

**VARIOUS CHECKLISTS**

**FOR THE QUAD CITIES EXAMINATION - DEC 2002**

Facility: <u>Quad Cities</u>		Date of Examination: <u>December 3-12, 2002</u>
Examinations Developed by: <input checked="" type="checkbox"/> 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>AB</i>
-120	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	<i>AB</i>
-120	3. Facility contact briefed on security & other requirements (C.2.c)	<i>AB</i>
-120	4. Corporate notification letter sent (C.2.d)	<i>AB</i>
[-90]	[5. Reference material due (C.1.e; C.3.c)]	<i>AB</i>
-75	6. Integrated examination outline(s) due (C.1.e & f; C.3.d)	<i>AB</i>
-70	7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)	<i>AB</i>
-45	8. Proposed examinations, supporting documentation, and reference materials due (C.1.e, f, g & h; C.3.d)	<i>AB</i>
-30	9. Preliminary license applications due (C.1.i; C.2.g; ES-202)	<i>AB</i>
-14	10. Final license applications due and assignment sheet prepared (C.1.i; C.2.g; ES-202)	<i>AB</i>
-14	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	<i>AB</i>
-14	12. Examinations reviewed with facility licensee (C.1.j; C.2.f & h; C.3.g)	<i>AB</i>
-7	13. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	<i>AB</i>
-7	14. Final applications reviewed; assignment sheet updated; waiver letters sent (C.2.g, ES-204)	<i>AB</i>
-7	15. Proctoring/written exam administration guidelines reviewed with facility licensee and authorization granted to give written exams (if applicable) (C.3.k)	<i>AB</i>
-7	16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	<i>AB</i>
<p>* Target dates are keyed to the examination date identified in the corporate notification letter. They are for planning purposes and may be adjusted on a case-by-case basis in coordination with the facility licensee.</p> <p>[ ] Applies only to examinations prepared by the NRC.</p>		

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of <sup>11-02-02</sup> ~~12-09-02~~ 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 <sup>11-02-02</sup> ~~12-09-02~~. 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)	DATENOTE
1. Ken Moreland	Facility Author	<i>Ken Moreland</i>	7-19-02	<i>Ken Moreland</i>	12-13-02
2. Scott DePrest	EDC	<i>Scott DePrest</i>	7/23/02	<i>Scott DePrest</i>	
3. Gary Thomas	Exam writer	<i>Gary Thomas</i>	7/24/02	<i>Gary Thomas</i>	12-13-02
4. Mike Swegle	Facility Rep	<i>Mike Swegle</i>	8-7-02	<i>Mike Swegle</i>	12-12-02 1440
5. Steve Russell	EDC	<i>Steve Russell</i>	8-9-02	<i>Steve Russell</i>	12/12/02
6. William R. Henn	Simulator support	<i>William R. Henn</i>	8-12-02	<i>William R. Henn</i>	12/12/02
7. Mark R. Bailey	Chemistry Inst.	<i>Mark R. Bailey</i>	08-14-02	<i>Mark Bailey</i>	12/13/02
8. Raymond C. Baker III	Software Engineer	<i>Raymond C. Baker III</i>	08-22-02	<i>Raymond C. Baker III</i>	12/13/02
9. Michael Warren	Medicine Coordinator O&B	<i>Michael Warren</i>	8/30/02	<i>Michael Warren</i>	12/13/02
10. Andy Seymour	Computer Support	<i>Andy Seymour</i>	9/5/02	<i>Andy Seymour</i>	12/13/02
11. James W. McMillan	R.P. Specialist	<i>James W. McMillan</i>	9/6/02	<i>James W. McMillan</i>	12/13/02
12. RICHARD J. GAYLORD	Instructional Technologist	<i>Richard J. Gaylord</i>	9-15-02	<i>Richard J. Gaylord</i>	12-13-02
13. RANDY McLOY	NSO	<i>Randy McLOY</i>	9/17/2	<i>Randy McLOY</i>	12/20/02
14. RONALD BRUMMET	NSO	<i>Ronald Brummet</i>	9-17-02	<i>Ronald Brummet</i>	12-13-02
15. Rick VanHorn	TRN	<i>Rick VanHorn</i>	9-17-2	<i>Rick VanHorn</i>	12/13/02

NOTES:

① Signature on a Hacked copy.

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 12/2/02 <sup>12/9/02</sup> 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 12-2-02 <sup>12-9-02</sup>. 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)	DATENOTE
1. Bryan Aude	NSO	<i>[Signature]</i>	9-23-02	<i>[Signature]</i>	- 12-13-02 -
2. PAUL ROY	NSO	<i>[Signature]</i>	9-23-02	<i>[Signature]</i>	- 12-13-02 -
3. KEVIN CRAVENS	DPS SUPERVISOR	<i>[Signature]</i>	9-23-02	<i>[Signature]</i>	12-20-02
4. Terry F Gallentine	US	<i>[Signature]</i>	10/1/02	<i>[Signature]</i>	12/17/02
5. Rodney Whitmore	NSO	<i>[Signature]</i>	10/3/02	<i>[Signature]</i>	1/03/03
6. Ken Hill	SRO	<i>[Signature]</i>	10/3/02	<i>[Signature]</i>	1-8-03
7. Dalbert Wiebenaa	NSO	<i>[Signature]</i>	10-4-02	<i>[Signature]</i>	12-17-02
8. Gwen Jamieson	OSS	<i>[Signature]</i>	10-9-02	<i>[Signature]</i>	12-13-02
9. WY WAGNER	NSO	<i>[Signature]</i>	11/11/02	<i>[Signature]</i>	12-13-02
10. Jon Gibson	NSO	<i>[Signature]</i>	11/13/2002	<i>[Signature]</i>	12-20-02
11. Larry Stern	US	<i>[Signature]</i>	11/13/02	<i>[Signature]</i>	1-2-3
12. John Hoeller	ONE	<i>[Signature]</i>	11/18/02	<i>[Signature]</i>	1/8/03
13. Jon S. BARRETT	OTM	<i>[Signature]</i>	12/1/02	<i>[Signature]</i>	12/13/02
14. John C. Banks	Inst.	<i>[Signature]</i>	12-3-2	<i>[Signature]</i>	12/13/02
15. Anthony M. Scott	SHIFT OPS Supt	<i>[Signature]</i>	12-29-02	<i>[Signature]</i>	12/13/02

NOTES: ① Sequestering duties for 12/13

Examination Security Agreement

*attached copy*

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of <sup>12-02-02</sup> ~~12-09-02~~ 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 <sup>13-21-02</sup> ~~12-07-02~~. 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. <i>Ken Moreland</i>	<i>Facility Author</i>	<i>[Signature]</i>	<i>7-19-02</i>	<i>[Signature]</i>	<i>12-13-02</i>
2. <i>SCOTT DEPPERT</i>	<i>ETC</i>	<i>[Signature]</i>	<i>7/23/02</i>	<i>SCOTT DEPPERT</i>	<i>11/2/03</i>
3. <i>GARY THOMAS</i>	<i>Exam writer</i>	<i>[Signature]</i>	<i>7/24/02</i>	<i>[Signature]</i>	<i>12-13-02</i>
4. <i>Mike Swegle</i>	<i>Facility Rep</i>	<i>[Signature]</i>	<i>8-7-02</i>	<i>[Signature]</i>	<i>12-12-02 1440</i>
5. <i>Steve Russell</i>	<i>EDC</i>	<i>[Signature]</i>	<i>8-9-02</i>	<i>[Signature]</i>	<i>12/12/02</i>
6. <i>William R. Henn</i>	<i>Simulator support</i>	<i>[Signature]</i>	<i>8-12-02</i>	<i>[Signature]</i>	<i>12/12/02</i>
7. <i>Mark R. Bailey</i>	<i>Chemistry Inst.</i>	<i>[Signature]</i>	<i>08-14-02</i>	<i>[Signature]</i>	<i>12/13/02</i>
8. <i>CommonDC BAYCOTT</i>	<i>Software Engineer</i>	<i>[Signature]</i>	<i>08-22-02</i>	<i>[Signature]</i>	<i>12/13/02</i>
9. <i>Michael Warren</i>	<i>Medicine Coordinator O&amp;B</i>	<i>[Signature]</i>	<i>8/30/02</i>	<i>[Signature]</i>	<i>12/13/02</i>
10. <i>Dudley Seay</i>	<i>Computer Support</i>	<i>[Signature]</i>	<i>9-15-02</i>	<i>[Signature]</i>	<i>12/13/02</i>
11. <i>JAMES W. MANNILLAN</i>	<i>R.P. Specialist</i>	<i>[Signature]</i>	<i>9/6/02</i>	<i>[Signature]</i>	<i>12/13/02</i>
12. <i>RICHARD J. GAYLORD</i>	<i>Instructional Technologist</i>	<i>[Signature]</i>	<i>9-13-02</i>	<i>[Signature]</i>	<i>12-13-02</i>
13. <i>RANDY McCLOY</i>	<i>NSO</i>	<i>[Signature]</i>	<i>9/17/02</i>	<i>[Signature]</i>	<i>12-13-02</i>
14. <i>RONALD BRUMMET</i>	<i>NSO</i>	<i>[Signature]</i>	<i>9-17-02</i>	<i>[Signature]</i>	<i>12-13-02</i>
15. <i>Rick Venilton</i>	<i>TRN</i>	<i>[Signature]</i>	<i>9-17-02</i>	<i>[Signature]</i>	<i>12/13/02</i>

NOTES:

1-2-03; 7:17AM; com. ed ptc  
 12-18-02; 7:26AM; TRAINING WALK UP  
 8:154587675  
 309654224 4 155  
 # 2/ 2

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 12/1/02-12/9/02 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 12-2-02 <sup>12-2-02</sup> <sub>12-9-02</sub>. 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)	DATENOTE
1.	Jed Ferdman	ILT Group Lead (STA)	<i>Jed Ferdman</i>	12/9/02	<i>Jed Ferdman</i>	12/13/02
2.	MIKE KAUFMAN	INSTRUCTOR SURROGATE	<i>Mike Kaufman</i>	12/10/02	<i>Mike Kaufman</i>	12/13/02
3.	Dan Snook	instructor surrogate	<i>Dan Snook</i>	12/10/02	<i>Dan Snook</i>	12-13-02
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						

NOTES:

Facility: <u>Quad Cities</u>		Date of Examination: <u>12-2-02</u>		Operating Test Number: <u>1</u>	
<b>1. GENERAL CRITERIA</b>					
		initial			
		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).	JLM	MS	AP	
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	JLM	MS	AP	
c.	The operating test shall not duplicate items from the applicants' audit test(s) (see Section D.1.a).	JLM	MS	AP	
d.	Overlap with the written examination and between operating test categories is within acceptable limits.	JLM	MS	AP	
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	JLM	MS	AP	
<b>2. WALK-THROUGH (CATEGORY A &amp; B) CRITERIA</b>					
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>• reasonable and 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>	JLM	MS	AP	
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	N/A	
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.	JLM	MS	AP	
d.	At least 20 percent of the JPMs on each test are new or significantly modified.	JLM	MS	AP	
<b>3. SIMULATOR (CATEGORY C) CRITERIA</b>					
a.	The associated simulator operating tests (scenario sets) have been reviewed in accordance with Form ES-301-4 and a copy is attached.	JLM	MS	AP	
	Printed Name / Signature			Date	
a.	Author	<u>Ken Moreland / KCM</u>		<u>10-11-02</u>	
b.	Facility Reviewer(*)	<u>Mike Swegle / Mike Swegle</u>		<u>10-11-02</u>	
c.	NRC Chief Examiner (#)	<u>Hironori Peterson / Hironori Peterson</u>		<u>11-6-02</u>	
d.	NRC Supervisor	<u>RD Lankshun / RDLankshun</u>		<u>11-29-02</u>	
NOTE: * The facility signature is not applicable for NRC-developed tests. # Independent NRC reviewer initial items in Column "c;" chief examiner concurrence required.					

Licensee audit repeats one of Admin JPM (need to replace) HP Corrected 11/11/02 BP

NO questions All JPMs

Facility: Quad Cities		Date of Exam: 12-02-02		Scenario Numbers: 1 / 2 / 3 / 4		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.	KM	MS	AD			
2.	The scenarios consist mostly of related events.	KM	MS	AD			
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>	KM	MS	AD			
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.	KM	MS	AD			
5.	The events are valid with regard to physics and thermodynamics.	KM	MS	AD			
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	KM	MS	AD			
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.	KM	MS	AD			
8.	The simulator modeling is not altered.	KM	MS	AD			
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.	KM	MS	AD			
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.	KM	MS	AD			
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	KM	MS	AD			
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).	KM	MS	AD			
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.	KM	MS	AD			
TARGET QUANTITATIVE ATTRIBUTES (PER SCENARIO; SEE SECTION D.4.D)		Actual Attributes					
1.	Total malfunctions (5-8)	7 / 8 / 6 / 7	KM	MS	AD		
2.	Malfunctions after EOP entry (1-2)	1 / 1 / 2 / 1	KM	MS	AD		
3.	Abnormal events (2-4)	4 / 4 / 4 / 4	KM	MS	AD		
4.	Major transients (1-2)	2 / 2 / 2 / 2	KM	MS	AD		
5.	EOPs entered/requiring substantive actions (1-2)	1 / 1 / 1 / 1	KM	MS	AD		
6.	EOP contingencies requiring substantive actions (0-2)	2 / 1 / 1 / 2	KM	MS	AD		
7.	Critical tasks (2-3)	2 / 3 / 3 / 3	KM	MS	AD		

NRC Copy #1

OPERATING TEST NO.:1

Applicant Type	Evolution Type	Minimum Number	Scenario Number			
			1	2	3	4 Spare
RO/BOP	Reactivity	1	3/-	6/-	2/-	2/-
	Normal	1	-/2	-/1	-/1	-/1
	Instrument / Component	4	1,6 8/4,5	2,4 /3,5	3,4 /5,8	3,6 /4,5
	Major	1	7,8	7,8	6,7	7,8

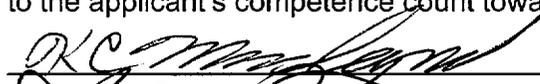
As RO	Reactivity	1	3	6	2	2
	Normal	0	-	-	-	-
	Instrument / Component	2	1,6 8	2,4	3,4	3,6
	Major	1	7,8	7,8	6,7	7,8
SRO-I	Reactivity	0	-	-	-	-
	Normal	1	2	1	1	1
As SRO	Instrument / Component	2	1,4,5 8.6	2-5	3-5, 8	3-6
	Major	1	7,8	7,8	6,7	7,8

SRO-U	Reactivity	0	-	-	-	-
	Normal	1	2	1	1	1
	Instrument / Component	2	1,4,5 8.6	2-5	3-5, 8	3-6
	Major	1	7,8	7,8	6,7	7,8

- 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:


NRC Copy #1

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

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:

*KC [Signature]*

NRC Reviewer:

*[Signature]*

NRC Copy #1

Facility: <u>Quad Cities</u>		Date of Examination: <u>12-02-02</u>
Examination Level (circle one): RO		Operating Test Number: <u>1</u>
	Administrative Topic/Subject Description	Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions
A.1	Ability to perform procedures during all modes of plant operation. 2.1.19 – 3.0	1. Review printout of Thermal Limits Conditions
	Knowledge of operator responsibilities during all modes of plant operation. 2.1.2 – 3.0	1. Evaluate license maintenance requirements.
A.2	Knowledge of surveillance procedures. 2.2.12 – 3.0	1. Perform QCOS 0202-06 Jet Pump Test for Dual Loop Operation (faulted jet pump operability surveillance).
A.3	Ability to perform procedures to guard against personnel exposure. 2.3.10 – 2.9	1. Determine Radiation Exposure.
A.4	Knowledge of emergency communications systems and techniques. 2.4.43 – 2.8	1. Activate ERDS.

Facility: <u>Quad Cities</u>		Date of Examination: <u>12-02-02</u>
Examination Level (circle one): SRO		Operating Test Number: <u>1</u>
Administrative Topic/Subject Description	Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions	
A.1 Ability to recognize indications for systems which are entry-level conditions for tech specs. 2.1.33 – 4.0	1. Determine Isolation Points for Reported System Leakage and Technical Specification Determination	
Knowledge of shift staffing requirements. 2.1.4 – 3.4	1. Evaluate operator working hours and authorize overtime in accordance with GL 82-12 requirements.	
A.2 Knowledge of surveillance procedures. 2.2.12 – 3.4	1. Review a faulted Jet Pump operability surveillance.	
A.3 Knowledge of the requirements for reviewing and approving discharge permits. 2.3.6 – 3.1	1. Perform verification calculations for discharge permit.	
A.4 Knowledge of emergency plan protective action requirements. 2.4.44 – 4.0	1. Determine PARS and fill out NARS form.	

Facility: <u>Quad Cities</u>		Date of Examination: <u>12-02-02</u>
Exam Level (circle one): RO/SRO (I)		Operating Test Number: <u>1</u>
<b>B.1. Control Room Systems</b>		
System / JPM Title	Type Code*	Safety Function
a. Reactor Building Ventilation / Bypass Reactor Building Ventilation Isolations. 288000 A2.01 3.3/3.4	D, S, L	9
b. RCIC / RCIC Manual Initiation (Hardcard) with a turbine trip and recovery.(Important PRA task) 217000 A2.02 3.8/3.7	N, A, S, L	4
c. A.C. Electrical Distribution / Supply Bus 14-1 from Bus 24-1. (Important PRA task SOER 83-6) 262001 A4.01 3.4/3.7	N, S, L	6
d. Reactor Protection System / Perform a manual scram functional test with rod drifts requiring a reactor scram. 212000 A4.01 4.6/4.6	M, A, S	7
e. Core Spray / Monthly Core Spray surveillance with failure of the minimum flow valve. 209001 A4.04 2.9/2.9	D, A, S	2
f. Containment / Vent primary Containment due to high H2 with a failure of the Torus 2" vent to open. 500000 EA1.03 3.4/3.2	N, A, S, L	5
g. Main Steam / Pressurize main Steam Lines. 239001 A4.01 4.2/4.0	D, S, L	3
<b>B.2 Facility Walk-Through</b>		
a. Service Water / Align SSMP Room Cooler to Fire Header APE 295018 AA1.01 3.3/3.4	D, R, L	8
b. Control Rod Hydraulic / Depressurize the Scram Air Header EPE 295037 EA1.05 3.9/4.0	D, R	1
c. Residual Heat Removal Shutdown Cooling / Perform the Auxiliary Electric Room actions to start SDC.(Important PRA task) APE 295021 AA1.02 3.5/3.5	D, L	4
* Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow Power, (R)CA		

Facility: <u>Quad Cities</u>		Date of Examination: <u>12-02-02</u>	
Exam Level (circle one): SRO (U)		Operating Test Number: <u>1</u>	
<b>B.1 Control Room Systems</b>			
System / JPM Title		Type Code*	Safety Function
a.			
b.			
c.			
d. Reactor Protection System / Perform a manual scram functional test with rod drifts requiring a reactor scram. 212000 A4.01 4.6/4.6		M, A, S	7
e.			
f. Containment / Vent primary Containment due to high H2 with a failure of the Torus 2" vent to open. 500000 EA1.03 3.4/3.2		N, A, S, L	5
g. Main Steam / Pressurize main Steam Lines. 239001 A4.01 4.2/4.0		D, S, L	3
<b>B.2 Facility Walk-Through</b>			
a. Service Water / Align SSMP Room Cooler to Fire Header APE 295018 AA1.01 3.3/3.4		D, R, L	8
b.			
c. Residual Heat Removal Shutdown Cooling / Perform the Auxiliary Electric Room actions to start SDC.(Important PRA task) APE 295021 AA1.02 3.5/3.5		D, L	4
* Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow Power, (R)CA			

Facility: <i>Quad Cities</i>		Date of Exam: <i>12-2-02</i>		Exam Level: RO		
Item Description	Initial					
	a	b*	c#			
1. Questions and answers technically accurate and applicable to facility	<i>KM</i>	<i>MS</i>	<i>AD</i>			
2. a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available	<i>KM</i>	<i>MS</i>	<i>AD</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>KM</i>	<i>MS</i>	<i>AD</i>			
4. Question section and duplication from the last two NRC licensing exams appears consistent with a systematic sampling process.			<i>AD</i>			
5. Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: <input checked="" 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 type="checkbox"/> the examinations were developed independently; or <input type="checkbox"/> the licensee certifies that there is no duplication; or <input type="checkbox"/> other (explain)	<i>KM</i>	<i>MS</i>	<i>AD</i>			
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 <i>44</i>	Modified <i>11</i>	New <i>45</i>	<i>KM</i>	<i>MS</i>	<i>AD*</i>
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 <i>46 #</i> <i>48 49</i>	C/A <i>54</i> <i>40 52</i> <i>45 51</i>		<i>KM</i>	<i>MS</i>	<i>AD*</i>
8. References/handouts provided do not give away answers	<i>KM</i>	<i>MS</i>	<i>AD*</i>			
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	<i>KM</i>	<i>MS</i>	<i>AD</i>			
10. Question psychometric quality and format meet ES, Appendix B, guidelines	<i>KM</i>	<i>MS</i>	<i>AD</i>			
11. The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet	<i>KM</i>	<i>MS</i>	<i>AD</i>			
Printed Name / Signature		Date				
a. Author	<i>Ken Moreland / KC Moreland</i>			<i>10/11/02</i>		
b. Facility Reviewer (*)	<i>Mike Swegle / Mike Swegle</i>			<i>10/11/02</i>		
c. NRC Chief Examiner (#)	<i>Hironori Peterson / Hironori Peterson</i>			<i>11-6-02</i>		
d. NRC Regional Supervisor	<i>RD Lankburg / RD Lankburg</i>			<i>11-29-02</i>		
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.						

*Subsequent to prep week 11/11/02*  
*11/11/02*

NRC Copy #1

Facility: <i>Quad Cities</i>		Date of Exam: <i>12-2-02</i>		Exam Level: SRO		
Item Description	Initial					
	a	b*	c#			
1. Questions and answers technically accurate and applicable to facility	<i>KM</i>	<i>MS</i>	<i>HP</i>			
2. a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available	<i>KM</i>	<i>MS</i>	<i>HP</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>KM</i>	<i>MS</i>	<i>HP</i>			
4. Question section and duplication from the last two NRC licensing exams appears consistent with a systematic sampling process.			<i>HP</i>			
5. Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: <input checked="" 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 type="checkbox"/> the examinations were developed independently; or <input type="checkbox"/> the licensee certifies that there is no duplication; or <input type="checkbox"/> other (explain)	<i>KM</i>	<i>MS</i>	<i>HP</i>			
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 <i>34</i>	Modified <i>9</i>	New <i>57</i>	<i>KM</i>	<i>MS</i>	<i>HP</i>
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 <i>48 HP</i> <i>46</i>	C/A <i>55 HP</i> <i>54</i>		<i>KM</i>	<i>MS</i>	<i>HP</i> *
8. References/handouts provided do not give away answers	<i>KM</i>	<i>MS</i>	<i>HP</i> *	<i>subsequent to release week 11/11/02</i>		
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	<i>KM</i>	<i>MS</i>	<i>HP</i>			
10. Question psychometric quality and format meet ES, Appendix B, guidelines	<i>KM</i>	<i>MS</i>	<i>HP</i>			
11. The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet	<i>KM</i>	<i>MS</i>	<i>HP</i>			
Printed Name / Signature		Date				
a. Author	<i>Ken Moreland / KRM</i>			<i>10-11-02</i>		
b. Facility Reviewer (*)	<i>Mike Swegle / Mike Swegle</i>			<i>10-11-02</i>		
c. NRC Chief Examiner (#)	<i>Hironori Peterson / Hironori Peterson</i>			<i>11-6-02</i>		
d. NRC Regional Supervisor	<i>RD Carr / RD Lanksbury</i>			<i>11-25-02</i>		
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.						

NRC Copy #1



Facility: <u>Quad Cities</u>		Date of Exam: <u>12-12-02</u>		Exam Level: <u>RO/SRO</u>	
Item Description	Initials				
	a	b	c		
1. Clean answer sheets copied before grading	<u>u</u>	<u>KM</u>	<u>AP</u>		
2. Answer key changes and question deletions justified and documented	<u>u</u>	<u>KM</u>	<u>AP</u>		
3. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	<u>u</u>	<u>KM</u>	<u>AP</u>		
4. Grading for all borderline cases (80% +/- 2%) reviewed in detail	<u>u</u>	<u>KM</u>	<u>AP</u>		
5. All other failing examinations checked to ensure that grades are justified	<u>NA</u>	<u>NA</u>	<u>NA</u>		
6. Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	<u>u</u>	<u>KM</u>	<u>AP</u>		
Printed Name / Signature		Date			
a. Grader	<u>Anda Seyraeve</u>	<u>12/12/02</u>			
b. Facility Reviewer(*)	<u>Ken MacLanahan</u>	<u>12-12-02</u>			
c. NRC Chief Examiner (*)	<u>Hironori Peterson</u>	<u>12-29-02</u> <u>12-31-02</u>			
d. NRC Supervisor (*)	<u>Roger Lankburg</u>	<u>1/2/03</u>			
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.					

Facility: <u>Quod Cities</u>		Date of Exam: <u>12-12-02</u>		Exam Level: <u>RO/SRO</u>	
Item Description	Initials				
	a	b	c		
1. Clean answer sheets copied before grading	<u>u</u>	<u>KM</u>	<u>AP</u>		
2. Answer key changes and question deletions justified and documented	<u>u</u>	<u>KM</u>	<u>AP</u>		
3. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	<u>u</u>	<u>KM</u>	<u>AP</u>		
4. Grading for all borderline cases (80% +/- 2%) reviewed in detail	<u>u</u>	<u>KM</u>	<u>AP</u>		
5. All other failing examinations checked to ensure that grades are justified	<u>NA</u>	<u>NA</u>	<u>NA</u>		
6. Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	<u>u</u>	<u>KM</u>	<u>AP</u>		
Printed Name / Signature		Date			
a. Grader	<u>Andy Seprave / [Signature]</u>	<u>12/12/02</u>			
b. Facility Reviewer(*)	<u>Ken Moreland / [Signature]</u>	<u>12-18-02</u>			
c. NRC Chief Examiner (*)	<u>Hironori Peterson / [Signature]</u>	<u>12-29-02 &amp; 12-31-02</u>			
d. NRC Supervisor (*)	<u>Roger Linksby / [Signature]</u>	<u>1/27/03</u>			
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.					

Facility: Quad CitiesExamination Date: December 3-12, 2002

Task Description	Date Complete
1. Facility written exam comments or graded exams received and verified complete	Exam Comments: Dated 12/20/02; but verified Rcv'd dated 12/27/02
2. Facility written exam comments reviewed and incorporated and NRC grading completed, if necessary	12/29/02
3. Operating tests graded by NRC examiners	01/10/03
4. NRC Chief examiner review of written exam and operating test grading completed	01/10/03
5. Responsible supervisor review completed	01/27/03
6. Management (licensing official) review completed	01/28/03
7. License and denial letters mailed	01/28/03
8. Facility notified of results	01/28/03
9. Examination report issued (refer to NRC MC 0610)	02/04/03
10. Reference material returned after final resolution of any appeals	N/A