Arillo / Robert A. Arillo</u>	<u>6/30/00</u>			
(*) The facility signature is not applicable for NRC-developed tests; two independent NRC reviews are required.					

Facility: <b>Oconee</b>		Date of Exam: <b>07/10 - 21/2000</b>	Scenario Numbers: <b>1, 2, 3</b>	Operating Test No.: <b>1</b>	
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.		AA	pm	AK
2.	The scenarios consist mostly of related events.		AA	pm	AK
3.	Each event description consists of <ul style="list-style-type: none"> <li>the point in the scenario when it is to be initiated</li> <li>the malfunction(s) that are entered to initiate the event</li> <li>the symptoms/cues that will be visible to the crew</li> <li>the expected operator actions (by shift position)</li> <li>the event termination point (if applicable)</li> </ul>		AA	pm	AK
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.		AA	pm	AK
5.	The events are valid with regard to physics and thermodynamics.		AA	pm	AK
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.		AA	pm	AK
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.		AA	pm	AK
8.	The simulator modeling is not altered.		AA	pm	AK
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.		AA	pm	AK
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.		AA	pm	AK
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).		AA	pm	AK
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).		AA	pm	AK
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.		AA	pm	AK
TARGET QUANTITATIVE ATTRIBUTES (PER SCENARIO; SEE SECTION D.4.D)		Actual Attributes	--	--	--
1.	Total malfunctions (5-8)	10 / 5 / 5	AA	pm	AK
2.	Malfunctions after EOP entry (1-2)	1 / 3 / 3	AA	pm	AK
3.	Abnormal events (2-4)	2 / 2 / 2	AA	pm	AK
4.	Major transients (1-2)	2 / 2 / 1	AA	pm	AK
5.	EOPs entered/requiring substantive actions (1-2)	2 / 2 / 2	AA	pm	AK
6.	EOP contingencies requiring substantive actions (0-2)	1 / 1 / 2	AA	pm	AK
7.	Critical tasks (2-3)	3 / 4 / 5	AA	pm	AK

ES-301

## Transient and Event Checklist

Form ES-301-5

Facility: **Oconee**Date of Exam: **07/10 – 21/2000**

OPERATING TEST NO.:1

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2	3	4
RO	Reactivity	1	4A		3	
	Normal	1	2		6	
	Instrument	2	1, 5		2, 7	
	Component	2	P5, 3, 4, 6, 7, 9		P1, P2, 4, 5	
	Major	1	8, 10		8, 10	
As RO	Reactivity	1	4A			
	Normal	0	2			
	Instrument	1	5			
	Component	1	P5, 4, 6, 9			
	Major	1	8, 10			
SRO-I	Reactivity	0			3	
	Normal	1			6	
	Instrument	1			2, 7	
	Component	1			P1, P2, 4, 5	
	Major	1			8, 10	
As SRO	Reactivity	0	4A			
	Normal	1	2			
	Instrument	1	1, 5			
	Component	1	P5, 3, 4, 6, 7, 9			
	Major	1	8, 10			
SRO-U	Reactivity	0	4A			
	Normal	1	2			
	Instrument	1	1, 5			
	Component	1	P5, 3, 4, 6, 7, 9			
	Major	1	8, 10			

Author:

Bobby Ayers / Ayers / Paul M. Stovall / Paul M. Stovall

Chief Examiner:

George D. Hopper / George D. Hopper

Facility: Oconee

Date of Exam: 07/10 – 21/2000

Competencies												
	SCENARIO				SCENARIO				SCENARIO			
	1 BOP	2	3 BOP	4	1 OATC	2	3 OATC	4	1 SROU	2	3 SRO	4
Understand and Interpret Annunciators and Alarms	1, 2, 3, 7, 8, 10		2, 3, 4, 8, 9, 10		4, 5, 6, 8, 9, 10		1, 5, 6, 7, 8, 10		1, 2, 3, 4, 5, 6, 7, 8, 9, 10		1, 2, 3, 4, 5, 6, 7, 8, 9, 10	
Diagnose Events and Conditions	1, 2, 3, 7, 8, 10		2, 3, 4, 8, 9, 10		4, 5, 6, 8, 9, 10		1, 5, 6, 7, 8, 10		1, 2, 3, 4, 5, 6, 7, 8, 9, 10		1, 2, 3, 4, 5, 6, 7, 8, 9, 10	
Understand Plant and System Response	1, 2, 3, 7, 8, 10		2, 3, 4, 8, 9, 10		4, 5, 6, 8, 9, 10		1, 5, 6, 7, 8, 10		1, 2, 3, 4, 5, 6, 7, 8, 9, 10		1, 2, 3, 4, 5, 6, 7, 8, 9, 10	
Comply With and Use Procedures (1)	1, 2, 3, 7, 8, 10		2, 3, 4, 8, 9, 10		4, 5, 6, 8, 9, 10		1, 5, 6, 7, 8, 10		1, 2, 3, 6, 7, 8, 9, 10		1, 2, 3, 4, 5, 6, 7, 8, 9, 10	
Operate Control Boards (2)	1, 2, 3, 7, 8, 10		2, 3, 4, 8, 9, 10		4, 5, 6, 8, 9, 10		1, 5, 6, 7, 8, 10					
Communicate and Interact With the Crew	1, 2, 3, 7, 8, 10		2, 3, 4, 8, 9, 10		4, 5, 6, 8, 9, 10		1, 5, 6, 7, 8, 10		1, 2, 3, 4, 5, 6, 7, 8, 9, 10		1, 2, 3, 4, 5, 6, 7, 8, 9, 10	
Demonstrate Supervisory Ability (3)									1, 2, 3, 4, 5, 6, 7, 8, 9, 10		1, 2, 3, 4, 5, 6, 7, 8, 9, 10	
Comply With and Use Tech. Specs. (3)									1, 3		1, 8	

## Notes:

- (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:

*Bobby Ayers / Ayers - Paul M. Stovall / Paul M. Stovall*

Chief Examiner:

