

Chief: M MURPHY

Facility/Task: RB EX

Task Start Date: 10/30/00

ITEM DESCRIPTION	DUE DATE	INIT	DATE
0 Exam/Inspection Schedule Agreement (C.1.a;C.2.a&b)	May 3, 2000	JLP	4/4/2000
1 NRC Staff & Fac. Contact Assigned (C.1.c;C.2.e)	May 3, 2000	JLP	4/4/2000
2 Facility contact briefed on security & other issues (C.2.c)	May 3, 2000	JLP	4/4/2000
3 Corp. Notification Letter Sent (C.2.d) (Exams only)	May 3, 2000	<i>JLP</i>	5/4/00
3a Inspection Announcement Letter Sent (PIR & LORT if req'd)	Sep 15, 2000	N/A	N/A
4 Task Expectations, Issues, & Standards Discussed w/ BC	Aug 1, 2000	<i>JLP</i>	8/1/00
5# [Reference Material Due (C.1.d;C.3.c)]	Jul 2, 2000	N/A	N/A
6# Integrated Exam Outlines Due (C.1.d&e;C.3.d)	Jul 2, 2000	<i>JLP</i>	7/3/00
7# Outlines reviewed by NRC & Feedback Sent (c.2.h;C.3.e)	Jul 16, 2000	<i>JLP</i>	7/16/00
8# Preliminary Applications Due (C.1.j;C.2.g;ES202)	Sep 30, 2000	<i>JLP</i>	9/30/00
9# Draft Exams w/ Doc./Ref. Due (C.1.d/e/f;C.3.d)	Aug 31, 2000	<i>JLP</i>	9/1/00
10# Peer Reviewer Initials As Reviewed All Parts*	Sep 10, 2000	<i>JLP</i>	9/12/00
11# NRC Supervisor. Initials Approving for Fac. Rev. (C.2.h;C.3.f)*	Sep 10, 2000	<i>JLP</i>	9/12/00
12# Exams Reviewed w/ Fac. (C.1.h;C.2.f&h;C.3.g)	Sep 10, 2000	<i>JLP</i>	10/5/00
13# Final Appl. Due & Assign. Sheet Prepared (C.1.j;C.2.h;ES202)	Oct 16, 2000	<i>JLP</i>	10/19/00
14# NRC Supervisor Approved Final Exams (C.2.i;C.3.h)*	Oct 23, 2000	<i>JLP</i>	10/25/00
15# Final Appl. Rec'd & Waivers Sent (C.2.g)	Oct 23, 2000	<i>JLP</i>	10/23/00
16# Proctor Rules Reviewed w/ Fac. & Written Authorized (C.3.k)	Oct 23, 2000	<i>JLP</i>	10/25/00
17 Exam/Inspection Material to Team (C.3.i)	Oct 23, 2000	<i>JLP</i>	10/25/00
18# Fac. graded exam & Comments Rec'd	Nov 11, 2000	<i>JLP</i>	11/9/00
19# NRC Written Grading Completed	Nov 14, 2000	<i>JLP</i>	11/21/00
20# Examiners Finished Grading Op. Tests	Nov 14, 2000	<i>JLP</i>	11/14/00
21# NRC Ch. Ex. Review Completed	Nov 24, 2000	<i>JLP</i>	11/27/00
22 NRC BC Review Completed*	Nov 25, 2000	<i>JLP</i>	11/27/00
23# RPS/IP # Examinees Updated Before Report Issued	Nov 30, 2000	<i>JLP</i>	11/30/00
24 License/Denials Signed & Report Issued	Nov 30, 2000	<i>JLP</i>	12/4/00
25 Package Closed Out	Dec 21, 2000	<i>JLP</i>	2/9/01
Final Inspection Report Issued, Exam Package to OLA, Facility. Contact Notified of Results			

# Not required for inspections, except as noted.

\* Note Supervisor/Peer initials required.

[] Required NRC-auth. exams only.

When complete, for exams, add to pkg & fwd copy to BC, for insp, fwd orig'l to BC.

Last revised 4/4/00.

