Facility: CALVERT CLIFFS Date of Examination: 7/11-18/2

Examinations 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)	
-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.l; C.2.g; ES-202)	
-14	10. Final license applications due and assignment sheet prepared (C.1.l; 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)	

* 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.

Facility: Date of Examination:

Item	Task Description	Initials a	Initials b*	Initials c#
1. WRITTEN	a. Verify that the outline(s) fit(s) the appropriate model per ES-401.	MEW		✓
	b. Assess whether the outline was systematically and randomly prepared in accordance with Section D.1 of ES-401 and whether all K/A categories are appropriately sampled.	MEW		✓
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	MEW		✓
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	MEW		✓
2. SIM	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.			✓
	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.			✓
	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.			✓
3. W/T	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.	MEW		✓
	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.	MEW		✓
	c. Verify that the required administrative topics are covered, with emphasis on performance-based activities.	MEW		✓
	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.	MEW		✓
4. GENERAL	a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam section.	MEW		✓
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	MEW		✓
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	MEW		✓
	d. Check for duplication and overlap among exam sections.	MEW		✓
	e. Check the entire exam for balance of coverage.	MEW		✓
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	MEW		✓

	Printed Name / Signature	Date
a. Author	Michael Wasem	3/30/02
b. Facility Reviewer (*)	William Birney	4-18-02
c. NRC Chief Examiner (#)	J. DANNANDO	5/20/02
d. NRC Supervisor	Richard J. Conte	5/20/01

not ES 301-5 Clocks like 301-4 Pick have been done

Note: * Not applicable for NRC-developed examinations.
Independent NRC reviewer initial items in Column "c;" chief examiner concurrence required.

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 12-19 July 2002 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 12-18 July, 2002. 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. SCOTT ATWATER	OPERATIONS INSTRUCTOR	Scott Atwater	12/18/01	Scott Atwater	7/19/02	
2. Mike Wasem	Exam Developer/Writer	[illegible]	12/18/01	[illegible]	7/18/02	
3. Jim Kollom	OPs Instructor	[illegible]	2/14/2	[illegible]	7/19/02	
4. EDMUND A. CHRZANOWSKI	SIMULATOR SUPPORT/SIM	[illegible]	2/25/02	[illegible]	7/22/02	
5. William Gunter	CRO - Exam Validation	[illegible]	3/1/02	[illegible]	7-19-02	
6. W.P. Barney	S-RTU - FAC REP	[illegible]	3-7-02	[illegible]	7/19/02	
7. Denise A. Nelson	SR Admin Asst-RTU-admin	Denise A. Nelson	3-22-02	Denise Nelson	7/18/02	
8. Michelle Draxton	TRNG Specialist	Michelle L. Draxton	4-3-02	Michelle Draxton	7/24/02	
9. Ashley Bless	System Support Tech	[illegible]	4-11-02	[illegible]	7/19/02	
10. Gregg Buchmann	Fin Team Operator	[illegible]	4-12-02	[illegible]	7/24/02	
11. Robert V. Pace	Supervisor-WCU	[illegible]	4-23-02	[illegible]	7-19-02	
12. James Barton	CRO / Jim	[illegible]	4-23-02	[illegible]	7/22/2	
13. STEVEN J. BARGER	CRO	[illegible]	4-29-02	[illegible]	7-22-02*	
14. Denise M. Terracciano	Sr. Admin - ITU	Denise M. Terracciano	5-7-02	Denise Terracciano	7/19/2	
15. KERRY HUMMER	CRO IOPS INSTRUCTOR	[illegible]	5/13/2	[illegible]		

NOTES: * Name has now changed to Denise Tarance as of June 13, 2002 Denise Tarance 7-22-02