*George T. Hopper / George T. Hopper*

Facility:		Date of Exam:		Exam Level: RO/SRO		
Item Description		Initials				
		a	b	c		
1.	Answer key changes and question deletions justified and documented	JA	3mo	N/A N/A		
2.	Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	JA	3mo	N/A		
3.	Grading for all borderline cases (80% +/- 2%) reviewed in detail	N/A JA	N/A 3mo	N/A N/A		
4.	All other failing examinations checked to ensure that grades are justified	N/A JA	N/A 3mo	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	JA	3mo	N/A		

  

	Printed Name / Signature	Date
a. Grader	<u>Bobby Ayers / Bobby Ayers</u>	<u>7-21-00</u>
b. Facility Reviewer(*)	<u>Paul M. Stovall / Paul M. Stovall</u>	<u>7-21-00</u>
c. NRC Chief Examiner (*)	<u>George T. Hopper / George T. Hopper</u>	<u>7-27-00</u>
d. NRC Supervisor (*)	<u>[Signature]</u>	<u>8/3/00</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 7-10/7-00 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 7/10-7/17. 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. PRAYERS II	Nuclear Inst. / Exam Lead	<i>Prayers II</i>	1-20-00	<i>Prayers</i>	7/21/00
2. Gabriel WASHBURN	Nuclear Inst.	<i>Gabriel Washburn</i>	1-20-00	<i>Gabriel</i>	7/21/00
3. Keith P. Welch	Simulator Eng.	<i>Keith P. Welch</i>	2-10-2000	<i>Keith P. Welch</i>	7/24/00
4. Elizabeth Austin	Admin Support	<i>Elizabeth Austin</i>	2-15-2000	<i>Elizabeth Austin</i>	07/21/00
5. THOMAS W. RICE	Simulator Support	<i>Thomas W. Rice</i>	3-9-00	<i>Thomas W. Rice</i>	07/31/00
6. Jeff Potbury	Simulator Support	<i>Jeff Potbury</i>	3-16-00	<i>Jeff Potbury</i>	7/21/00
7. TAM VAN VO	Simulator Support	<i>Tam Van Vo</i>	3-16-00	<i>Tam Van Vo</i>	7-21-00
8. Allen G. Collins	Simulator Support	<i>Allen G. Collins</i>	3-16-00	<i>Allen G. Collins</i>	7/21/00
9. John R. Stealy	Instal Tng Supr.	<i>John R. Stealy</i>	4-6-00	<i>John R. Stealy</i>	7-21-00
10. George R. Robinson	Ops Rep	<i>George R. Robinson</i>	4-16-00	<i>George R. Robinson</i>	8-7-2000
11. TRACY ROLAND	NCO	<i>Tracy Roland</i>	4-16-00	<i>Tracy Roland</i>	7-25-00
12. DANIEL H. HALL	NCO	<i>Daniel H. Hall</i>	4-16-00	<i>Daniel H. Hall</i>	7-28-00
13. Mike Stephens	SRD	<i>Mike Stephens</i>	4-16-00	<i>Mike Stephens</i>	7-25-00
14. Paul STOWALL	Microoperator TENG	<i>Paul M. Stowall</i>	4-25-00	<i>Paul M. Stowall</i>	7/21/00
15. FLINT BALDWIN	Nuclear Shift Supervisor	<i>Flint Baldwin</i>	5-11-00	<i>Flint Baldwin</i>	8-7-00
16. R.B. POOLE	NCO	<i>R.B. Poole</i>	5-11-00	<i>R.B. Poole</i>	7-26-00
NOTES: 17. Mike Smith	NCO	<i>Mike Smith</i>	5-12-00	<i>Mike Smith</i>	8-7-00

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 7/10/1-00 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 7/10-7/17. 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. PRAYERS II	Nuclear Inst. / Exam lead	<i>Prayers II</i>	1-20-00	<i>Prayers</i>	7/21/00
2. Gabriel WASHBURN	Nuclear Inst.	<i>Gabriel Washburn</i>	1-20-00	<i>Gabriel</i>	7/21/00
3. Keith P. Wadahal	Simulator Eng.	<i>Keith P. Wadahal</i>	2-10-2000	<i>Keith P. Wadahal</i>	7/24/00
4. Elizabeth A. Tetas	Admin Support	<i>Elizabeth A. Tetas</i>	2-15-2000	<i>Elizabeth A. Tetas</i>	07/21/00
5. THOMAS W. RICE	Simulator Support	<i>Thomas W. Rice</i>	3-9-00	<i>Thomas W. Rice</i>	07/31/00
6. Jeff Pottorayan	Simulator Support	<i>Jeff Pottorayan</i>	3-16-00	<i>Jeff Pottorayan</i>	7/31/00
7. TAM VAN VO	Simulator Support	<i>Tam Van Vo</i>	3-16-00	<i>Tam Van Vo</i>	7-21-00
8. Allen G. Collins	Simulator Support	<i>Allen G. Collins</i>	3-16-00	<i>Allen G. Collins</i>	7/21/00
9. John R. Stealy	Instal Ins Supr.	<i>John R. Stealy</i>	4-6-00	<i>John R. Stealy</i>	7-21-00
10. George R. Robinson	OPS Rep	<i>George R. Robinson</i>	4-16-00	<i>George R. Robinson</i>	8-7-2000
11. TRACY ROLAND	NCO	<i>Tracy Roland</i>	4-16-00	<i>Tracy Roland</i>	7-25-00
12. DANIEL H. HALL	NCO	<i>Daniel H. Hall</i>	4-16-00	<i>Daniel H. Hall</i>	7-28-00
13. Mike Stephens	SRO	<i>Mike Stephens</i>	4-16-00	<i>Mike Stephens</i>	7-25-00
14. Paul STOWALL	Microoperator Trng	<i>Paul M. Stowall</i>	4-25-00	<i>Paul M. Stowall</i>	7/21/00
15. FLINT BALDWIN	Nuclear Shift Supervisor	<i>Flint Baldwin</i>	5-11-00	<i>Flint Baldwin</i>	8-7-00
16. R.B. POOLE	NCO	<i>R.B. Poole</i>	5-11-00	<i>R.B. Poole</i>	7-26-00
17. Mike Smith	NCO	<i>Mike Smith</i>	5-12-00	<i>Mike Smith</i>	8-7-00