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ES-201

Examination Outline  
Quality Checklist

Form ES-201-2

Facility: <u>RIVER BEND STATION</u>		Date of Examination: <u>10/27-11/9/00</u>		
Item	Task Description	Initials		
		a	b	c
WRITEN	1. a. Verify that the outline(s) fit(s) the appropriate model per FS-401.	MLC	J	J
	b. Assess whether the outline was systematically prepared and whether all knowledge and ability categories are appropriately sampled.	MLC	J	J
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	MLC	J	J
	d. Assess whether the repetition from previous examination outlines is excessive.	MLC	J	J
SIM	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.	MLC	J	J
	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.	MLC	J	J
	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.	MLC	J	J
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.	MLC	J	J
	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, <b>** COMMENT</b> (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.	MLC	J	J
	c. Verify that the required administrative topics are covered, with emphasis on performance-based activities.	MLC	J	J
	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.	MLC	J	J
GENERAL	4. a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam section.	MLC	J	J
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	MLC	J	J
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	MLC	J	J
	d. Check for duplication and overlap among exam sections.	MLC	J	J
	e. Check the entire exam for balance of coverage.	MLC	J	J
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	MLC	J	J
a. Author	<u>Michael K. Cantrell</u> Printed Name / Signature	Date <u>7/6/2000</u>		
b. Facility Reviewer(*)	<u>CLARK, JOEY A.</u>	Date <u>7/6/2000</u>		
c. Chief Examiner	<u>M. E. MURPHY</u>	Date <u>7/6/00</u>		
d. NRC Supervisor	<u>Paul Lopez</u> For J.L. Pellet	Date <u>7/6/00</u>		
(*) Not applicable for NRC-developed examinations. <b>** 2 Mt. Part Submitted</b>				

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facsimile transmittal

To: Mike Murphy Fax: (817) 860-8212  
From: Mike Cantrell Date: 07/06/00  
Re: QA Checklist Pages: 2  
CC:

- Urgent     For Review     Please Comment     Please Reply     Please Recycle

Notes: Mike,

Attached is the revised QA checklist with the discrepancy on the 2 alternate path

JPMs noted.

Mike Cantrell

ES-401

Written Examination Quality Checklist

Form ES-401-7

Facility: RIVER BEND STATION Date of Exam: 10/30/2000 Exam Level: RO/SRO

Item Description	Initial		
	s	b'	c'
1. Questions and answers technically accurate and applicable to facility	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2. a. NRC K/As referenced for all questions b. Facility learning objectives referenced as applicable	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3. RO/SRO overlap is no more than 50 percent, and SRO questions are appropriate per Section D.2.d of ES-401	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4. No more than 66 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	<input checked="" type="checkbox"/>	NA
4. (No less than 2 percent) question duplication from the license preparation exam (if independent, which was controlled as indicated below (check the item that applies) and appears appropriate: <input type="checkbox"/> the audit exam was systematically and randomly developed; or <input type="checkbox"/> the audit exam was completed before the license exam was started; or <input checked="" type="checkbox"/> the licensee certifies that there is no duplication; or <input type="checkbox"/> the license exam was prepared by the NRC		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5. Bank use meets limits (no more than 66 percent from the bank, at least 10 percent new, and the rest modified); enter the actual question distribution at right	Bank	Modified	New
	49	28	23
6. Between 50 and 60 percent of the questions on the exam (including the new questions) are written at the comprehension/analysis level; enter the actual question distribution at right	Memory	CIA	
	49	52	
7. References/handouts provided do not give away answers	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
8. Question content conforms with specific K/A statements in the distribution meets previously approved examination outline; deviations are justified	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
9. Question psychometric quality and format meet ES, Appendix B, guidelines	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
10. The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Printed Name / Signature

a. Author: Michael K. Cantrell / Michael K. Cantrell Date: 8-31-2000

b. Facility Reviewer(\*): JOEY A. SHARR / Joe Sharr Date: 8-31-2000

c. NRC Chief Examiner(\*): FRAN LANTIERI / Fran Lantieri Date: 9/25/00

d. NRC Regional Supervisor(\*): Pat Pellet / Pat Pellet Date: 9/25/00

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 6B.  
 (!) The items in brackets do not apply to NRC-prepared examinations.