2002 JUL 26 AM 10:33

RECEIVED REGION I

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 12-19 July, 2002 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 12-18 July, 2002. 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. Erwin D. Denoyer	[illegible]	PROJECT MANAGER, PES	5/24/02	[illegible]	7/19/02	
2. Kent Mills	GS-NRO	[illegible]	7/8/02	[illegible]	7/19/02	
3. Robert Howarth	SSWG CRO	Robert Howarth	7-8-02	R. Howarth	7-22-02	
4. David Holm	OPERATIONS MANAGER	[illegible]	7-10-02	[illegible]	7/23/02	
5. Keith Brown	SRO INSTRUCTOR/PROCTOR	[illegible]	7-10-2	[illegible]	7-19-2	
6. Tim Riti	SRO Instructor/Proctor	[illegible]	7/10/02	[illegible]	7/18/02	
7. John Hornick	SUP-ITU/FAC REP EXAM WEEK	[illegible]	7/10/02	[illegible]	7/18/02	
8. Mark V. Seckens	GS-OT	[illegible]	7-11-02	[illegible]	7-19-02	
9. Robert W. Scott	SRO INSTRUCTOR/PROCTOR	[illegible]	7-12-02	[illegible]	7/19/02	
10. J.W. Holmes	SRO INSTRUCTOR/PROCTOR	[illegible]	7-12-02	[illegible]	7/19/02	
11. C.S. Joy	SRO INSTRUCTOR/PROCTOR	[illegible]	7-15-02	[illegible]	7/19/02	
12.						
13.						
14.						
15.						

NOTES:

Facility: Date of Examination: Operating Test Number:

	1. GENERAL CRITERIA*	Initials a	Initials b*	Initials 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).			
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.			
c.	The operating test shall not duplicate items from the applicants' audit test(s)(see Section D.1.a).			
d.	Overlap with the written examination and between operating test categories is within acceptable limits.			
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.			
	2. WALK-THROUGH (CATEGORY A & B) CRITERIA	--	--	--
a.	Each JPM includes the following, as applicable: · initial conditions · initiating cues · references and tools, including associated procedures · reasonable and 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: - 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			
b.	The prescripted questions in Category A are predominantly open reference and meet the criteria in Attachment 1 of ES-301.			
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.			
d.	At least 20 percent of the JPMs on each test are new or significantly modified.			
	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.			

	Printed Name / Signature	Date
a. Author	James C. Kellum	5/23/02
b. Facility Reviewer(*)	WILLIAM P. BIRNEY	5-23-02
c. NRC Chief Examiner (#)	J. D'ANTONIO	6/12/02
d. NRC Supervisor	R.J. Conte	7/11/02

NOTE: * The facility signature is not applicable for NRC-developed tests.
Independent NRC reviewer initial items in Column "c;" chief examiner concurrence required.

*Scenarios Only

Facility: Date of Examination: Operating Test Number:

	1. GENERAL CRITERIA	Initials a	Initials b*	Initials 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).	MLW		✓
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	MLW		✓
c.	The operating test shall not duplicate items from the applicants' audit test(s)(see Section D.1.a).	MLW		✓
d.	Overlap with the written examination and between operating test categories is within acceptable limits.	MLW		✓
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	MLW		✓
	2. WALK-THROUGH (CATEGORY A & B) CRITERIA	–	–	–
a.	Each JPM includes the following, as applicable: · initial conditions · initiating cues · references and tools, including associated procedures · reasonable and 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: - 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	MLW		✓
b.	The prescripted questions in Category A are predominantly open reference and meet the criteria in Attachment 1 of ES-301.	MLW		✓
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.	MLW		✓
d.	At least 20 percent of the JPMs on each test are new or significantly modified.	MLW		✓
	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.	N/A	* N/A	Previously

	Printed Name / Signature	Date
a. Author	Michael L. Wasem / MLWasem	5/31/02
b. Facility Reviewer(*)	William P. Birney	5-31-02
c. NRC Chief Examiner (#)	J. D'Antonio / [illegible]	6/12/02
d. NRC Supervisor	R.J. Conte / [illegible]	7/11/02

NOTE: * The facility signature is not applicable for NRC-developed tests.
Independent NRC reviewer initial items in Column "c;" chief examiner concurrence required.

* previously submitted

Facility: CCNPP Date of Exam: 7/15/02 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.			
2. The scenarios consist mostly of related events.			
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)			
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.			
5. The events are valid with regard to physics and thermodynamics.			
6. Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.			
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.	N/A	N/A	–
8. The simulator modeling is not altered.			
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.			
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.			
11. All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).			
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).			
13. The level of difficulty is appropriate to support licensing decisions for each crew position.			

TARGET QUANTITATIVE ATTRIBUTES (PER SCENARIO; SEE SECTION D.4.D)	Actual Attributes	–	–	–
1. Total malfunctions (5-8)	9 / 9 / 9			
2. Malfunctions after EOP entry (1-2)	3 / 2 / 3			
3. Abnormal events (2-4)	2 / 2 / 2			
4. Major transients (1-2)	2 / 2 / 2			
5. EOPs entered/requiring substantive actions (1-2)	1 / 1 / 1			
6. EOP contingencies requiring substantive actions (0-2)	1 / 0 / 1			
7. Critical tasks (2-3)	2 / 2 / 3			

* Scenario #1 is the spare functional

Facility: CCNPP Date of Exam: 7/15/02 Scenario Numbers: 4* / / Operating Test No.:

QUALITATIVE ATTRIBUTES	Initials a	Initials b*	Initials 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.			
2. The scenarios consist mostly of related events.			
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)			
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.			
5. The events are valid with regard to physics and thermodynamics.			
6. Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.			
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.	N/A	N/A	N/A
8. The simulator modeling is not altered.			
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.			
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.			
11. All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).			
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).			
13. The level of difficulty is appropriate to support licensing decisions for each crew position.			

TARGET QUANTITATIVE ATTRIBUTES (PER SCENARIO; SEE SECTION D.4.D)	Actual Attributes	–	–	–
1. Total malfunctions (5-8)	8 / /			
2. Malfunctions after EOP entry (1-2)	3 / /			
3. Abnormal events (2-4)	2 / /			
4. Major transients (1-2)	1 / /			
5. EOPs entered/requiring substantive actions (1-2)	1 / /			
6. EOP contingencies requiring substantive actions (0-2)	0 / /			
7. Critical tasks (2-3)	2 / /			

* Scenario #4 is the spare optimal

OPERATING TEST NO.:

Applicant Type	Evolution Type	Minimum Number	Scenario Number 1	2	3	4
RO RO/BOP	Reactivity	1	5 / –	5 / –	4 / –	1 / –
	Normal	1	– / 5	– / 5	– / 4	– / 1
	Instrument / Component	4	2,3 / 1,4	3,4 / 1,2	1,2,4 / 3,4	3,4 / 2,5
	Major	1	6,7 / 6,7	6,7 / 6,7	5,6 / 5,6	6 / 6
As RO	Reactivity	1	5	5	4	1
	Normal	0	–	–	–	–
	Instrument / Component	2	2,3	3,4	1,2,4	3,4
	Major	1	6,7	6,7	5,6	6
SRO-I						
	Reactivity	0	–	–	–	–
As SRO	Normal	1	5	5	4	1
	Instrument / Component	2	1-4	1-4	1-4	2-5
	Major	1	6,7	6,7	5,6	6
SRO-U	Reactivity	0	–	–	–	–
	Normal	1	5	5	4	1
	Instrument / Component	2	1-4	1-4	1-4	2-5
	Major	1	6,7	6,7	5,6	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.
(3) Whenever practical, both instrument and component malfunctions should be included; only those that require verifiable actions that provide insight to the applicant's competence count toward the minimum requirement.

Author: _____

NRC Reviewer: _____

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

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: _____

NRC Reviewer: _____

Facility: CCNPP Units 1+2 Date of Exam: 12 July, 2002 Exam Level: RO/SRO

	Item Description	Initial a	Initial b*	Initial c#
1.	Questions and answers technically accurate and applicable to facility	MLW		✓
2.	a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available	MLW		✓
3.	RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401	MLW		✓
4.	Question selection and duplication from the last two NRC licensing exams appears consistent with a systematic sampling process			✓
5.	Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: __ the audit exam was systematically and randomly developed; or __ the audit exam was completed before the license exam was started; or ✓ the examinations were developed independently; or __ the licensee certifies that there is no duplication; or __ other (explain)	MLW		✓
6.	Bank use meets limits (no more than 75 percent from the bank at least 10 percent new, and the rest modified); enter the actual question distribution at right — Bank: 56 (54); Modified: 17 (18); New: 27 (28)	MLW		✓
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: 47 (48); C/A: 53 (52)	MLW		✓
8.	References/handouts provided do not give away answers	MLW		✓
9.	Question content conforms with specific K/A statements in the previously approved examination outline and is appropriate for the Tier to which they are assigned; deviations are justified	MLW		✓
10.	Question psychometric quality and format meet ES, Appendix B, guidelines	MLW		✓
11.	The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet	MLW		✓

	Printed Name / Signature	Date
a. Author	Michael L. Wasem	5/31/02
b. Facility Reviewer (*)	WILLIAM P. BIRNEY	5-31-02
c. NRC Chief Examiner (#)	J. YANSPAN	7/8/02
d. NRC Regional Supervisor	R.J. Conte	7/11/02

Note: * The facility reviewer's initials/signature are not applicable for NRC-developed examinations.
Independent NRC reviewer initial items in Column "c;" chief examiner concurrence required.

Written Examination Quality Checklist

Form ES-401-7

Facility: Calvert Cliffs Units 1 and 2 Date of Exam: July 12, 2002 Exam Level: RO/SRO

	Item Description	Initial a	Initial b*	Initial c#
1.	Questions and answers technically accurate and applicable to facility	mew		
2.	a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available	mew		
3.	RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401	mew		
4.	Question selection and duplication from the last two NRC licensing exams appears consistent with a systematic sampling process			
5.	Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: __ the audit exam was systematically and randomly developed; or __ the audit exam was completed before the license exam was started; or ✓ the examinations were developed independently; or __ the licensee certifies that there is no duplication; or __ other (explain)	mew		
6.	Bank use meets limits (no more than 75 percent from the bank at least 10 percent new, and the rest modified); enter the actual question distribution at right Bank: 56 52; Modified: 21 23; New: 23 25	mew		
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: 45 44; C/A: 55 56	mew		
8.	References/handouts provided do not give away answers	mew		
9.	Question content conforms with specific K/A statements in the previously approved examination outline and is appropriate for the Tier to which they are assigned; deviations are justified	mew		
10.	Question psychometric quality and format meet ES, Appendix B, guidelines	mew		
11.	The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet	mew		

	Printed Name / Signature	Date
a. Author	Michael L. Wasem / Michael L. Wasem	5/21/02
b. Facility Reviewer (*)	William P. Birney / [signature]	5-31-02
c. NRC Chief Examiner (#)	J. Jaimond / [signature]	7/8/02
d. NRC Regional Supervisor	R.J. Caté / [signature]	7/11/02

Note: * The facility reviewer's initials/signature are not applicable for NRC-developed examinations.
Independent NRC reviewer initial items in Column "c;" chief examiner concurrence required.

Facility:	Date of Exam:	Exam Level: RO/SRO

	Item Description	Initials a	Initials b	Initials c
1.	Clean answer sheets copied before grading	MW	RWS	JMO
2.	Answer key changes and question deletions justified and documented	MW	RWS	N/A
3.	Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	MW	RWS	JMO
4.	Grading for all borderline cases (80% +/- 2%) reviewed in detail	MW	RWS	JMO
5.	All other failing examinations checked to ensure that grades are justified	N/A	N/A	N/A
6.	Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	MW	RWS	JMO

	Printed Name / Signature	Date
a. Grader	Michael L. Wakem / M Wakem	2/18/02
b. Facility Reviewer(*)	Robert W. Scott / Robert W Scott	2/18/02
c. NRC Chief Examiner (*)	JMO'Donnell / J.M. O'Donnell	2/28/02
d. NRC Supervisor (*)	R.J. Conte / RJ Conte	2/31/02

(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.