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 7/10 7/17 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
18. x. David T. Yonque	SRO Nuc. Shift Super.	<i>[Signature]</i>	7-6-00	<i>[Signature]</i>	8-7-00	
19. 2. Richard L. Gerner	RO Reactor Operator	<i>[Signature]</i>	7-6-00	<i>[Signature]</i>	8-7-00	
20. 8. JAMES M. Byko	NUCLEAR INSTRUCTOR	<i>[Signature]</i>	7-9-00	<i>[Signature]</i>	7/31/00	
21. 4. Tony R. Lee	SRO Nuc. Shift Super.	<i>[Signature]</i>	7-9-00	<i>[Signature]</i>	7/27/00	
22. 8. Ronnie D. Lingle	Shift Ops Mgr	<i>[Signature]</i>	7-11-00	<i>[Signature]</i>	8-1-00	
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NOTES:

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 7/10-7/17 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.

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18.	<u>David T. Yonque</u>	<u>SRO Nuc. Shift Super.</u>	<u>[Signature]</u>	<u>7-6-00</u>	<u>[Signature]</u>	<u>8-7-00</u>	
19.	<u>Richard L. Gerner</u>	<u>RO Reactor Operator</u>	<u>[Signature]</u>	<u>7-6-00</u>	<u>[Signature]</u>	<u>8-7-00</u>	
20.	<u>JAMES M. Byko</u>	<u>NUCLEAR INSTRUCTOR</u>	<u>[Signature]</u>	<u>7-9-00</u>	<u>[Signature]</u>	<u>7/21/00</u>	
21.	<u>Tony R. Lee</u>	<u>SRO Nuc. Shift Super.</u>	<u>[Signature]</u>	<u>7-9-00</u>	<u>[Signature]</u>	<u>7/27/00</u>	
22.	<u>Ronnie D. Lingle</u>	<u>Shift Ops mgr</u>	<u>[Signature]</u>	<u>7-11-00</u>	<u>[Signature]</u>	<u>8-1-00</u>	
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NOTES:

Facility: <u>OCONEE</u>		Date of Examination: <u>7/10-20/00</u>		
Item	Task Description	Initials		
		a	b*	c
W R I T T E N	1. a. Verify that the outline(s) fit(s) the appropriate model per ES-401.	<i>HA</i>	<i>gms</i>	<i>AK</i>
	b. Assess whether the outline was systematically prepared and whether all knowledge and ability categories are appropriately sampled.	<i>HA</i>	<i>gms</i>	<i>AK</i>
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	<i>HA</i>	<i>gms</i>	<i>AK</i>
	d. Assess whether the repetition from previous examination outlines is excessive.	<i>HA</i>	<i>gms</i>	<i>AK</i>
S I M	2. a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, and major transients.	<i>HA</i>	<i>gms</i>	<i>AK</i>
	b. Assess whether there are enough scenario sets (and spares) to test the projected number and mix of applicants in accordance with the expected crew composition and rotation schedule without compromising exam integrity; ensure each applicant can be tested using at least one new or significantly modified scenario, that no scenarios are duplicated from the applicants' audit test(s)*, and scenarios will not be repeated over successive days.	<i>HA</i>	<i>gms</i>	<i>AK</i>
	c. To the extent possible, assess whether the outline(s) conform(s) with the qualitative and quantitative criteria specified on Form ES-301-4 and described in Appendix D.	<i>HA</i>	<i>gms</i>	<i>AK</i>
W /	3. a. Verify that: (1) the outline(s) contain(s) the required number of control room and in-plant tasks, (2) no more than 30% of the test material is repeated from the last NRC examination, (3)* no tasks are duplicated from the applicants' audit test(s), and (4) no more than 80% of any operating test is taken directly from the licensee's exam banks.	<i>HA</i>	<i>gms</i>	<i>AK</i>
	b. Verify that: (1) the tasks are distributed among the safety function groupings as specified in ES-301, (2) one task is conducted in a low-power or shutdown condition, (3) 40% of the tasks require the applicant to implement an alternate path procedure, (4) one in-plant task tests the applicant's response to an emergency or abnormal condition, and (5) the in-plant walk-through requires the applicant to enter the RCA.	<i>HA</i>	<i>gms</i>	<i>AK</i>
	c. Verify that the required administrative topics are covered, with emphasis on performance-based activities.	<i>HA</i>	<i>gms</i>	<i>AK</i>
	d. Determine if there are enough different outlines to test the projected number and mix of applicants and ensure that no items are duplicated on successive days.	<i>HA</i>	<i>gms</i>	<i>AK</i>
	e. Determine if there are enough different outlines to test the projected number and mix of applicants and ensure that no items are duplicated on successive days.	<i>HA</i>	<i>gms</i>	<i>AK</i>
G E N E R A L	4. a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam section.	<i>HA</i>	<i>gms</i>	<i>AK</i>
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	<i>HA</i>	<i>gms</i>	<i>AK</i>
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	<i>HA</i>	<i>gms</i>	<i>AK</i>
	d. Check for duplication and overlap among exam sections.	<i>HA</i>	<i>gms</i>	<i>AK</i>
	e. Check the entire exam for balance of coverage.	<i>HA</i>	<i>gms</i>	<i>AK</i>
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	<i>HA</i>	<i>gms</i>	<i>AK</i>
a. Author	<u>Bobby AYERS</u>		Printed Name / Signature	Date
b. Facility Reviewer(*)	<u>Palm Sovall</u>		<u>Palm Sovall</u>	<u>7-25-00</u>
c. Chief Examiner	<u>George T. Harris</u>		<u>George T. Harris</u>	<u>5-4-00</u>
d. NRC Supervisor	<u>KCD. CHRISTENSEN</u>		<u>KCD. CHRISTENSEN</u>	<u>5/4/00</u>

(\*) Not applicable for NRC-developed examinations.