Facility: <u>RIVER BEND STATION</u>		Date of Exam: <u>10/30/2000</u>		Exam Level: <u>RO/SRO</u>		
Item Description	Initial					
	a	b*	c*			
1. Questions and answers technically accurate and applicable to facility	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
2. a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
3. RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
4. <del>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</del>	<del>—NRG</del>	<del>Other</del>	N/A			
4. [No (less than 5 percent) question duplication from the license screening audit exam (if independently written)] was controlled as indicated below (check the item that applies) and appears appropriate: <input type="checkbox"/> the audit exam was systematically and randomly developed; or <input type="checkbox"/> the audit exam was completed before the license exam was started; or <input checked="" type="checkbox"/> the licensee certifies that there is no duplication; or <input type="checkbox"/> the license exam was prepared by the NRC.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
5. 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	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	50	18	32			
6. 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	CIA		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	44	56				
7. References/handouts provided do not give away answers	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
8. Question content conforms with specific K/A statements in the <del>distribution meets</del> previously approved examination outline; deviations are justified	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
9. Question psychometric quality and format meet ES, Appendix B, guidelines	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
10. The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
a. Author		Printed Name / Signature		Date		
b. Facility Reviewer(*)		MICHAEL CASTRELL / Michael Castrell		8-31-2000		
c. NRC Chief Examiner(*)		JOEL A. CLARK / JOEL A. CLARK		8-31-2000		
d. NRC Regional Supervisor(*)		RYAN LANTZ / Ryan Lantz		9/8/2000 / 9/25/00		
		J. PELLET / J. PELLET		9/28/00		
<p>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 68. [] The items in brackets do not apply to NRC-prepared examinations.</p>						

Facility: <u>RIVER BEND STATION</u>		Date of Examination: <u>10/30/2000</u> Operating Test Number:		
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).	W	J	M
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	W	J	M
c.	The operating test shall not duplicate items from the applicant's audit test(s) (see Section D.1.a).	W	J	M
d.	Overlap with the written examination and between operating test categories is within acceptable limits.	W	J	M
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	W	J	M
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>			MA
b.	The prescribed 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.	W	J	M
a. Author	<u>Michael K. Central / Michael Central</u>	Date: <u>8-31-2000</u>		
b. Facility Reviewer(*)	<u>JOEY A. CLARK</u>	Date: <u>8-31-2000</u>		
c. NRC Chief Examiner (*)	<u>Ryan Lantz / R/L</u> <u>M.E. Murthy</u>	Date: <u>9/11/00</u>		
d. NRC Supervisor (*)	<u>J. Pellet</u> <u>Schubert</u>	Date: <u>9/20/00</u>		
(*) The facility signature is not applicable for NRC-developed tests; two independent NRC reviews are required.				

For Comment and Information

\* Note 1

NOTE 1: JPMs will be sent 9/6/2000

Facility: <u>RIVER BEND STATION</u>		Date of Examination: <u>10/30/2000</u> Operating Test Number:		
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).	N/A	N/A	MA
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	N/A	N/A	
c.	The operating test shall not duplicate items from the applicant's audit test(s) (see Section D.1.a).	N/A	N/A	
d.	Overlap with the written examination and between operating test categories is within acceptable limits.	N/A	N/A	
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	N/A	N/A	✓
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>	MLC	J	M
b.	The prescribed questions in Category A are predominantly open reference and meet the criteria in Attachment 1 of ES-301.	N/A	N/A	M
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.	N/A	N/A	M
d.	At least 20 percent of the JPMs on each test are new or significantly modified.	N/A	N/A	M
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	M
a. Author	<u>Michael K Cantrell</u> / <u>Michael Cantrell</u>	Date: <u>9/7/2000</u>		
b. Facility Reviewer(*)	<u>JOEY A. CLARK</u> / <u>[Signature]</u>	Date: <u>9/7/2000</u>		
c. NRC Chief Examiner (*)	<u>RYAN LANTZ / [Signature]</u> / <u>M.E. MURPHY / [Signature]</u>	Date: <u>9/11/00 / 9/28/00</u>		
d. NRC Supervisor (*)	<u>JL Pellet</u> / <u>[Signature]</u>	Date: <u>9/28/00</u>		
(*) The facility signature is not applicable for NRC-developed tests; two independent NRC reviews are required.				

NOTE: THE WRITTEN EXAMINATION AND SIMULATOR EXTRA WERE PREVIOUSLY SUBMITTED ON 8/31/2000

Facility: *River Bend Solar* Date of Exam: *1/30/2000* Scenario Numbers: *1 2 3* Operating Test No.:

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.	<i>W</i>	<i>J</i>	<i>R</i>
2.	The scenarios consist mostly of related events.	<i>W</i>	<i>J</i>	<i>R</i>
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)	<i>W</i>	<i>J</i>	<i>R</i>
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.	<i>W</i>	<i>J</i>	<i>R</i>
5.	The events are valid with regard to physics and thermodynamics.	<i>W</i>	<i>J</i>	<i>R</i>
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	<i>W</i>	<i>J</i>	<i>R</i>
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.	<i>W</i>	<i>J</i>	<i>R</i>
8.	The simulator modeling is not altered.	<i>W</i>	<i>J</i>	<i>R</i>
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.	<i>W</i>	<i>J</i>	<i>R</i>
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.	<i>W</i>	<i>J</i>	<i>R</i>
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	<i>W</i>	<i>J</i>	<i>R</i>
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).	<i>W</i>	<i>J</i>	<i>R</i>
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.	<i>W</i>	<i>J</i>	<i>R</i>
<b>TARGET QUANTITATIVE ATTRIBUTES (PER SCENARIO; SEE SECTION D.4.D)</b>		<b>Actual Attributes</b>		
1.	Total malfunctions (5-8)	<i>8</i>	<i>8</i>	<i>7</i>
2.	Malfunctions after EOP entry (1-2)	<i>3</i>	<i>2</i>	<i>3</i>
3.	Abnormal events (2-4)	<i>2</i>	<i>3</i>	<i>3</i>
4.	Major transients (1-2)	<i>2</i>	<i>1</i>	<i>1</i>
5.	EOPs entered/requiring substantive actions (1-2)	<i>3</i>	<i>3</i>	<i>2</i>
6.	EOP contingencies requiring substantive actions (0-2)	<i>1</i>	<i>3</i>	<i>0</i>
7.	Critical tasks (2-3)	<i>2</i>	<i>3</i>	<i>2</i>

Facility: <i>River Bend Station</i>		Date of Exam: <i>10/30/00</i>	Scenario Numbers: <i>4151</i>	Operating Test No.:
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.	<i>W</i>	<i>J</i>	<i>M</i>
2.	The scenarios consist mostly of related events.	<i>F</i>	<i>J</i>	<i>M</i>
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)	<i>F</i>	<i>J</i>	<i>M</i>
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.	<i>W</i>	<i>J</i>	<i>M</i>
5.	The events are valid with regard to physics and thermodynamics.	<i>W</i>	<i>J</i>	<i>M</i>
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	<i>W</i>	<i>J</i>	<i>M</i>
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.	<i>W</i>	<i>J</i>	<i>M</i>
8.	The simulator modeling is not altered.	<i>W</i>	<i>J</i>	<i>M</i>
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.	<i>W</i>	<i>J</i>	<i>M</i>
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.	<i>W</i>	<i>J</i>	<i>M</i>
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	<i>W</i>	<i>J</i>	<i>M</i>
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).	<i>W</i>	<i>J</i>	<i>M</i>
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.	<i>W</i>	<i>J</i>	<i>M</i>
TARGET QUANTITATIVE ATTRIBUTES (PER SCENARIO; SEE SECTION D.4.D)		Actual Attributes		
1.	Total malfunctions (5-8)	<i>9, 7, 1</i>	<i>W</i>	<i>J</i>
2.	Malfunctions after EOP entry (1-2)	<i>2, 2, 1</i>	<i>W</i>	<i>J</i>
3.	Abnormal events (2-4)	<i>4, 2, 1</i>	<i>W</i>	<i>J</i>
4.	Major transients (1-2)	<i>2, 1, 1</i>	<i>W</i>	<i>J</i>
5.	EOPs entered/requiring substantive actions (1-2)	<i>3, 3, 1</i>	<i>W</i>	<i>J</i>
6.	EOP contingencies requiring substantive actions (0-2)	<i>0, 0, 1</i>	<i>W</i>	<i>J</i>
7.	Critical tasks (2-3)	<i>3, 4, 1</i>	<i>W</i>	<i>J</i>

ES-301

Transient and Event Checklist

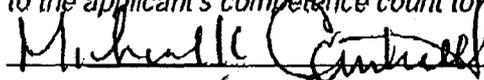
Form ES-301-5

OPERATING TEST NO.: |

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2	3	4
RO	Reactivity	1	1	1	1	
	Normal	1	1	1	1	
	Instrument / Component	7 72	6	6	6	
	Major	1	1	1	1	
As RO	Reactivity	1	1	1	1	
	Normal	0	1	1	1	
	Instrument / Component	7 72	6	6	6	
	Major	1	1	1	1	
SRO-I	Reactivity	0	1	1	1	
	Normal	1	1	1	1	
	Instrument / Component	7 72	6	6	6	
	Major	1	1	1	1	
As SRO	Reactivity	0	1	1	1	
	Normal	1	1	1	1	
	Instrument / Component	7 72	6	6	6	
	Major	1	1	1	1	
SRO-U	Reactivity	0	1	1	1	
	Normal	1	1	1	1	
	Instrument / Component	7 72	6	6	6	
	Major	1	1	1	1	

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



Chief Examiner:



ES-301

## Competencies Checklist

Form ES-301-6

Competencies	Applicant #1 RO/SRO-K/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	5	6	6		3		5		4		6	
Diagnose Events and Conditions	7		7		4		5		4		6	
Understand Plant and System Response	8		8		6		7		7		8	
Comply With and Use Procedures (1)	6		7		4		6		5		6	
Operate Control Boards (2)	φ		φ		6		5		6		7	
Communicate and Interact With the Crew	8		8		8		8		8		8	
Demonstrate Supervisory Ability (3)	8		8		φ		φ		φ		φ	
Comply With and Use Tech. Specs. (3)	8		8		φ		φ		φ		φ	
Notes:	<p>(1) Includes Technical Specification compliance for an RO.  (2) Optional for an SRO-U.  (3) Only applicable to SROs.</p>											

## Instructions:

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

Author:

Chief Examiner:

Michael Centner  
[Signature]

ES-301

Competencies Checklist

Form ES-301-6

Competencies	Applicant #1 RO/SRO- <u>S</u> /SRO-U				Applicant #2 RO/SRO- <u>S</u> /SRO-U				Applicant #3 RO/SRO- <u>S</u> /SRO-U			
	SCENARIO				SCENARIO				SCENARIO			
	1	2	3	4	1	2	3	4	1	2	3	4
Understand and Interpret Annunciators and Alarms	5	7	7		3	7			4	5		
Diagnose Events and Conditions	7	7			4	8			4	5		
Understand Plant and System Response	8	7			6	7			7	6		
Comply With and Use Procedures (1)	8	7			4	7			5	4		
Operate Control Boards (2)	φ	7			6	φ			6	6		
Communicate and Interact With the Crew	8	8			8	9			8	9		
Demonstrate Supervisory Ability (3)	8	φ			φ	9			φ	φ		
Comply With and Use Tech. Specs. (3)	φ	φ			φ	3			φ	φ		
Notes:	<p>(1) Includes Technical Specification compliance for an RO.  (2) Optional for an SRO-U.  (3) Only applicable to SROs.</p>											

## Instructions:

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

Author:

Chief Examiner:

Michael L. Cantrell  
[Signature]

ES-301

## Competencies Checklist

Form ES-301-6

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	5	7	8		3	7	3		4	5	3	
Diagnose Events and Conditions	7	7	4		4	8	4		4	5	2	
Understand Plant and System Response	8	6	5		8	9	5		8	6	4	
Comply With and Use Procedures (1)	8	7	4		4	7	4		5	4	4	
Operate Control Boards (2)	Ø	7	5		6	Ø	Ø		6	6	4	
Communicate and Interact With the Crew	8	8	5		8	9	5		8	9	5	
Demonstrate Supervisory Ability (3)	8	Ø	Ø		Ø	9	5		Ø	Ø	Ø	
Comply With and Use Tech. Specs. (3)	Ø	Ø	Ø		Ø	3			Ø	Ø	Ø	
Notes:	<p>(1) Includes Technical Specification compliance for an RO.  (2) Optional for an SRO-U.  (3) Only applicable to SROs.</p>											

## Instructions:

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

Author:

Chief Examiner:

*Michael Centurion*  
*[Signature]*

ES-301

Competencies Checklist

Form ES-301-6

Competencies	Applicant #1 RO/SRO- <u>(SRO-U)</u>				Applicant #2 <u>(RO)</u> /SRO-I/SRO-U				Applicant #3 <u>(RO)</u> /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	7	6			5	5				7	6	
Diagnose Events and Conditions		8	7			5	5			7	6	
Understand Plant and System Response		9	8			6	7			6	8	
Comply With and Use Procedures (1)		7	7			4	6			7	6	
Operate Control Boards (2)		0	0			6	5			7	7	
Communicate and Interact With the Crew		9	8			9	8			8	8	
Demonstrate Supervisory Ability (3)		9	8			0	0			0	0	
Comply With and Use Tech. Specs. (3)		0	0			0	0			0	0	
Notes:	<p>(1) Includes Technical Specification compliance for an RO.                      (2) Optional for an SRO-U.                      (3) Only applicable to SROs.</p>											

Comment  
 Add  
 Interim  
 Use.

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:

*Michael Centrella*

Chief Examiner:

*[Signature]*

Facility: <i>RIVER BEND STATION</i>		Date of Exam: <i>10/27/00</i>		Exam Level: <i>RO/SRO</i>		
Item Description	Initials					
	a	b	c			
1. Answer key changes and question deletions justified and documented	MW	<i>J</i>	<i>J</i>			
2. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	MW	<i>J</i>	<i>J</i>			
3. Grading for all borderline cases (80% +/- 2%) reviewed in detail	MW	<i>J</i>	<i>J</i>			
4. All other failing examinations checked to ensure that grades are justified	MW	<i>J</i>	<i>J</i>			
5. Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	MW	<i>J</i>	<i>J</i>			
Printed Name / Signature		Date				
a. Grader	<i>Mike Wagner / Mike Wagner</i>	<i>11/2/00</i>				
b. Facility Reviewer(*)	<i>Joe Clark / JOEY A. CLARK</i>	<i>11/2/00</i>				
c. NRC Chief Examiner (*)	<i>M.E. Murphy / M.E. Murphy</i>	<i>11/27/00</i>				
d. NRC Supervisor (*)	<i>John Pellet / J. Pellet</i>	<i>11/27/00</i>				
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.						

Facility: <u>RIVER BEND STATION</u> Date of Exam: <u>10/27/00</u>		Exam Level: <u>RO/SRO</u>		
Item Description	Initials			
	a	b	c	
1. Answer key changes and question deletions justified and documented	MW	J [Signature]		
2. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	MW	J [Signature]		
3. Grading for all borderline cases (80% +/- 2%) reviewed in detail	MW	J	N/A	
4. All other failing examinations checked to ensure that grades are justified	MW	J	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	MW	J [Signature]		
Printed Name / Signature		Date		
a. Grader	<u>Mike Wagner / MWagner</u>		<u>11/2/00</u>	
b. Facility Reviewer(*)	<u>JOEY A. CLARK [Signature]</u>		<u>11/2/00</u>	
c. NRC Chief Examiner (*)	<u>M. E. MURPHY [Signature]</u>		<u>11/27/00</u>	
d. NRC Supervisor (*)	<u>J. Pellet [Signature]</u>		<u>11/27/00</u>	
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.				

01/31/2001 09:35:28

Report 21

## Operator Licensing Exam Schedule

From 10/01/2000 To 12/31/2000

Region: 4

Phase Code: 5 Operational

Exam Week	Site/Docket No./Insp Rpt #	# Candidates	Type	Exam Author	Chief Examiner	Examiners Assigned
10/02/2000	River Bend Station / 05000458 / 2000301		Prep		MURPHY, MICHAEL E.	MURPHY, MICHAEL E.
10/30/2000	River Bend Station / 05000458 / 2000301	RO - <del>4</del> <sup>6</sup> SROU - <del>4</del> <sup>3</sup>	SROI - <del>3</del> <sup>3</sup> Admin	FFF	MURPHY, MICHAEL E.	LANTZ, RYAN E. MURPHY, MICHAEL E. STETKA, THOMAS F. MILLER, LEE

Sites: RBS  
Orgs: 4620  
Exam Author: ALL

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of <sup>10/30/2000 -</sup> ~~11/6/2000~~ as of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to participate in any instruction, evaluation, or other training-related activities involving those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration. I further understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

2. Post-Examination

To the best of my knowledge, I did not divulge to any unauthorized persons any information concerning the NRC licensing examinations administered during the week(s) of <sup>10/30/2000</sup> ~~11/6/2000~~. From the date that I entered into this security agreement until the completion of examination administration, I did not participate in any training-related activities involving those applicants who were administered these licensing examinations.

PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE
1. Michael K. Cantrell	Supervisor OPERATIONS TRAINING	<i>Michael K. Cantrell</i>	4/23/2000	<i>Michael K. Cantrell</i>	1/4/01
2. Mike Wagoner	Operations Training Supervisor	<i>M. Wagoner</i>	6/28/2000	<i>M. Wagoner</i>	8/9/00 (WRITTEN ONLY)
3. JOEY A. CLARK	ASSISTANT OPERATIONS MANAGER	<i>Joey A. Clark</i>	6/29/2000	<i>Joey A. Clark</i>	2/1/01
4. Gary D. Degraw	Senior Operations Manager	<i>Gary D. Degraw</i>	8/9/00	<i>Gary D. Degraw</i>	2/1/01
5. CHAD B. BIRNCHARD	NUCLEAR CONTROL ROOM OPERATOR	<i>Chad B. Birchard</i>	8/11/00	<i>Chad B. Birchard</i>	2/6/01
6. ALFONSO P. CROEJE	NUCLEAR CONTROL OPERATOR	<i>Alfonso P. Croeje</i>	8-11-00	<i>Alfonso P. Croeje</i>	2-6-01
7. Stanley D. Chambers	Control Room Supervisor	<i>Stanley D. Chambers</i>	8-11-00	<i>Stanley D. Chambers</i>	2-5-01
8. David G. Laney	Spec 4 Computer Area & Assessment	<i>David G. Laney</i>	8/15/00	<i>David G. Laney</i>	2-6-01
9. John D. Lee	Senior Engr. System Eng	<i>John D. Lee</i>	8/15/00	<i>John D. Lee</i>	2-6-01
10. Danny L. Jarrell	Control Room Supervisor	<i>Danny L. Jarrell</i>	8/15/00	<i>Danny L. Jarrell</i>	2-6-01
11. DARREN W. FELPS	NUCLEAR CONTROL OPERATOR	<i>Darren W. Felps</i>	8-18-00	<i>Darren W. Felps</i>	2-5-01
12. KEITH J. GUNION	NUCLEAR CONTROL OPERATOR	<i>Keith J. Gunion</i>	8-20-00	<i>Keith J. Gunion</i>	2-5-01
13. RICHARD E. McDONALD	Control Room Supervisor	<i>Richard E. McDonald</i>	9-28-00	<i>Richard E. McDonald</i>	2-1-01
14. John Halgopeth	Nuclear Control Operator	<i>John Halgopeth</i>	9-28-00	<i>John Halgopeth</i>	2-1-01
15. Haibo Tesfay	Sr Engineer/Simulator	<i>Haibo Tesfay</i>	10/3/00	<i>Haibo Tesfay</i>	2/1/01