Facility: <u>CCONEE</u>		Date of Examination: <u>7-10/17-00</u>		
Item	Task Description	Initials		
		a	b*	c
W R I T T E N	1. a. Verify that the outline(s) fit(s) the appropriate model per ES-401.	<i>JA</i>	<i>gms</i>	<i>AT</i>
	b. Assess whether the outline was systematically prepared and whether all knowledge and ability categories are appropriately sampled.	<i>JA</i>	<i>gms</i>	<i>AT</i>
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	<i>JA</i>	<i>gms</i>	<i>AT</i>
	d. Assess whether the repetition from previous examination outlines is excessive.	<i>JA</i>	<i>gms</i>	<i>AT</i>
S I M	2. a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, and major transients.	<i>JA</i>	<i>gms</i>	<i>AT</i>
	b. Assess whether there are enough scenario sets (and spares) to test the projected number and mix of applicants in accordance with the expected crew composition and rotation schedule without compromising exam integrity; ensure each applicant can be tested using at least one new or significantly modified scenario, that no scenarios are duplicated from the applicants' audit test(s)*, and scenarios will not be repeated over successive days.	<i>JA</i>	<i>gms</i>	<i>AT</i>
	c. To the extent possible, assess whether the outline(s) conform(s) with the qualitative and quantitative criteria specified on Form ES-301-4 and described in Appendix D.	<i>JA</i>	<i>gms</i>	<i>AT</i>
W / T	3. a. Verify that: (1) the outline(s) contain(s) the required number of control room and in-plant tasks, (2) no more than 30% of the test material is repeated from the last NRC examination, (3)* no tasks are duplicated from the applicants' audit test(s), and (4) no more than 80% of any operating test is taken directly from the licensee's exam banks.	<i>JA</i>	<i>gms</i>	<i>AT</i>
	b. Verify that: (1) the tasks are distributed among the safety function groupings as specified in ES-301, (2) one task is conducted in a low-power or shutdown condition, (3) 40% of the tasks require the applicant to implement an alternate path procedure, (4) one in-plant task tests the applicant's response to an emergency or abnormal condition, and (5) the in-plant walk-through requires the applicant to enter the RCA.	<i>JA</i>	<i>gms</i>	<i>AT</i>
	c. Verify that the required administrative topics are covered, with emphasis on performance-based activities.	<i>JA</i>	<i>gms</i>	<i>AT</i>
	d. Determine if there are enough different outlines to test the projected number and mix of applicants and ensure that no items are duplicated on successive days.	<i>JA</i>	<i>gms</i>	<i>AT</i>
G E N E R A L	4. a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam section.	<i>JA</i>	<i>gms</i>	<i>AT</i>
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	<i>JA</i>	<i>gms</i>	<i>AT</i>
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	<i>JA</i>	<i>gms</i>	<i>AT</i>
	d. Check for duplication and overlap among exam sections.	<i>JA</i>	<i>gms</i>	<i>AT</i>
	e. Check the entire exam for balance of coverage.	<i>JA</i>	<i>gms</i>	<i>AT</i>
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	<i>JA</i>	<i>gms</i>	<i>AT</i>
a. Author <u>Bobby Myers</u> b. Facility Reviewer(*) <u>Paul M. Savalli</u> c. Chief Examiner <u>George T. Hopp</u> d. NRC Supervisor <u>Ron Arellano</u>		Printed Name / Signature <u>Bobby Myers</u> <u>Paul M. Savalli</u> <u>George T. Hopp</u> <u>Ron Arellano</u>		Date <u>5-21-00</u> <u>5-30-00</u> <u>6/23/00</u> <u>8/10/00</u>

(\*) Not applicable for NRC-developed examinations.

Facility: OconeeScenario No.: 1Op-Test No.: 1

Examiners: \_\_\_\_\_

Operators: LEE (Surrogate SRO)SALYERSNIX RORIELLOFISHER BOP**Objectives:**

The candidates will operate the simulator during all events described in the scenario as if it is actually Oconee Unit 1. During the exam the candidates will demonstrate appropriate licensed operator knowledge and abilities that will ensure safe operation of the facility during all aspects of operation. During the exam the candidates will use the following operating techniques to ensure safe plant operations and ensure health and safety of the general public is maintained at all times: proper procedure usage, communications, conservative decision making, reactivity management, equipment control and manipulation, and team skills.

**Initial Conditions:** Unit 1 75% power - 400 EFPD, Unit 2 100%, Unit 3 100%

**Turnover:**

- Operation at 75% per SOC for system load demand
- "1B" OTSG SGTL = 20 gpd (OP/1106/31 conditions have been evaluated)
- PCB-21 Gen Output Breaker open (low gas alarm occurred last shift – Transmission should add gas this shift).
- 1B CFT pressure low statalarm received at turnover - N2 makeup to 1B CFT required OP/1104/01, CF System, in progress
- GWD Vent header cross-connected – Unit 1 has the GWD header

Event No.	Malf. No.	Event Type*	Event Description
1. Pre-Insert	Override		Block MSLB Circuitry
2. Pre-Insert	Override	C, BOP/All	Under-voltage "27" relay failure for HWP
3. Pre-Insert	Override		1FDW-42 and 44 (FDW Startup Control and Block) (Failed open)
4. Pre-Insert	Override		PCB-21 Open
5. Pre-Insert	Override	N, ALL	1 B CFT pressure low - Initiate N2 makeup to 1B CFT (Pressure increase)

1	MPI091	I, BOP	Failure of RPS Channel "A" pressure transmitter (Failed Low) (SRO: Tech Spec)
2	Override	N, ALL	1B CFT pressure low – N2 makeup
3	MPI350	C, BOP SRO, TS	1B CFT water leak > TS (SRO: Tech Spec LCO-shutdown requirement)
4	MPI320 MCR040	C,OATC	Inability for CRD insertion in automatic during shutdown.
4A		R,OATC	Manual CRD power decrease
5	MSI051	I, OATC	Turbine Header Pressure transmitter fails high (Manual or automatic reactor trip)
6	MCS051	C,OATC	"1B" TBV fail 90% open (During Event #5)
7	Override	C,BOP/ OATC	1MS-26 ("B" TBV Block) failed open (Breaker failure) (During Event #5)
8	MEL080 MSS330	M, ALL	Load Rejection, loss of power (<3 sec. RCP remain in operation. Secondary lost except Pre-Insert #2)(Pre-Insert #4) (CT B.2.2 & B.2.3) TD EFDW Pump fails to start
9	MSS260	C,OATC	"1A" MDEFDWP trip
10		M, ALL	Establish HPI Cooling (CT B.1.6)

\* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor



Facility: Oconee Scenario No.: 3 Op-Test No.: 1

Examiners: SOLVERS Operators: NIX SRO  
RIELLO FISHER RD  
 LEE (surrogate BOP)

**Objectives:** The candidates will operate the simulator during all events described in the scenario as if it is actually Oconee Unit 1. During the exam the candidates will demonstrate appropriate licensed operator knowledge and abilities that will ensure safe operation of the facility during all aspects of operation. During the exam the candidates will use the following operating techniques to ensure safe plant operations and ensure health and safety of the general public is maintained at all times: proper procedure usage, communications, conservative decision making, reactivity management, equipment control and manipulation, and team skills.

**Initial Conditions:**

Unit 1 is at 25% power (EOL), Unit 2 is at 100%, Unit 3 is at 100%

**Turnover:**

- Operation at 25% power following a restart from a turbine/reactor trip due to a loss of Stator Coolant. Holding at 25% as Engineering is evaluating Generator stator parameters.
- OP/1/A/1102/04, Operation at Power, Enclosure 3.1, Power Escalation in progress – holding at step 2.5 (Auxiliaries remain on CT-1) until Engineering evaluation is complete.
- The TD EFDWP will be taken OOS for 8 hours during this shift. WCC will call when the TD should be placed in "Pull to Lock" (Water in the oil - changing oil)
- "1B" OTSG SGTL = 20 gpd (OP/1106/31 conditions have been evaluated)
- PCB-21 Gen Output Breaker open (low gas alarm occurred last shift – Transmission should add gas this shift).
- 1RIA-17 (B MS Line Rad Monitor) OOS
- 1A GWD Tank release in progress per GWR#00-200
- GWD Vent header cross-connected – Unit 1 has the GWD header

Event No.	Malf. No.	Event Type*	Event Description
1. Pre-Insert	Override	C, BOP	Block MSLB Circuitry
2. Pre-insert	MPS140	C,OATC	1 HP-26 fails as is
1	MSS330	TS/SRO	Unit 1 TD EFDW taken OOS
2	Override	I,BOP	1RIA-37 and 38 fails to terminate GWR

3		N, ALL	De-Lithiation with the deborating Demineralizer
4	Override	C,BOP	1HP-14 fails in the "bleed" position (IPE – PIP O-99-05270)
5	Override FDW03	C,OATC	ICS STAR module failure (FDW)
6		R,OATC	Unit/reactor shutdown
7	MPI171, MPI500	I, OATC	RC T-Hot "A" (1) fails LOW (median select with MPI 500) RC T-Hot "A" (2) fails LOW
8	MPS010	M, All	Steam Generator tube leak (OTSG "A") (200 gpm) (CT D.1, D.2, D.3)
9	Override		RIAs fail: 1RIA-16 – Low
10	MSS380	M, All	Main Steam line leak (OTSG "A") (3%) out of Containment (CT B.2.1, B.2.3)

\* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: OconeeScenario No.: 1Op-Test No.: 1Examiners: RIELLO  
SCHYERSOperators: LEE (SURROGATE SRO)  
ANDERSON RO  
COLEMAN BOP**Objectives:**

The candidates will operate the simulator during all events described in the scenario as if it is actually Oconee Unit 1. During the exam the candidates will demonstrate appropriate licensed operator knowledge and abilities that will ensure safe operation of the facility during all aspects of operation. During the exam the candidates will use the following operating techniques to ensure safe plant operations and ensure health and safety of the general public is maintained at all times: proper procedure usage, communications, conservative decision making, reactivity management, equipment control and manipulation, and team skills.

**Initial Conditions:** Unit 1 75% power - 400 EFPD, Unit 2 100%, Unit 3 100%

**Turnover:**

- Operation at 75% per SOC for system load demand
- "1B" OTSG SGTL = 20 gpd (OP/1106/31 conditions have been evaluated)
- PCB-21 Gen Output Breaker open (low gas alarm occurred last shift – Transmission should add gas this shift).
- 1B CFT pressure low statalarm received at turnover - N2 makeup to 1B CFT required OP/1104/01, CF System, in progress
- GWD Vent header cross-connected – Unit 1 has the GWD header

Event No.	Malf. No.	Event Type*	Event Description
1. Pre-Insert	Override		Block MSLB Circuitry
2. Pre-Insert	Override	C, BOP/All	Under-voltage "27" relay failure for HWP
3. Pre-Insert	Override		1FDW-42 and 44 (FDW Startup Control and Block) (Failed open)
4. Pre-Insert	Override		PCB-21 Open
5. Pre-Insert	Override	N, ALL	1 B CFT pressure low - Initiate N2 makeup to 1B CFT (Pressure increase)

1	MPI091	I, BOP	Failure of RPS Channel "A" pressure transmitter (Failed Low) (SRO: Tech Spec)
2	Override	N, ALL	1B CFT pressure low – N2 makeup
3	MPI350	C, BOP SRO, TS	1B CFT water leak > TS (SRO: Tech Spec LCO-shutdown requirement)
4	MPI320 MCR040	C,OATC	Inability for CRD insertion in automatic during shutdown.
4A		R,OATC	Manual CRD power decrease
5	MSI051	I, OATC	Turbine Header Pressure transmitter fails high (Manual or automatic reactor trip)
6	MCS051	C,OATC	"1B" TBV fail 90% open (During Event #5)
7	Override	C,BOP/ OATC	1MS-26 ("B" TBV Block) failed open (Breaker failure) (During Event #5)
8	MEL080 MSS330	M, ALL	Load Rejection, loss of power (<3 sec. RCP remain in operation. Secondary lost except Pre-Insert #2)(Pre-Insert #4) (CT B.2.2 & B.2.3) TD EFDW Pump fails to start
9	MSS260	C,OATC	"1A" MDEFDWP trip
10		M, ALL	Establish HPI Cooling (CT B.1.6)

\* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: Oconee Scenario No.: 3 Op-Test No.: 1

Examiners: RIELLO Operators: ANDERSON SRO  
SALYERS COLEMAN RO  
LEE (surrogate BOP)

**Objectives:** The candidates will operate the simulator during all events described in the scenario as if it is actually Oconee Unit 1. During the exam the candidates will demonstrate appropriate licensed operator knowledge and abilities that will ensure safe operation of the facility during all aspects of operation. During the exam the candidates will use the following operating techniques to ensure safe plant operations and ensure health and safety of the general public is maintained at all times: proper procedure usage, communications, conservative decision making, reactivity management, equipment control and manipulation, and team skills.

**Initial Conditions:**

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**Turnover:**

- Operation at 25% power following a restart from a turbine/reactor trip due to a loss of Stator Coolant. Holding at 25% as Engineering is evaluating Generator stator parameters.
- OP/1/A/1102/04, Operation at Power, Enclosure 3.1, Power Escalation in progress – holding at step 2.5 (Auxiliaries remain on CT-1) until Engineering evaluation is complete.
- The TD EFDWP will be taken OOS for 8 hours during this shift. WCC will call when the TD should be placed in "Pull to Lock" (Water in the oil - changing oil)
- "1B" OTSG SGTL = 20 gpd (OP/1106/31 conditions have been evaluated)
- PCB-21 Gen Output Breaker open (low gas alarm occurred last shift – Transmission should add gas this shift).
- 1RIA-17 (B MS Line Rad Monitor) OOS
- 1A GWD Tank release in progress per GWR#00-200
- GWD Vent header cross-connected – Unit 1 has the GWD header

Event No.	Mal. No.	Event Type*	Event Description
1. Pre-Insert	Override	C, BOP	Block MSLB Circuitry
2. Pre-insert	MPS140	C,OATC	1 HP-26 fails as is
1	MSS330	TS/SRO	Unit 1 TD EFDW taken OOS
2	Override	I,BOP	1RIA-37 and 38 fails to terminate GWR

3		N, ALL	De-Lithiation with the deborating Demineralizer
4	Override	C,BOP	1HP-14 fails in the "bleed" position (IPE – PIP O-99-05270)
5	Override FDW03	C,OATC	ICS STAR module failure (FDW)
6		R,OATC	Unit/reactor shutdown
7	MPI171, MPI500	I, OATC	RC T-Hot "A" (1) fails LOW (median select with MPI 500) RC T-Hot "A" (2) fails LOW
8	MPS010	M, All	Steam Generator tube leak (OTSG "A") (200 gpm) (CT D.1, D.2, D.3)
9	Override		RIAs fail: 1RIA-16 – Low
10	MSS380	M, All	Main Steam line leak (OTSG "A") (3%) out of Containment (CT B.2.1, B.2.3)

\* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: OconeeScenario No.: 1Op-Test No.: 1Examiners: \_\_\_\_\_  
SALYERS  
HOPPEROperators: Lee (surrogate SRO)  
Porter RO  
Bathbone BOP**Objectives:**

The candidates will operate the simulator during all events described in the scenario as if it is actually Oconee Unit 1. During the exam the candidates will demonstrate appropriate licensed operator knowledge and abilities that will ensure safe operation of the facility during all aspects of operation. During the exam the candidates will use the following operating techniques to ensure safe plant operations and ensure health and safety of the general public is maintained at all times: proper procedure usage, communications, conservative decision making, reactivity management, equipment control and manipulation, and team skills.

**Initial Conditions:** Unit 1 75% power - 400 EFPD, Unit 2 100%, Unit 3 100%

**Turnover:**

- Operation at 75% per SOC for system load demand
- "1B" OTSG SGTL = 20 gpd (OP/1106/31 conditions have been evaluated)
- PCB-21 Gen Output Breaker open (low gas alarm occurred last shift – Transmission should add gas this shift).
- 1B CFT pressure low statalarm received at turnover - N2 makeup to 1B CFT required OP/1104/01, CF System, in progress
- GWD Vent header cross-connected – Unit 1 has the GWD header

Event No.	Malf. No.	Event Type*	Event Description
1. Pre-Insert	Override		Block MSLB Circuitry
2. Pre-Insert	Override	C, BOP/All	Under-voltage "27" relay failure for HWP
3. Pre-Insert	Override		1FDW-42 and 44 (FDW Startup Control and Block) (Failed open)
4. Pre-Insert	Override		PCB-21 Open
5. Pre-Insert	Override	N, ALL	1 B CFT pressure low - Initiate N2 makeup to 1B CFT (Pressure increase)

1	MPI091	I, BOP	Failure of RPS Channel "A" pressure transmitter (Failed Low) (SRO: Tech Spec)
2	Override	N, ALL	1B CFT pressure low – N2 makeup
3	MPI350	C, BOP SRO, TS	1B CFT water leak > TS (SRO: Tech Spec LCO-shutdown requirement)
4	MPI320 MCR040	C, OATC	Inability for CRD insertion in automatic during shutdown.
4A		R, OATC	Manual CRD power decrease
5	MSI051	I, OATC	Turbine Header Pressure transmitter fails high (Manual or automatic reactor trip)
6	MCS051	C, OATC	"1B" TBV fail 90% open (During Event #5)
7	Override	C, BOP/ OATC	1MS-26 ("B" TBV Block) failed open (Breaker failure) (During Event #5)
8	MEL080 MSS330	M, ALL	Load Rejection, loss of power (<3 sec. RCP remain in operation. Secondary lost except Pre-Insert #2)(Pre-Insert #4) (CT B.2.2 & B.2.3) TD EFDW Pump fails to start
9	MSS260	C, OATC	"1A" MDEFDWP trip
10		M, ALL	Establish HPI Cooling (CT B.1.6)

\* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor



Facility: OconeeScenario No.: 3Op-Test No.: 1Examiners: HOPPER  
SALYERSOperators: RATHBONE RO  
PORTER ROP  
Lee (Surrogate SRO)

**Objectives:** The candidates will operate the simulator during all events described in the scenario as if it is actually Oconee Unit 1. During the exam the candidates will demonstrate appropriate licensed operator knowledge and abilities that will ensure safe operation of the facility during all aspects of operation. During the exam the candidates will use the following operating techniques to ensure safe plant operations and ensure health and safety of the general public is maintained at all times: proper procedure usage, communications, conservative decision making, reactivity management, equipment control and manipulation, and team skills.

**Initial Conditions:**

Unit 1 is at 25% power (EOL), Unit 2 is at 100%, Unit 3 is at 100%

**Turnover:**

- Operation at 25% power following a restart from a turbine/reactor trip due to a loss of Stator Coolant. Holding at 25% as Engineering is evaluating Generator stator parameters.
- OP/1/A/1102/04, Operation at Power, Enclosure 3.1, Power Escalation in progress – holding at step 2.5 (Auxiliaries remain on CT-1) until Engineering evaluation is complete.
- The TD EFDWP will be taken OOS for 8 hours during this shift. WCC will call when the TD should be placed in "Pull to Lock" (Water in the oil - changing oil)
- "1B" OTSG SGTL = 20 gpd (OP/1106/31 conditions have been evaluated)
- PCB-21 Gen Output Breaker open (low gas alarm occurred last shift – Transmission should add gas this shift).
- 1RIA-17 (B MS Line Rad Monitor) OOS
- 1A GWD Tank release in progress per GWR#00-200
- GWD Vent header cross-connected – Unit 1 has the GWD header

Event No.	Malf. No.	Event Type*	Event Description
1. Pre-Insert	Override	C, BOP	Block MSLB Circuitry
2. Pre-insert	MPS140	C,OATC	1 HP-26 fails as is
1	MSS330	TS/SRO	Unit 1 TD EFDW taken OOS
2	Override	I,BOP	1RIA-37 and 38 fails to terminate GWR

3		N, ALL	De-Lithiation with the deborating Demineralizer
4	Override	C,BOP	1HP-14 fails in the "bleed" position (IPE – PIP O-99-05270)
5	Override FDW03	C,OATC	ICS STAR module failure (FDW)
6		R,OATC	Unit/reactor shutdown
7	MPI171, MPI500	I, OATC	RC T-Hot "A" (1) fails LOW (median select with MPI 500) RC T-Hot "A" (2) fails LOW
8	MPS010	M, All	Steam Generator tube leak (OTSG "A") (200 gpm) (CT D.1, D.2, D.3)
9	Override		RIAs fail: 1RIA-16 – Low
10	MSS380	M, All	Main Steam line leak (OTSG "A") (3%) out of Containment (CT B.2.1, B.2.3)

\* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: OconeeScenario No.: 1Op-Test No.: 1Examiners: HOPPER  
ALLENOperators: WARD SRO  
Hildebran RO  
(Surrogate) BOP  
T. Lee**Objectives:**

The candidates will operate the simulator during all events described in the scenario as if it is actually Oconee Unit 1. During the exam the candidates will demonstrate appropriate licensed operator knowledge and abilities that will ensure safe operation of the facility during all aspects of operation. During the exam the candidates will use the following operating techniques to ensure safe plant operations and ensure health and safety of the general public is maintained at all times: proper procedure usage, communications, conservative decision making, reactivity management, equipment control and manipulation, and team skills.

**Initial Conditions:** Unit 1 75% power - 400 EFPD, Unit 2 100%, Unit 3 100%

**Turnover:**

- Operation at 75% per SOC for system load demand
- "1B" OTSG SGTL = 20 gpd (OP/1106/31 conditions have been evaluated)
- PCB-21 Gen Output Breaker open (low gas alarm occurred last shift – Transmission should add gas this shift).
- 1B CFT pressure low statalarm received at turnover - N2 makeup to 1B CFT required OP/1104/01, CF System, in progress
- GWD Vent header cross-connected – Unit 1 has the GWD header

Event No.	Malf. No.	Event Type*	Event Description
1. Pre-Insert	Override		Block MSLB Circuitry
2. Pre-Insert	Override	C, BOP/All	Under-voltage "27" relay failure for HWP
3. Pre-Insert	Override		1FDW-42 and 44 (FDW Startup Control and Block) (Failed open)
4. Pre-Insert	Override		PCB-21 Open
5. Pre-Insert	Override	N, ALL	1 B CFT pressure low - Initiate N2 makeup to 1B CFT (Pressure increase)

1	MPI091	I, BOP	Failure of RPS Channel "A" pressure transmitter (Failed Low) (SRO: Tech Spec)
2	Override	N, ALL	1B CFT pressure low – N2 makeup
3	MPI350	C, BOP SRO, TS	1B CFT water leak > TS (SRO: Tech Spec LCO-shutdown requirement)
4	MPI320 MCR040	C, OATC	Inability for CRD insertion in automatic during shutdown.
4A		R, OATC	Manual CRD power decrease
5	MSI051	I, OATC	Turbine Header Pressure transmitter fails high (Manual or automatic reactor trip)
6	MCS051	C, OATC	"1B" TBV fail 90% open (During Event #5)
7	Override	C, BOP/ OATC	1MS-26 ("B" TBV Block) failed open (Breaker failure) (During Event #5)
8	MEL080 MSS330	M, ALL	Load Rejection, loss of power (<3 sec. RCP remain in operation. Secondary lost except Pre-Insert #2)(Pre-Insert #4) (CT B.2.2 & B.2.3) TD EFDW Pump fails to start
9	MSS260	C, OATC	"1A" MDEFDWP trip
10		M, ALL	Establish HPI Cooling (CT B.1.6)

\* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: OconeeScenario No.: 1Op-Test No.: 1Examiners: Hopper  
Salyers  
AielloOperators: LeCROY SRO  
Loskoski OATC  
Lamance BOP**Objectives:**

The candidates will operate the simulator during all events described in the scenario as if it is actually Oconee Unit 1. During the exam the candidates will demonstrate appropriate licensed operator knowledge and abilities that will ensure safe operation of the facility during all aspects of operation. During the exam the candidates will use the following operating techniques to ensure safe plant operations and ensure health and safety of the general public is maintained at all times: proper procedure usage, communications, conservative decision making, reactivity management, equipment control and manipulation, and team skills.

**Initial Conditions:** Unit 1 75% power - 400 EFPD, Unit 2 100%, Unit 3 100%

**Turnover:**

- Operation at 75% per SOC for system load demand
- "1B" OTSG SGTL = 20 gpd (OP/1106/31 conditions have been evaluated)
- PCB-21 Gen Output Breaker open (low gas alarm occurred last shift – Transmission should add gas this shift).
- 1B CFT pressure low statalarm received at turnover - N2 makeup to 1B CFT required OP/1104/01, CF System, in progress
- GWD Vent header cross-connected – Unit 1 has the GWD header

Event No.	Malf. No.	Event Type*	Event Description
1. Pre-Insert	Override		Block MSLB Circuitry
2. Pre-Insert	Override	C, BOP/All	Under-voltage "27" relay failure for HWP
3. Pre-Insert	Override		1FDW-42 and 44 (FDW Startup Control and Block) (Failed open)
4. Pre-Insert	Override		PCB-21 Open
5. Pre-Insert	Override	N, ALL	1 B CFT pressure low - Initiate N2 makeup to 1B CFT (Pressure increase)

1	MPI091	I, BOP	Failure of RPS Channel "A" pressure transmitter (Failed Low) (SRO: Tech Spec)
2	Override	N, ALL	1B CFT pressure low – N2 makeup
3	MPI350	C, BOP SRO, TS	1B CFT water leak > TS (SRO: Tech Spec LCO-shutdown requirement)
4	MPI320 MCR040	C,OATC	Inability for CRD insertion in automatic during shutdown.
4A		R,OATC	Manual CRD power decrease
5	MSI051	I, OATC	Turbine Header Pressure transmitter fails high (Manual or automatic reactor trip)
6	MCS051	C,OATC	"1B" TBV fail 90% open (During Event #5)
7	Override	C,BOP/ OATC	1MS-26 ("B" TBV Block) failed open (Breaker failure) (During Event #5)
8	MEL080 MSS330	M, ALL	Load Rejection, loss of power (<3 sec. RCP remain in operation. Secondary lost except Pre-Insert #2)(Pre-Insert #4) (CT B.2.2 & B.2.3) TD EFDW Pump fails to start
9	MSS260	C,OATC	"1A" MDEFDWP trip
10		M, ALL	Establish HPI Cooling (CT B.1.6)

\* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

Facility: OconeeScenario No.: 3Op-Test No.: 1Examiners: HOPPER  
ABELLO  
SALYERSOperators: Le CROY SRO  
LAWANCE RO  
Leskoski BOP

**Objectives:** The candidates will operate the simulator during all events described in the scenario as if it is actually Oconee Unit 1. During the exam the candidates will demonstrate appropriate licensed operator knowledge and abilities that will ensure safe operation of the facility during all aspects of operation. During the exam the candidates will use the following operating techniques to ensure safe plant operations and ensure health and safety of the general public is maintained at all times: proper procedure usage, communications, conservative decision making, reactivity management, equipment control and manipulation, and team skills.

**Initial Conditions:**

Unit 1 is at 25% power (EOL), Unit 2 is at 100%, Unit 3 is at 100%

**Turnover:**

- Operation at 25% power following a restart from a turbine/reactor trip due to a loss of Stator Coolant. Holding at 25% as Engineering is evaluating Generator stator parameters.
- OP/1/A/1102/04, Operation at Power, Enclosure 3.1, Power Escalation in progress – holding at step 2.5 (Auxiliaries remain on CT-1) until Engineering evaluation is complete.
- The TD EFDWP will be taken OOS for 8 hours during this shift. WCC will call when the TD should be placed in "Pull to Lock" (Water in the oil - changing oil)
- "1B" OTSG SGTL = 20 gpd (OP/1106/31 conditions have been evaluated)
- PCB-21 Gen Output Breaker open (low gas alarm occurred last shift – Transmission should add gas this shift).
- 1RIA-17 (B MS Line Rad Monitor) OOS
- 1A GWD Tank release in progress per GWR#00-200
- GWD Vent header cross-connected – Unit 1 has the GWD header

Event No.	Malf. No.	Event Type*	Event Description
1. Pre-Insert	Override	C, BOP	Block MSLB Circuitry
2. Pre-insert	MPS140	C,OATC	1 HP-26 fails as is
1	MSS330	TS/SRO	Unit 1 TD EFDW taken OOS
2	Override	I,BOP	1RIA-37 and 38 fails to terminate GWR

3		N, ALL	De-Lithiation with the deborating Demineralizer
4	Override	C,BOP	1HP-14 fails in the "bleed" position (IPE – PIP O-99-05270)
5	Override FDW03	C,OATC	ICS STAR module failure (FDW)
6		R,OATC	Unit/reactor shutdown
7	MPI171, MPI500	I, OATC	RC T-Hot "A" (1) fails LOW (median select with MPI 500) RC T-Hot "A" (2) fails LOW
8	MPS010	M, All	Steam Generator tube leak (OTSG "A") (200 gpm) (CT D.1, D.2, D.3)
9	Override		RIAs fail: 1RIA-16 – Low
10	MSS380	M, All	Main Steam line leak (OTSG "A") (3%) out of Containment (CT B.2.1, B.2.3)

\* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor