

Administrative Documents
E. I. HATCH NUCLEAR PLANT
EXAM 2002-301
50-321 & 50-366
OCTOBER 16 - 18, 21 - 25, &
OCTOBER 30, 2002,

1. ✓ Exam Preparation Checklist ES-201-1 ✓
2. ✓ Exam Outline Quality Checklist ES-201-2 ✓
3. ✓ Exam Security Agreement ES-201-3 ✓
4. ✓ Administrative Topics Outline (Final) ES-301-1 ✓
5. ✓ Control Room Systems and Facility Walk-through Test Outline
(Final) ES-301-2 ✓
6. ✓ Operating Test Quality Check Sheet ES-301-3 ✓
7. ✓ Simulator Scenario Quality Check Sheet ES-301-4 ✓
8. ✓ Transient and Event Checklist ES-301-5 ✓
9. ✓ Competencies Checklist ES-301-6 ✓
10. ✓ Written Exam Quality Check Sheet ES-401-7 ✓
11. ✓ Written Exam Review Worksheet ES-401-9 ✓
12. ✓ Written Exam Grading Quality Checklist ES-403-1 ✓
13. ✓ Post-Exam Check Sheet ES-501-1 ✓

9/30 Prep

10/21 Exam

8/13/2

ES-201

Examination Preparation Checklist

Form ES-201-1

Facility: <u>HATCH</u>		Date of Examination: <u>Oct.</u>
Examinations Developed by: Facility / <u>(NRC)</u> (circle one)		
Target Date*	Task Description / Reference	Chief Examiner's Initials
-180	1. Examination administration date confirmed (C.1.a; C.2.a & b) <u>9/30 Prep</u>	<u>TM</u>
-120	2. NRC examiners and facility contact assigned (C.1.d; C.2.e) <u>10/21 Exam</u>	<u>TM</u>
-120	3. Facility contact briefed on security & other requirements (C.2.c)	<u>TM</u>
-120	4. Corporate notification letter sent (C.2.d)	<u>TM</u>
[-90]	[5. Reference material due (C.1.e; C.3.c)] <u>3/22/02</u>	<u>TM</u>
-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)	<u>TM</u>
-45	8. Proposed examinations, supporting documentation, and reference materials due (C.1.e, f, g & h; C.3.d)	<u>TM</u>
-30	9. Preliminary license applications due (C.1.i; C.2.g; ES-202)	<u>TM</u>
-14	10. Final license applications due and assignment sheet prepared (C.1.i; C.2.g; ES-202)	<u>ASB</u>
-14	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	<u>ME</u>
-14	12. Examinations reviewed with facility licensee (C.1.j; C.2.f & h; C.3.g)	<u>ASB</u>
-7	13. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	<u>ME</u>
-7	14. Final applications reviewed; assignment sheet updated; waiver letters sent (C.2.g, ES-204)	<u>ASB</u>
-7	15. Proctoring/written exam administration guidelines reviewed with facility licensee and authorization granted to give written exams (if applicable) (C.3.k)	<u>ASB</u>
-7	16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	<u>ASB</u>
<p>* Target dates are keyed to the examination date identified in the corporate notification letter. They are for planning purposes and may be adjusted on a case-by-case basis in coordination with the facility licensee.</p> <p>[] Applies only to examinations prepared by the NRC.</p>		

Facility: <u>HATCH</u>		Date of Examination: <u>Oct 2002</u>		
Item	Task Description	Initials		
		a	b*	c#
1. W R I T T E N	a. Verify that the outline(s) fit(s) the appropriate model per ES-401.	<u>me</u>	<u>N/A</u>	<u>psb</u>
	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.	<u>me</u>		<u>psb</u>
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	<u>me</u>		<u>psb</u>
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	<u>me</u>		<u>psb</u>
2. S I M	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.	<u>me</u>		<u>psb</u>
	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.	<u>me</u>		<u>psb</u>
	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.	<u>me</u>		<u>psb</u>
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.	<u>me</u>		<u>psb</u>
	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.	<u>me</u>		<u>psb</u>
	c. Verify that the required administrative topics are covered, with emphasis on performance-based activities.	<u>me</u>		<u>psb</u>
	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.	<u>me</u>		<u>psb</u>
4. G E N E R A L	a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam section.	<u>me</u>		<u>psb</u>
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	<u>me</u>		<u>psb</u>
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	<u>me</u>		<u>psb</u>
	d. Check for duplication and overlap among exam sections.	<u>me</u>		<u>psb</u>
	e. Check the entire exam for balance of coverage.	<u>me</u>		<u>psb</u>
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	<u>me</u>	<u>✓</u>	<u>psb</u>
a. Author <u>Timothy C. Kals</u>		Printed Name / Signature <u>Timothy C. Kals</u>		Date <u>7-2-02</u>
b. Facility Reviewer (*) <u>N/A</u>				
c. NRC Chief Examiner (#) <u>RICHARD S. BALDWIN</u>		<u>Richard S. Baldwin</u>		<u>7/2/02</u>
d. NRC Supervisor <u>MICHAEL E. ERNSTES</u>		<u>Michael E. Ernstes</u>		<u>10/10/02</u>
Note: * Not applicable for NRC-developed examinations. # Independent NRC reviewer initial items in Column "c;" chief examiner concurrence required.				

NRC EXAMINATION SECURITY AGREEMENT

Attachment 5.4

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ES-201

Examination Security Agreement

Form ES-201-3

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of Oct 14 + 21, 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 participate in any instruction, evaluation, or other ~~training-related activities~~ ^{performance feedback} 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 Oct 14, 21 + 28, 2002. From the date 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 those licensing examinations.

Printed Name	Job Title / Responsibility	Signature (1)	Date	Signature (2)	Date
Richard L. Smith	Plant Instr / Lead	Richard L. Smith	11 July 02	Richard L. Smith	10-31-02
THOMAS F. PHILLIPS	PLANT INST.	Th Phillips	07/1/02	Th Phillips	10/31/02
Robert S. Grantham	Supv Op. Tsg	Robt S. Grantham	9/5/02	Robt S. Grantham	10/31/02
Wade L. McLeod	Plant Instruct. HP	Wade L. McLeod	9-17-02	Wade L. McLeod	10/31/02
RANDALL CLARK	Shift Support Supv	R. Clark	9-20-02	R. Clark	11/5/02
ALTON L. COVINGTON	PLANT OPERATOR	Al L. Covington	9-20-02	Al L. Covington	11-4-02
JOHN L. RICHTER	Simulator Coordinator	John L. Richter	9/26/02	John L. Richter	10/31/02
Dana L. Stille	Sr. I & C Tech.	Dana L. Stille	9-26-02	Dana L. Stille	10-31-02
Ben Smith	Plant Instructor	Ben Smith	092602	Ben Smith	10/31/02
Teff Luckhammer	Simulator Engineer	Teff Luckhammer	9/26/02	Teff Luckhammer	10/31/02
J. D. Sellers	Shift Supv.	J. D. Sellers	9-27-02	J. D. Sellers	11-21-02
GORDON CURRAN	PLANT ENG.	Gordon Curran	10/19/02	Gordon Curran	10/31/02
W C Clark	Ops Nuc Specialist	W C Clark	10-15-02	W C Clark	11-5-02
RE MILLER	Nuc Plant Opwr	RE Miller	10-15-02	RE Miller	10/21/02
D. Tootle	SS/SSS/STA/SRO	D. Tootle	10/15/02	D. Tootle	11/14/02

NRC EXAMINATION SECURITY AGREEMENT

Attachment 5.4

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Examination Security Agreement

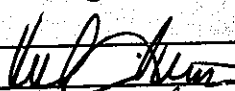

Form ES-201-3

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Printed Name	Job Title / Responsibility	Signature (1)	Date	Signature (2)	Date
* K.G. Smith	STA		10-16-02		10-16-02
C.M. Edmund	INSTRUCTOR	Charles Edmund	10-16-02	Charles Edmund	10/31/02
M.M. GUNN	INSTRUCTOR	M.M. Gunn	10/16/02	M.M. Gunn	11/5/02
AR Ball	INSTRUCTOR	Anthony Ball	10/16/02	Anthony Ball	10/31/02
CR Dedrickson	OPS Manager	CR Dedrickson	10/17/02	CR Dedrickson	11/7/02
R.A. BELCHER	TRNG SUPV	R.A. Belcher	10/21/02	R.A. Belcher	10/31/02
JL ANDERSON	SSS/STA	J. Anderson	10/22/02	J. Anderson	11/25/02
T.L. Epton	ENGR SUPVR	T. Epton	10/24/02	T. Epton	10/31/02
S.B. Tipp	NSIC Mgr	S.B. Tipp	10/24/02	S.B. Tipp	11/1/02
CR Fleen	Tn. Mgr	C. Fleen	10/25/02	C. Fleen	10/31/02
J.A. Betsill	AGM PS	J.A. Betsill	10/25/02	J.A. Betsill	10/31/02
PH WELLS	GM	P. Wells	10/25/02	P. Wells	11/1/02
GREG Johnson	SAER SUPERVISOR	G. Johnson	10/25/02	G. Johnson	10/31/02

* ONLY Briefed on Simulator Scenario #1

Facility: HatchDate of Examination: 10/16-24/02Examination Level (circle one): **RO** / SRO

Operating Test Number: _____

Administrative Topic/Subject Description		Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions
A.1	Conduct of Operations	Use of Overtime Guidelines. K/A 2.1.3 3.0/3.4 (NEW)
	Conduct of Operations	Determine if SBLC tank meets requirements of Tech Specs per table 3.1.7-1 and Table 3.1.7-2. K/A 2.1.25 2.8/3.1 (NEW)
A.2	Equipment Control	Prepare Equipment Clearance and Hold Tags. JPM 25019 K/A 2.2.13, 3.6/3.8.
A.3	Radiation Control	Determine exposure limits for equipment OOS. K/A 2.3.2 2.5/2.9 (NEW)
A.4	Emergency Procedures/Plan	During an Emergency, Perform a Prompt Offsite Dose Assessment Calculation (JPM 25305) K/A 2.4.39 3.3/3.1

Facility: HatchDate of Examination: 10/16-24/02Examination Level (circle one): RO / **SRO**

Operating Test Number: _____

Administrative Topic/Subject Description		Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions
A.1	Conduct of Operations	Use of Overtime Guidelines. K/A 2.1.3 3.0/3.4 (NEW)
	Conduct of Operations	IRM Alternate Power Checks prior to taking the Mode Switch to Run. K/A 2.1.23 3.9/4.0 (NEW)
A.2	Equipment Control	Review 34SV-C11-002-2S, Scram Discharge Volume Isolation Valve Timing and Closure Test K/A 2.1.33 3.4/4.0 (NEW)
A.3	Radiation Control	Determine exposure limits for equipment OOS. K/A 2.3.2 2.5/2.9 (NEW)
A.4	Emergency Procedures/Plan	During an Emergency, with information provided, Perform a PAR. (JPM 25205) K/A 2.4.44 2.4/4.0

Facility: HATCH
Exam Level (circle one): RO / SRO(I) / SRO(U)

Date of Examination: 10/16-24/0202
Operating Test No.: _____

B.1 Control Room Systems

System / JPM Title	Type Code*	Safety Function
a. Recirculation System / Shift Recirc Control from Individual to Master Control. (4.06)	D,S	7 ^u
b. Containment / Initiate Emergency Torus Venting using the Emergency Vent Path. (13.53)	D,S	5
c. HPCI / Perform a manual Startup of HPCI and maintain reactor water level in band.	M,S	2
d. Recirculation System / Start a Recirc MG Set from the Control Room with Failure of Pump Seal. (4.02)	M,A,S	4
e. Reactor Protection / Transfer the Mode Switch to S/U with one APRM reading high.	N,L,A,S	1 ^u
f. RHRSW / Crosstie the RHR Service Water with a failure of the second RHRSW pump to start. (34.08)	M,S,A	8 ^u
g. 4160 VAC / Transfer An Emergency 4160 VAC Bus From the Emergency to Normal Power Supply. (27.11)	D,S	6

B.2 Facility Walk-Through

a. RCIC / From the Remote Shutdown Panel, Start RCIC for Injection into the Reactor. (39.16)	D,R	2 ^u
b. SBLC / From Outside the Control Room, Inject Boron Using the SBLC System with Failure of "A" Pump to start. (11.12)	M,A,R	1
c. Fire Protection / During a Loss of Air, Isolate the Fire Protection Sprinklers. (36.13)	D,R	8 ^u

* 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: HATCH		Date of Examination: OCT 2002	
		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).	TUC	N/A	POS
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	TUC		POS
c.	The operating test shall not duplicate items from the applicants' audit test(s) (see Section D.1.a).	TUC		POS
d.	Overlap with the written examination and between operating test categories is within acceptable limits.	TUC		POS
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	TUC	✓	POS

2. WALK-THROUGH (CATEGORY A & B) CRITERIA		a	b*	c#
a.	Each JPM includes the following, as applicable: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> detailed expected actions with exact criteria and nomenclature system response and other examiner cues statements describing important observations to be made by the applicant criteria for successful completion of the task identification of critical steps and their associated performance standards restrictions on the sequence of steps, if applicable 	TUC	N/A	POS
b.	The prescribed questions in Category A are predominantly open reference and meet the criteria in Attachment 1 of ES-301.	TUC		POS
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.	TUC		POS
d.	At least 20 percent of the JPMs on each test are new or significantly modified.	TUC	✓	POS

3. SIMULATOR (CATEGORY C) CRITERIA		a	b*	c#
a.	The associated simulator operating tests (scenario sets) have been reviewed in accordance with Form ES-301-4 and a copy is attached.	TUC	N/A	POS

	Printed Name / Signature	Date
a. Author	Timothy C. Kolb / <i>Timothy C. Kolb</i>	7-2-02
b. Facility Reviewer(*)	N/A	
c. NRC Chief Examiner (#)	<i>Richard Baldwin</i> / R.S. Baldwin	7/2/02
d. NRC Supervisor	MICHAEL E. ERNSTES / <i>Michael E. Ernstes</i>	10/10/02

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

Facility: HATCH		Date of Exam: OCT 2002		Scenario Numbers: 1 2 3		Operating Test No.: 1	
QUALITATIVE ATTRIBUTES				Initials			
				a	b*	c#	
					N/A		
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.			TH		PSB	
2.	The scenarios consist mostly of related events.			TH		PSB	
3.	Each event description consists of <ul style="list-style-type: none"> 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) 			TH		PSB	
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.			TH		PSB	
5.	The events are valid with regard to physics and thermodynamics.			TH		PSB	
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.			TH		PSB	
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.			TH		PSB	
8.	The simulator modeling is not altered.			TH		PSB	
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.			TH		PSB	
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.			TH		PSB	
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).			TH		PSB	
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).			TH		PSB	
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.			TH	✓	PSB	
TARGET QUANTITATIVE ATTRIBUTES (PER SCENARIO; SEE SECTION D.4.D)				Actual Attributes	--	--	
1.	Total malfunctions (5-8)			5 1 5 1 6	TH	N/A	
2.	Malfunctions after EOP entry (1-2)			1 1 0 1 2	TH		
3.	Abnormal events (2-4)			4 1 5 1 4	TH		
4.	Major transients (1-2)			1 1 1 1 1	TH		
5.	EOPs entered/requiring substantive actions (1-2)			2 1 2 1 2	TH		
6.	EOP contingencies requiring substantive actions (0-2)			2 1 1 1 1	TH		
7.	Critical tasks (2-3)			2 1 2 1 2	TH	✓	

OPERATING TEST NO.: 1 - 4

Applicant Type	Evolution Type	Minimum Number	Scenario Number							
			RO1BOP		RO2BOP		RO3BOP		RO4BOP	
RO	Reactivity	1	4		1		2		2	
	Normal	1		1		4		1		1
	Instrument / Component	4	2,3	5,6	2,3 5	3,5	3,5	4,6	3,5	4,5
	Major	1	7	7	6	6	7	7	6	6
As RO	Reactivity	1	4		1		2		2	
	Normal	0		1		4		1		1
	Instrument / Component	2	2,3	5,6	2,3 5	3,5	3,5	4,6	3,5	4,5
	Major	1	7	7	6	6	7	7	6	6
As SRO	Reactivity	0	4		1		2		2	
	Normal	1	1		4		1		1	
	Instrument / Component	2	2,3,5 6		2,3 5		3,4 5,6		3,4 5	
	Major	1	7		6		7		6	
SRO-U	Reactivity	0	4		1		2		2	
	Normal	1	1		4		1		1	
	Instrument / Component	2	2,3,5 6		2,3 5		3,4 5,6		3,4 5	
	Major	1	7		6		7		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:

Scenario 1, 2, 3 and 4 - T. Kolb

NRC Reviewer:



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

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: HATCH		Date of Exam: OCT 2002		Exam Level: RO																																						
Item Description				Initial																																						
				a	b*	c#																																				
1.	Questions and answers technically accurate and applicable to facility			True	N/A	Pass																																				
2.	a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available			True		Pass																																				
3.	RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401			True	Y	Pass																																				
1.	Question selection and duplication from the last two NRC licensing exams appears consistent with a systematic sampling process					Pass																																				
5.	Question duplication from the license screening/audit exam 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 examinations were developed independently; or <input type="checkbox"/> the licensee certifies that there is no duplication; or <input type="checkbox"/> other (explain)			True	N/A	Pass																																				
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	Modified	New																																						
		40	9	51	True	Pass																																				
7.	Between 50 and 60 percent of the questions on the exam (including 10 new questions) are written at the comprehension/analysis level; enter the actual question distribution at right	Memory	C/A																																							
		50	50		True	Pass																																				
8.	References/handouts provided do not give away answers			True		Pass																																				
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			True		Pass																																				
10.	Question psychometric quality and format meet ES, Appendix B, guidelines			True		Pass																																				
11.	The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet			True	Y	Pass																																				
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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.																																										

* LICENSEE IDENTIFIED ADDITIONAL CONCERNS AFTER 9/24/02 APPROVAL.
 FOLLOWING SUBSEQUENT CHANGES, EXAM APPROVED 10/29/02

Facility: HATCH		Date of Exam: OCT 2002		Exam Level: SRO																				
Item Description				Initial																				
				a	b*	c#																		
1.	Questions and answers technically accurate and applicable to facility			Y	N/A	Y																		
2.	a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available			Y		Y																		
3.	RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401			Y	Y	Y																		
1.	Question selection and duplication from the last two NRC licensing exams appears consistent with a systematic sampling process					Y																		
5.	Question duplication from the license screening/audit exam 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 examinations were developed independently; or <input type="checkbox"/> the licensee certifies that there is no duplication; or <input type="checkbox"/> other (explain)			Y	N/A	Y																		
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	Modified	New		Y																		
		36	8	56	Y																			
7.	Between 50 and 60 percent of the questions on the exam (including 10 new questions) are written at the comprehension/analysis level; enter the actual question distribution at right	Memory	C/A			Y																		
		46	54	Y																				
8.	References/handouts provided do not give away answers			Y		Y																		
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			Y		Y																		
10.	Question psychometric quality and format meet ES, Appendix B, guidelines			Y		Y																		
11.	The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet			Y	Y	Y																		
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* LICENSEE IDENTIFIED ADDITIONAL CONCERNS AFTER 9/24/02 APPROVAL.
 FOLLOWING SUBSEQUENT CHANGES, EXAM APPROVED 10/28/02.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only			
Instructions																
[Refer to Section D of ES-401 and Appendix B for additional information regarding each of the following concepts.]																
1.	Enter the level of knowledge (LOK) of each question as either (F)undamental or (H)igher cognitive level.															
2.	Enter the level of difficulty (LOD) of each question using a 1 - 5 (easy - difficult) rating scale (questions in the 2 - 4 range are acceptable).															
3.	Check the appropriate box if a psychometric flaw is identified: <ul style="list-style-type: none"> • The stem lacks sufficient focus to elicit the correct answer (e.g., unclear intent, more information is needed, or too much needless information). • The stem or distractors contain cues (i.e., clues, specific determiners, phrasing, length, etc). • The answer choices are a collection of unrelated true/false statements. • More than one distractor is not credible. • One or more distractors is (are) partially correct (e.g., if the applicant can make unstated assumptions that are not contradicted by stem). 															
4.	Check the appropriate box if a job content error is identified: <ul style="list-style-type: none"> • The question is not linked to the job requirements (i.e., the question has a valid K/A but, as written, is not operational in content). • The question requires the recall of knowledge that is too specific for the closed reference test mode (i.e., it is not required to be known from memory). • The question contains data with an unrealistic level of accuracy or inconsistent units (e.g., panel meter in percent with question in gallons). • The question requires reverse logic or application compared to the job requirements. 															
5.	Check questions that are sampled for conformance with the approved K/A and those that are designated SRO-only (K/A and license level mismatches are unacceptable).															
6.	Based on the reviewer's judgment, is the question as written (U)nacceptable (requiring repair or replacement), in need of (E)ditorial enhancement, or (S)atisfactory?															
7.	At a minimum, explain any "U" ratings (e.g., how the Appendix B psychometric attributes are not being met).															

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation	
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only			
RO/SRO COMBINED QUESTIONS																
1	F	2-3													E	201002A3.03, MEM 3.2/3.2, Bank WOOTF The answer is the only distractor that states "...Reset the drift alarm..." The other distractors should read the same, where appropriate. Add "drift" to the other distractors. TCK - Changed to WOOTF and added "drift" to other distractors 5/29.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
															<p>June 14, 2002 (10:32AM) RSB, need to remove the word best from the stem. Corrected.</p> <p>9/23/02 - Facility requested procedure added to stem.</p> <p>TCK - Added "per 34GO -OPS 001-2S to the stem. Facility accepted resolution. 9/24</p> <p>10/4/02 - Facility requested "Group 1" replace "central in-sequence" in the answers.</p> <p>S TCK - Revised as requested. 10/7/02</p>
2	H	3												S	<p>202001A1.07, C/A 2.7/2.8, Bank</p> <p>Appears ok</p> <p>TCK - made "one" all capitals. 5/29</p> <p>June 14, 2002 (10:39AM) RSB, ok</p>
3	H	2-3	X			X								E	<p>202002K3.05, C/A 3.2/3.3, Bank</p> <p>WOOTF</p> <p>Distractor C would not be chosen because 22 % is the lowest an Recirc pump can operate. Change the distractor t have 22 vice 20.</p> <p>TCK - Changed to WOOTF and changed distractor C to 22%. 5/29</p> <p>June 14, 2002 (11:20AM), RSB OK</p> <p>8/2/02 - Facility requested change to correct answer since the system has been upgraded since material was given to us.</p> <p>TCK - Verified with updated information that proposed change is correct and revised correct answer. 8/7.</p> <p>S 9/19/02 - Facility accepted resolution. TCK</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
4	F	3												E	203000A1.01, MEM 4.2/4.3, Bank WOOTF Is this something they are required to know from memory? Would not think so, but will let the licensee decide. TCK - Changed to WOOTF. All operators should know when it is appropriate to re-inject. 5/29 S June 14, 2002 (11:20AM), RSB, OK
5	H	3												E	206000K6.08, C/A 3.4/3.4, New WOOTF Otherwise it appears ok. TCK - Changed to WOOTF. 5/29 S June 14, 2002 (11:21AM), RSB, OK
6	F	2-3												U	211000A3.04, MEM 4.3/4.4, New WOOTF Seems there is more than one answer. I think B C and D could be correct. Discuss with Tim. There is a note in the provided references that say that Discharge pressure, tank level, and neutron level are used to confirm that SBLC is injecting into the Reactor Core. May need to change the question to warrant this info. TCK - Changed to WOOTF. Modified answers B and C to ensure D is the only correct answer. 5/29. S June 14, 2002 (11:21AM), RSB, OK

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
7	H	3												E	<p>211000A4.01, C/A 3.9/3.9, New</p> <p>WOOTF</p> <p>Need to add to the stem the procedure noun name associated with 34SO-C41-003-OS.</p> <p>Why would distractor's C and D be chosen. Is there something in the procedure that would allow for this? Why are they plausible? Discuss with Tim</p> <p>TCK - Changed to WOOTF and added procedure name. 5/29</p> <p>June 14, 2002 (11:24AM), RSB, OK as is.</p> <p>9/23/02 - Facility requested stem to indicate that the instrument failed downscale.</p>
														S	<p>TCK - Changed as requested and facility accepted resolution. 9/24</p>
8	M	3												E	<p>212000K4.06, MEM 3.0/3.0, Bank</p> <p>WOOTF,</p> <p>Not sure of the answer. Discuss with Tim or licensee.</p> <p>TCK - Changed to WOOTF. 5/29</p> <p>June 14, 2002 (12:20PM), RSB, OK as is</p> <p>10/4/02 - Facility identified that Rod Control System is different than described in the question.</p>
														S	<p>TCK - Developed new question with material supplied by the facility. 10/7</p>
9	F	3												E	<p>214000K4.01, MEM 3.0/3.1, Bank</p> <p>WOOTF</p> <p>Otherwise appears ok.</p> <p>TCK - Changed to WOOTF. 5/29</p>
														S	<p>June 14, 2002 (12:21PM), RSB, OK as changed</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
12	H	3				X								E	217000K1.01, C/A 3.5/3.5, New WOOTF Distractor's C and D both have reasons for the valve positioning, however, distractors A and B do not. Either remove the reasons or add reasons to the others. Discuss TCK - Changed to WOOTF. Removed reasons for valve travel in distractors C and D. 5/29
														S	June 14, 2002 (12:22PM), RSB, OK AS CHANGED

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
13	H	3												E	<p>219000A2.08, C/A 2.3/3.5, New</p> <p>Parenthesis around the period after Trip.Pump B trip." Replace badly with excessively.</p> <p>Procedure usage? Not sure this will fly, do not normally require the applicants memorize non-automatic action steps of ARPs. Discuss with the licensee to see if it is applicable. This would be a direct look up if we allowed the use of the ARP.</p> <p>Discuss with Tim Each Distractor has the same first sentence, can we move it up to the stem? If it does apply, then need to under line some of the words to key in on loop and pump. It was difficult to read.</p> <p>Disagree with level of knowledge. Not sure this is a C/A type question. If you do not know the answer, not sure you could use the stem to determine the answer. More of a Memory level question.</p> <p>TCK - Changed to WOOTF. Replaced badly with excessively. Did not change distractors and believe it is C/A since have to determine if the Loop or the Pump is inoperable. 5/29</p> <p>June 14, 2002 (12:50PM), RSB, OK AS CHANGED.</p> <p>8/2/02 - Facility suggested changes in stem for Operator Titles and to remove reference the HPCI surveillance.</p> <p>TCK - Changes made as requested. 8/5</p> <p>9/19/02 - Facility accepted resolution. TCK</p> <p>9/23/02 - Facility requested "B RHR Loop" be changed to "Division 2 RHR".</p> <p>TCK - Changed all occurrences as requested and facility accepted resolution. 9/24</p> <p>10/4/02 - Facility noted that you cannot just call an RHR Pump inoperable but you must call the division inoperable if a pump is isolated.</p> <p>TCK - Revised all answers and updated reference section. There was no correct answer prior to the change. 10/7/02</p>
														S	

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
14	H	3												E	<p>223001A2.12, C/A 3.7/3.8, Bank</p> <p>WOOTF</p> <p>Are we going to provide the curve for them to use? If so we need to provide the vortex limit curve also if there is one available.</p> <p>TCK - Changed to WOOTF. Students will be provided both graphs. 5/29</p> <p><u>June 14, 2002 (1:08PM), RSB, OK AS CHANGED, Added to the Reference material that the applicant needs to get Graph 9, 11A and 11B</u></p> <p>8/2/02 - Facility requested to change TAF to -165".</p> <p>TCK - Changed stem to read "Before level reached -185" which is technically more correct. 8/5.</p> <p>9/19/02 - Facility accepted resolution. TCK</p>
15	H	3												E	<p>223002K1.07, C/A 3.4/3.6, New</p> <p>In this question, is the RCIC isolation signal the Suppression Chamber high temp 170?</p> <p>add degrees to F.</p> <p>WOOTF</p> <p>Otherwise appears ok.</p> <p>TCK - Changed to WOOTF. 5/29</p> <p>June 18, 2002 (6:24AM), OK as is</p> <p>8/2/02 - Facility requested changing 'Turbine' to 'Trip and' in the stem.</p> <p>TCK - Change made as requested. 8/5.</p> <p>9/19/02 - Facility accepted resolution. TCK</p> <p>10/4/02 - Facility requested "Inboard" and "Outboard" be placed in front of valve number.</p>
														S	<p>TCK - Revised as requested. 10/7/02</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
16	H	3												S	<p>226001K2.02, C/A 2.9/2.9, New</p> <p>Rx change to reactor in stem. Done</p> <p>are 470 and 480 open. Should state this if it is so.</p> <p>What about changing distractor A to be powered from its respective DG which looks to be 2C EDG. That would be more reasonable.</p> <p>Are they going to need the schematic to determine this, or can they do it from memory?</p> <p>Otherwise appears ok.</p> <p>TCK - Changed distractor A to indicate 2C EDG. Students will not need schematic. 5/29</p> <p>June 18, 2002 (6:26AM). RSB, OK as changed</p> <p>8/2/02 - Facility requested minor change to stem regarding 2B Recirc Pp</p> <p>TCK - Changed as requested. 8/5</p> <p>9/19/02 - Facility accepted resolution. TCK</p>
17	H	3												S	<p>234000K6.02, C/A 2.8/3.5, New</p> <p>Do we in the stem need to state what are the actions according to TS's. That would link it to that procedure. May not get the same answer or they may think there is no answer. Did we bounce this off of the ARP requirements?</p> <p>Otherwise appears ok</p> <p>TCK - Changed to WOOTF. The applicants must determine that an electrical AC source is INOPERABLE. 5/29</p> <p>June 18, 2002 (6:28AM), RSB ok as changed.</p> <p>10/4/02 - Facility requested reference for Tech Specs.</p> <p>TCK - Reference would be a direct look up and the operators are expected to know immediate actions. Facility agreed to leave as is. 10/7</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
18	F	3												E	<p>239001K4.04, MEM 3.4/3.5, New</p> <p>WOOTF</p> <p>Stem needs to be reworded. Should not lift the whole statement out of the procedure. There is also some teaching in the stem, which is not necessary.</p> <p>WOOTF describes the purpose of the Main Steam line restrictors?</p> <p>Add different accidents to the first part of each distractor.</p> <p>To limit the loss of coolant from the RPV following a steam line rupture outside containment to the extent that the RPV water level would not reach TAF prior to the MSIVs closing.</p> <p>Pick other accidents and add their bases to the other distractors. Make two similar and then the answer and another one.</p> <p>TCK - Changed to WOOTF. Changed all the answers to account for change in stem. Incorporated suggestions above. 5/30</p> <p>June 18, 2002 (6:30AM), RSB, OK as changed</p> <p>8/2/02 - Facility requested to change answer 'D' to read as taught in lesson plan.</p> <p>TCK - Change not made as requested. The FSAR describes the purpose of the Main Steam Line Flow Restrictors by themselves. The lesson plan describes the purpose of the Flow Restrictors in conjunction with the MSIV's. These are different. 8/5</p> <p>9/19/02 - Facility accepted resolution unless they find more documentation. TCK</p> <p>9/23/02 - Facility requested correct answer be revised to indicate what was in the lesson plan.</p> <p>TCK - Revised distractor A to ensure it is not the correct answer. Revised correct answer to lesson plan info since operators are not required to memorize the FSAR. Facility accepted resolution. 9/24</p>
														S	

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
19	F	3												E	239002A1.01, MEM 3.3/3.4, New Underline inadvertent. Done WOOTF when rewritten, under line and Capitalize <u>EXPECT</u> , that way there is not a misunderstanding. Otherwise appears ok. TCK - Changed to WOOTF and underlined appropriate words. 5/30 June 18, 2002 (6:32AM), RSB, ok as changed. TCK - Changed to C/A since have to determine physical conditions and how the plant will react.. Also changed pressure band. 6/21
20	H	2-3				X								E	241002K6.05, MEM3.4/3.4, Bank have three distractors that have the MSIVs last. Could rearrange A to have them second. TCK - Changed to WOOTF. Changed distractor D for consistency. 5/30 June 18, 2002 (6:33AM), RSB, ok as changed. 8/2/02 - Facility requested stem to state correct alarm tile title. TCK - Changed as requested. 8/5 S 9/19/02 - Facility accepted resolution. TCK

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
21	F	2-3	X											E	<p>245000K1.09, MEM 2.7/2.7, New Change stem to read something like: On a turbine trip from a loss of D.C. <u>power</u>, WOOTF is the reason an operator must be sent locally to trip the Generator Exciter Field Breaker after the PCBs open?</p> <p>The lesson plan provided states that this occurs with the loss of 125/250 VDC Switchgear "A". Do we need to say that in the stem? Also the lesson plan does not talk about the exciter field breaker. Discuss w/Tim</p> <p>TCK - Re-worded stem for WOOTF and added that 125/250 VDC Switchgear "A" caused the turbine trip. 5/30</p> <p>June 18, 2002 (6:35AM), RSB, ok as changed</p> <p>10/4/02 - Facility requested replacement /modification of question due to 3 correct answers.</p> <p>TCK - Developed new question based on input supplied from the facility. 10/7</p>
22	H	3	X											E	<p>259002K3.02, C/A 3.7/3.7, Bank</p> <p>Need to add that A is in automatic control.</p> <p>WOOTF</p> <p>Help, do not understand the material and the question. Discuss</p> <p>TCK - It doesn't matter if the controller is in manual or automatic. Changed to WOOTF. 5/30</p>
														S	<p>June 18, 2002 (6:51AM), RSB, ok as changed.</p>
23	F	3												E	<p>261000K4.01, MEM 3.7/3.8, Modified</p> <p>WOOTF</p> <p>Otherwise appears ok.</p> <p>TCK - Changed to WOOTF. 5/30</p>
														S	<p>June 18, 2002 (7:36AM), RSB, ok as changed</p> <p>9/23/02 - Facility requested "Unit 1" be added to stem.</p> <p>TCK - Revised as requested and facility accepted resolution. 9/24</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
24	H	3				X								E	<p>262001A4.02, C/A 3.4/3.4, Modified</p> <p>WOOTF</p> <p>This question could be modified to use the two adjustments as in each distractor and then change the second part of C and D to be like A and B. If you know the answer is VARS on the second part from the bank question it is a 1 out of 2 chance you could get it correct.</p> <p>Discuss with Tim.</p> <p>TCK - Changed to WOOTF and adjusted distractors to be consistent. Also updated the reasons distractors are wrong. 5/30</p> <p>June 18, 2002 (7:38AM), RSB, ok as changed</p> <p>TCK - Changed Cog level to C/A since you have to know if a rad level is exceeded and you also need to know what actions occur. 6/21</p> <p>8/2/02 - Facility requested answers changed from "VAR flow" to "Reactive load".</p> <p>TCK - Changed as requested since same concept. 8/5.</p> <p>9/19/02 - Facility accepted resolution. TCK</p> <p>9/23/02 - Facility requested "main" be placed in front of generator in stem.</p> <p>S TCK - Changed as requested and facility accepted resolution. 9/24</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
25	M	2-3												E	<p>263000K3.01, MEM 3.4/3.8, New</p> <p>Do we need to add the windows numbers for the annunciators in the stem?</p> <p>WOOTF</p> <p>Appears ok.</p> <p>TCK - Changed to WOOTF. Don't think we need alarm window numbers in the stem. 5/30</p> <p>June 18, 2002 (7:39AM), RSB, ok as is.</p> <p>8/2/02 - Facility requested "or" changed to "OR" in stem.</p> <p>TCK - Changed two 125/250V alarms to read exactly as the alarm tiles read. 8/5.</p> <p>10/4/02 - Facility wanted to add "only" in front of 125 VDC 2D. Also believes that question is beyond requirements of K/A.</p> <p>TCK - Meets K/A requirements. Stem says that 125 VDC 2D is lost. Did not change question and facility agreed to this resolution. 10/7</p>
26	M	2-3	X			X								U	<p>268000A1.01, MEM 2.7/3.1, Bank</p> <p>Stem should read HIGH Trip Setpoint, WOOTF</p> <p>Why is distractor A not also correct. Granted it is not the total actions but it does happen. Discuss.</p> <p>TCK - Changed to WOOTF. Added <u>all</u> to the stem so that a partial answer is not correct. Changed stem to HIGH trip setpoint. 5/30</p> <p>June 18, 2002 (7:39AM), RSB</p> <p>Capitalized ALL and still underlined it. Done. Should be ok as changed.</p> <p>8/2/02 - Facility requested stem to indicated "2B" tank and to change the discharge flow rate to 65 gpm which is normal flow rate.</p> <p>TCK - Changed stem as requested. 8/5.</p>
														S	<p>9/19/02 - Facility accepted resolution. TCK</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
27	H	2-3												E	<p>272000K2.05, C/A 2.6/2.9, Bank</p> <p>WOOTF</p> <p>Is there another A train instrument we can substitute that is not correct? That could be better having a known A train DC power instrument. Disagree with LOK, more of a memory level question. Discuss</p> <p>TCK - Changed to WOOTF and changed to Memory level of knowledge. Left the distractors as they were. 5/30</p>
														S	<p>June 18, 2002 (7:41AM). RSB, ok as is</p>
28	F	2-3	X			X								E	<p>286000A1.06, MEM 2.9/3.0, New</p> <p>WOOTF</p> <p>Changed # to psig</p> <p>Could we use a distractor that state there is only one SRV?</p> <p>Distractor D does not make sense to me. Pressure is increasing at a rate of 25 psig/hour however, the distractor states the system would dump if the pressure REACHES 263, HOW DOES IT DO THAT? Need another distractor.</p> <p>TCK - Changed to WOOTF and changed # to psig. Revised distractor D to make sense. 5/30</p> <p>June 18, 2002 (7:43AM), RSB, ok as changed</p> <p>9/18/02 - Facility requested KA changed from A1.06 to A1.01 due to tank pressure being plant specific. There are no tank pressure limits significant to operations and their ability to operate cardox system.</p> <p>TCK - Changed KA and replaced question as requested. Revised question to make answers more plausible. Changed to C/A. 9/19</p>
														S	<p>9/19/02 - Facility accepted resolution. TCK</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
29	H	3												S	<p>288000A2.05, C/A 2.6/2.7, New</p> <p>WOOTF</p> <p>There are a lot of distractors that concern themselves with TS type answers. Are the applicants supposed to know, from memory, this information. Are we going to provide the applicable TS. Additionally, are the applicants supposed to know the actions of the cold weather procedure from memory? Is there a learning objective that requires this?</p> <p>Facility may not agree with asking this question.</p> <p>Not sure I agree with the level of knowledge designation. Looks more like a memory! Discuss with Tim.</p> <p>TCK - Changed to WOOTF. Revised distract A to say what could happen. Remains at C/A since the applicant must know that the oil and coolant systems have immersion heaters to protect the D/G. 5/30</p> <p>June 18, 2002 (7:46AM), RSB, ok as changed.</p> <p>8/2/02 - Facility requested to change stem to indicate temp. drops to the low teens. Also, remove freezing fire piping from the correct answer.</p> <p>TCK - Changed as requested. 8/5.</p> <p>9/19/02 - Facility accepted resolution. TCK</p> <p>10/4/02 - Facility requested additional info added to correct answer to meet the stem requirements.</p> <p>TCK - Changed as requested. 10/7/02</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
30	H	2-3				X								E	<p>290001A3.01, C/A 3.9/4.0, Bank</p> <p>Do we have to designate which Unit's 609 detectors are in alarm? Does it matter? Could not figure out from the lesson plan. Combined question 23 also deals with these detectors.</p> <p>Stem could be clearer concerning 609 C and D. May be easier to read if we make that one sentence into two. A and B have a HI-HI signal. Channels C and D have failed as is. When I first read it I incorrectly thought that D was the only channel that failed as is.</p> <p>Is this credible, both channels failing as it. Could we have one in test and not functioning and then have the other corresponding channel fail as is? This may make more credible and make more sense to the reader.</p> <p>Low level C/A, close to a memory level question.</p> <p>TCK - Revised stem to make two sentences and placed a unit designator for the instruments. 5/30</p> <p>June 18, 2002 (7:49AM), RSB, appears to be ok as changed</p> <p>8/2/02 - Facility requested EPN change in stem.</p> <p>TCK - changed as requested. 8/5.</p> <p>9/19/02 - Facility accepted resolution. TCK</p> <p>10/4/02 - Facility requested changing question for rad monitors to all read Hi-Hi. Also, to add the "A" that Reactor Building ventilation remains operating.</p>
														S	TCK - Change not made since meets K/A and Enabling Objectives. 10/7
31	F	3												E	<p>290002G2.1.28, MEM 3.2/3.3, Bank</p> <p>WOOTF</p> <p>Otherwise ok.</p> <p>TCK - Changed to WOOTF. 5/30</p>
														S	June 18, 2002 (7:53AM), RSB ok as changed.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
32	H	3												E	<p>290003K5.02, C/A 2.8/2.8, Bank</p> <p>WOOTF</p> <p>Do we expect them to memorize this information? I don't think so even though it is a bank question.</p> <p>If you provide the TS it will be a direct Look up.</p> <p>TCK - Changed to WOOTF. Added pressurization mode to the stem. 5/30</p> <p>June 18, 2002 (7:53AM), RSB, ok as changed.</p> <p>8/2/02 - Facility requested references for Tech Specs with SR's.</p> <p>TCK - Tech Spec and SR requirements will be provided. This is not a direct look-up since the operator has to convert the 1/5 inch water guage to .2" water gauge. 8/5.</p> <p>9/19/02 - Facility accepted resolution. TCK</p>
33	F	3												S	<p>295001AK2.07, MEM 3.4/3.4, Bank</p> <p>Appears ok.</p> <p>TCK - Capitalized ONE and separated sentence. 5/30</p> <p>June 18, 2002 (7:55AM), RSB, ok</p>
34														S	<p>295003AK2.01, C/A 3.2/3.3, New</p> <p>June 18, 2002 (8:20AM), RSB, Question appear to be ok as is</p> <p>10/4/02 - Facility requested "de-energized" in stem be underlined.</p> <p>TCK - Bolded and underlined "de-energized". 10/7</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
35	F	3												E	<p>295004AK3.03, MEM 3.1/3.5, Bank</p> <p>WOOTF</p> <p>The learning objective states: "GIVEN a loss of 125/250 VDC buses, 34AB-R22-2/1S, AND System Operating Procedures , Describe the operability of the following systems. Not sure the licensee will consider this question fair with out the references provided.</p> <p>TCK - Changed to WOOTF. Should be allowed since matches K/A. 5/30</p> <p>June 18, 2002 (8:20AM), RSB, Again, not sure the licensee will allow this question. Will let them decide, even though the KA matches it does not make it any more valid.</p> <p>8/2/02 - Facility requested stem to indicate RCIC Turbine trip alarm instead of LPCI Mode of RHR not available. System has been changed.</p> <p>TCK - Removed LPCI Mode of RHR and replaced with 125/250V Battery volts low alarm since RCIC trip is only associated with SWGR 2A. 8/5.</p> <p>S 9/19/02 - Facility accepted resolution. TCK</p>
36	F	3												S	<p>295005AA1.05, MEM 3.6/3.6, New</p> <p>WOOTF</p> <p>Appears ok</p> <p>TCK - Changed to WOOTF and deleted end of last sentence in stem. 5/30</p> <p>June 18, 2002 (8:24AM), RSB, OK as changed.</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
37	H	3				X								E	<p>295006AK3.01, C/A 3.8/3.9, New WOOTF</p> <p>Distractor D does not make sense. If level is going to increase why would it do so when something is collapsing? This needs to be changed.</p> <p>TCK - Changed to WOOTF. Revised distractor D as suggested. 5/30</p> <p>June 18, 2002 (8:25AM), RSB. Ok as changed.</p> <p>8/2/02 - Facility requested minor changes to 2 distractors.</p> <p>TCK - Changed as requested. 8/5.</p> <p>9/19/02 - Facility accepted resolution. TCK</p> <p>9/23/02 - Facility requested "initial" be placed in front of reactor water level in the stem.</p>
38														S	<p>TCK - Changed as requested and facility accepted resolution. 9/24</p>
39	F	3	X			X								E	<p>295008AK3.01, MEM 3.4/3.5, New</p> <p>WOOTF is the reason the Main Turbine receives a trip signal if the RPV experiences a high water level?</p> <p>Rewrite Distractor C to read Initiates an anticipatory reactor scram due to the simultaneous trip of the reactor feedwater pump.</p> <p>TCK - Changed to WOOTF format. Revised distractor C. 5/30</p>
														S	<p>June 18, 2002 (8:36AM), RSB, appears ok</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
40	F	3												E	<p>295009AK1.05, MEM 3.3/3.4, Bank</p> <p>WOOTF is the <u>main</u> reason the RPV level is lowered during an ATWS?</p> <p>Discuss with TIM</p> <p>The material attached speaks more to reduction in power than natural circulation.</p> <p>TCK - Changed to WOOTF and changed the correct answer per the lesson plan documentation. 5/30,</p> <p>June 18, 2002 (8:37AM), RSB, appears ok.</p> <p>8/2/02 - Facility requested "decreasing head pressure" to be changed to "Reducing the natural circulation driving head".</p> <p>TCK - Changed as requested per referenced documents. 8/5.</p>
														S	<p>9/19/02 - Facility accepted resolution. TCK</p>
41	H	3				X								E	<p>295009G2.4.1, C/A 4.3/4.6, Modified</p> <p>WOOTF</p> <p>In distractor A is there a time when you would maintain level in such a wide band? If so ok, if not then may need a better distractor.</p> <p>Would we expect the RO's to know this from memory?</p> <p>TCK - Changed to WOOTF. Revised level band as suggested. RO's are expected to know when to start injecting during an ATWS. 5/30</p> <p>June 18, 2002 (8:55AM), RSB, change appears ok.</p> <p>8/2/02 - Facility requested stem to be changed to 11% RTP or distribute a copy of the BIIT Curve.</p> <p>TCK - Distribute copy of BIIT curve. 8/5</p>
														S	<p>9/19/02 - Facility accepted resolution. TCK</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
42	H	3												S	<p>295012AA1.02, C/A 3.8/3.8, New</p> <p>WOOTF</p> <p>The designators you use are cooling units, does that matter that you call it a fan? Terminology may be different.</p> <p>Appears ok</p> <p>TCK - Changed to WOOTF. Changed fans to Units in first part of stem. Added degrees. 5/30</p> <p>June 18, 2002 (9:08AM), RSB, Appears ok as changed.</p> <p>10/4/02 - Facility requested replacement of editing of question due to exceeding K/A requirements.</p> <p>TCK - K/A is the ability to operate and monitor drywell cooling system on high drywell temperature. Question meets K/A/ Only one answer identifies the correct equipment to start on an auto start signal. Leave question as-is. 10/7</p>
43	F	3												E	<p>295013AK1.03, MEM 3.0/3.3, Bank</p> <p>WOOTF</p> <p>Distractor A does not make sense, in the respect that, from the chronology listed in the stem, it is not reasonable to think that this action had already taken place.. This may be an additional correct answer.</p> <p>Discuss</p> <p>TCK - Changed to WOOTF. Distractor A is a plausible action. Added degrees. 5/30</p>
														S	<p>June 18, 2002 (9:09AM), RSB, ok as changed</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
44	F	3												S	<p>295013AK3.01, MEM 3.6/3.8, New.</p> <p>WOOTF Appears ok</p> <p>TCK - Changed to WOOTF. Added degrees. 5/30</p> <p>June 18, 2002 (9:11AM), RSB, ok</p> <p>8/2/02 - Facility wants to change name of surveillance in stem.</p> <p>TCK - Changed name of surveillance as requested. 8/5.</p> <p>9/18/02 - Facility requested question be revised to address the reason why heat addition to the containment is halted at 105F. Previous question referred to basis for 24 hr time limit to be in this condition.</p> <p>TCK - Changed as requested due to more operationally oriented and facility accepted resolution. 9/19</p>
45														S	<p>295014AK2.03, C/A 3.3/3.4, New,</p> <p>June 18, 2002 (9:11AM), RSB, Ok, but is this an RO knowledge level question? Will allow the licensee to determine.</p> <p>8/2/02 - Facility wanted "Abnormal Operational Occurances" changed to "Plant Transients".</p> <p>TCK - Added "Plant Transients" in parenthesis. 8/5</p> <p>9/19/02 - Facility accepted resolution. TCK</p>
46														S	<p>295015AA2.01, MEM 4.1/4.3, Bank</p> <p>No reference material, do not understand, need to discuss with Tim</p> <p>TCK - Changed to WOOTF. Provided references. Leaving this valve open would allow feedwater to continue to feed into the vessel. 6/3</p> <p>June 18, 2002 (12:55PM), RSB, OK</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
47	F	3												E	<p>295016AK3.01, MEM 4.1/4.2, New</p> <p>The stem of the question lead the reader to believe that the reactor did not scram. Need to add words that allow the reader to understand that the additional requirements are due to the reactor failing to scram.</p> <p>WOOTF</p> <p>The licensee may not require the RO's to have this memorized.</p> <p>TCK - Changed to WOOTF. Revised stem to make it clearer that the Ro should insert a manual scram from the control room if possible prior to abandoning the control room. 5/30</p> <p>June 18, 2002 (12:59PM), RSB, ok as changed.</p> <p>8/2/02 - Facility suggested minor spelling changes.</p> <p>TCK - Changed as requested. 8/5</p> <p>9/19/02 - Facility accepted resolution. TCK</p> <p>10/4/02 - Facility believes question exceeds requirements for RO.</p> <p>TCK - Matches K/A for the reason you insert a scram when the control room is abandoned. 4.1 for RO. Leave as-is. 10/7</p>
48	F	3												E	<p>295018AK2.02, MEM 3.4/3.6, Modified.</p> <p>WOOTF</p> <p>Appears ok.</p> <p>TCK - Changed to WOOTF. 5/30</p>
														S	<p>June 18, 2002 (1:19PM), RSB, ok as changed</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
49	C	3												E	<p>295021AK2.05, C/A 2.7/2.8, New</p> <p>WOOTF</p> <p>The question appears to be ok. However, not sure where you obtained the info about distractor A. Discuss with Tim.</p> <p>The licensee may not like this question because you have used their procedure to develop a good question. It has many aspects of the procedure that are true but not for the initial conditions. They may think this is an SRO only question. We will see what they say.</p> <p>TCK - Changed to WOOTF.</p> <p>June 18, 2002 (1:20PM), RSB, ok as changed</p> <p>8/2/02 - Facility suggested minor wording correction in stem.</p> <p>TCK - Changed as requested. 8/5</p> <p>S 9/19/02 - Facility accepted resolution. TCK</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
50	H	3				X						X		U	<p>295022G2.1.30, C/A 3.9/3.4, Bank</p> <p>K/A : Ability to locate and operate components / including local controls.</p> <p>The stem of the question places the operator observing a running CRD pump. He then needs to observe the current running conditions and should determine what automatic action should have occurred.</p> <p>Not sure the KA is fully met. While the question provides indications the applicant would not locate and operate components locally. The essence of the question is to determine if the status of the pump is correct and if it should or should not have started.</p> <p>If this question is valid for this KA then distractors A and B should be changed to Should have started but</p> <p>The explanation for Distractor D is incorrect, it says that this trip is bypassed, but Distractor B states that there is no such trip. Need to adjust one or the other.</p> <p>WOOTF</p> <p>TCK - Changed to WOOTF. Revised distractors A and B. Need to discuss if meets K/A. 5/30</p> <p>June 18, 2002 (1:23PM), RSB, ok as changed</p> <p>8/2/02 - Facility requested PEO be change to SO.</p> <p>TCK - Changed as requested. 8/5</p> <p>S 9/19/02 - Facility accepted resolution. TCK</p>
51	F	3												E	<p>295023AK1.03, MEM 3.7/4.0, New</p> <p>WOOTF</p> <p>Otherwise appears ok.</p> <p>TCK - Changed to WOOTF. 5/30</p> <p>S June 18, 2002 (1:24PM), RSB, ok as changed</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
52	F	2-3	X											E	<p>295024EA1.04, MEM 3.4/3.8, New</p> <p>WOOTF</p> <p>While the question is correct, the licensee may complain on being tricky. Would suggest to underline and capitalize the word <u>MINIMUM</u> and some how have the reference to the procedure. For example:</p> <p>In accordance with 34SO-E11-010-2S, "Residual Heat Removal System," which one of the following is the <u>MINIMUM</u> drywell spray flow rate required to ensure an <u>effective</u> drywell pressure reduction?</p> <p>Additionally, I am not sure where the numbers for pressure and the temperature for the drywell came from. The temperature seems a bit high based on the pressure of the drywell. I figure it should be approx. 244 deg f. Why don't we pick a pressure like 10 psig and use this that way the corresponding saturation pressure is 250 deg. F.</p> <p>TCK - Changed to WOOTF. Revised stem to add applicable procedure and underlined minimum and effective. Also, the numbers for the Drywell parameters are based on the minimum requirements to initiate drywell sprays. Added degrees. 5/30</p>
														S	June 18, 2002 (1:52PM), RSB, ok as changed
53	F	3				X								E	<p>295025EA1.07, MEM 4.1/4.1, Bank</p> <p>WOOTF</p> <p>appears to be ok, however, distractor D bothers me a little. Would it be better if for distractor D we used some other pressure instead of drywell pressure. In the stem of the question we don't even address drywell pressure. Why don't we do the same for D as we did for the corresponding A and B combination? That way we cover all the parameters.</p> <p>TCK - Changed to WOOTF. Revised distractor D to be consistent with distractors A and B. 5/30</p>
														S	June 18, 2002 (1:52PM), RSB, placed 1190 on the same line as psig to read easier. Ok as changed.

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
54	H	3												S	<p>295026EK2.04, C/A 2.5/2.8, New</p> <p>Appears to be ok</p> <p>TCK - Capitalized ONE. Added degrees. 5/30</p> <p>June 18, 2002 (1:55PM), RSB, ok as changed</p> <p>8/2/02 - Facility requested correct name for surveillance test.</p> <p>TCK - Changed as requested. 8/5</p> <p>9/19/02 - Facility accepted resolution. TCK</p> <p>10/4/02 - Facility requested question be replaced since too difficult and doesn't meet K/A/</p> <p>TCK - Question meets K/A and Enabling Objective and is technically correct. Left as-is. 10/7</p>
55	F	2-3												S	<p>295028EK1.02, MEM 2.9/3.1, Bank</p> <p>Appears to be ok</p> <p>TCK - Capitalized ONE.</p> <p>June 18, 2002 (1:55PM), RSB, ok as changed.</p>
56	F	3	X											E	<p>295029EK1.01, MEM 3.4/3.7, Bank</p> <p>WOOTF</p> <p>Need to reword the stem to remove BEST, we don't usually use that terminology. Can we tie this to the procedure. It will not give the basis but it will provide the step.</p> <p>TCK - Changed to WOOTF. Removed the word BEST from the stem. Reworded the stem to include the PC-1 procedure. 5/30</p>
														S	<p>June 18, 2002 (1:56PM), RSB, ok as changed</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	# units	Back- ward	Q= K/A	SRO Only		
57	F	3	X	X										E-U	<p>295030EK3.03, MEM 3.6/3.7, New</p> <p>WOOTF</p> <p>The stem states that HPCI is required to be tripped on low Torus Level, but RCIC not address. Then in 2 distractors, A and C you say that it now has a low level trip. This may be a specific determiner.</p> <p>Is there a case for B ever to be true? If not, does not seem credible. Discuss with Tim.</p> <p>TCK - Changed to WOOTF. Revised stem to make it more clear. 5/30</p>
														S	<p>June 18, 2002 (1:56PM), RSB, ok as changed</p>
58	F	3	X			X								E	<p>295032EK3.03, MEM 3.5/3.8, New</p> <p>WOOTF</p> <p>Add to the stem, "The SC SECONDARY CONTAINMENT CONTROL EOP"</p> <p>Key words in each distractor needs to be underlined. For example:</p> <p>A. Underline <u>immediate</u> and <u>indirect</u></p> <p>B. Underline <u>substantial</u> and <u>may lead</u></p> <p>C. Underline <u>immediate</u> and <u>direct</u></p> <p>D. Underline <u>substantial</u> and <u>safest condition</u></p> <p>I think that this will help misreading the distractors.</p> <p>TCK - Changed to WOOTF. Made suggested underline comments. 5/30</p>
														S	<p>June 18, 2002 (1:58PM), RSB, ok as changed.</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
59	H	3												E	<p>295036EA1.02, C/A 3.5/3.6, Bank</p> <p>WOOTF</p> <p>Need to add to the stem what procedures Immediate Operator Actions you expect them to do.</p> <p>In accordance with the EOP SC, which one of the following is the immediate response. Is this really an immediate response? Will they need the EOP? Not sure this is an item required to be memorized. Discuss.</p> <p>If you provide the procedure then it would be a look up.</p> <p>TCK - Changed to WOOTF. Revised stem with the procedure that is controlling the actions. EOP is required to answer question. 5/30</p> <p>E? June 18, 2002 (2:00PM), RSB, ok as changed. Since the EOP is required to answer this, will this be a direct look up??</p> <p>S TCK - This is not a direct look-up since the student must determine from a different table that max safe water level is exceeded. 6/20</p>
60	F	2-3												E	<p>295037EK2.05, MEM 4.0/4.1, New</p> <p>added differential pressure (dp) vise just dp in the stem.</p> <p>WOOTF.</p> <p>Otherwise appears ok.</p> <p>TCK - Changed to WOOTF. Added differential pressure to stem. 5/30</p> <p>S June 18, 2002 (2:02PM), RSB, ok as changed</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
61	F	3												E	<p>295037EK3.02, MEM 3.6/3.9, Bank</p> <p>Add to the stem the Valve number for the minimum flow valve. SO-21, MOV 19 ?</p> <p>Otherwise appears ok.</p> <p>Could change the answer and have it be D and ask that question about the minimum flow. Not necessary but just a suggestion.</p> <p>TCK - Changed to WOOTF. Added valve number to stem. 5/30</p>
														S	<p>June 18, 2002 (2:03PM). RSB, ok as changed.</p>
62	F	3												S	<p>295038EA2.03, MEM 3.5/4.3, Bank</p> <p>Is this RO knowledge?? Not sure. Let the licensee decide.</p> <p>Otherwise ok.</p> <p>TCK - Capitalized ONE. 5/30</p> <p>June 18, 2002 (2:05PM), RSB, ok as changed, will let licensee decide if RO knowledge.</p>
63	H	3	X											E	<p>295038EK2.03, C/A 2.9/3.5, Modified,</p> <p>WOOTF</p> <p>Otherwise it appears ok.</p> <p>TCK - Changed to WOOTF. Revised stem to determine impact on high radiation signal. 5/30</p>
														S	<p>June 18, 2002 (2:05PM), RSB, ok as changed</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q=K/A	SRO Only		
64	H	3												S	<p>400000A4.01, C/A 3.1/3.0, Bank</p> <p>Appears to ok.</p> <p>Disagree with level of knowledge. If you don't have this memorized you do not know the answer. No way to figure it out from the stem of the question.</p> <p>TCK - Changed to WOOTF. Believe question is C/A since the applicant must know the effects on the equipment with a pump trip. 5/30</p> <p>June 18, 2002 (2:07PM), RSB, ok as is, C/A is ok.</p>
65	F	3	X											E	<p>500000EA1.01, MEM 3.4/3.3, Bank</p> <p>WOOTF happens when the temperature decreases below the setpoint?</p> <p>In those distractors that use BUT, can we substitute HOWEVER?</p> <p>Otherwise appears ok.</p> <p>TCK - Changed to WOOTF. Changed BUT to however. Added degrees. 5/30.</p> <p>June 18, 2002 (2:08PM), RSB, ok as changed.</p> <p>8/2/02 - Facility believes that answer B is correct since procedure 34SO-T49-001-2S says a temp of 220 F on Blower Inlet Temp required the Operator to place the Operate Switch in OFF. This would prevent the blower from re-starting.</p> <p>TCK - Added note the stem stating "Assume no operator action" which would still make C correct. 8/5</p> <p>9/18/02 - Facility requested question be replaced with proposed question since KA talks about instrumentation and not the H2 recombiners.</p> <p>TCK - Changed as requested since better aligns with KA and facility accepted resolution. 9/19</p> <p>S</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
66	F	2												E	<p>600000AA2.06, MEM 2.5/2.8, New</p> <p>WOOTF</p> <p>The procedure does not state pressurization mode. Only isolation operation. Need to make it like the procedure, unless the specific referenced procedure states what the stem did. Did not look at the other procedure.</p> <p>Otherwise appears ok.</p> <p>TCK - Changed to WOOTF. The procedure for operating the control room ventilation system has the step labeled isolation/pressurization mode. 5/30</p> <p>June 18, 2002 (2:17PM), RSB, ok as changed</p> <p>8/2/02 - Facility requests minor editorial change.</p> <p>TCK - Changed as requested. 8/5</p> <p>S 9/19/02 - Facility accepted resolution. TCK</p>
67														S	<p>G2.1.29, MEM3.4/3.3, Modified</p> <p>June 18, 2002 (2:19PM), RSB, Changed the word needs to is required to ok as is</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
68	F	3												U	<p>G2.1.32, MEM 3.4/3.8, New</p> <p>KA states: Ability to explain and apply system limits and precautions.</p> <p>The question really requires memory of the new setpoints. The question does not require application or explanation</p> <p>TCK - Changed to WOOTF. Revised the question to also know what actions must be taken when a safety limit is violated. 5/30</p> <p>June 18, 2002 (2:22PM), RSB, ok as changed, however, not sure the licensee expects this as RO knowledge level. Need to ask</p> <p>8/2/02 - Facility requested minor spelling change.</p> <p>TCK - Changed as requested. 8/5</p> <p>9/19/02 - Facility accepted resolution. TCK</p> <p>10/4/02 - Facility requested different question for RO since it is beyond the requirements for the RO to know.</p> <p>S TCK - Developed new question for SRO and RO. 10/7</p>
69	H	3												S	<p>G2.2.1, C/A3.7/3.6, New</p> <p>Disagree with LOK, more of a memory, if you do not know, can not figure out.</p> <p>Otherwise appears ok.</p> <p>Not so sure the licensee expects the RO's to have the number memorized.</p> <p>TCK - Changed to Memory. 5/30</p> <p>June 18, 2002 (2:24PM), RSB, ok as redesignated.</p> <p>10/4/02 - Facility requested thermal power changed from 21% to 23% and delete reference to power level required by TS.</p> <p>TCK - Revised question to address APRM adjustment only. 10/7</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
70	F	2-3												S	<p>G2.3.1, MEM 2.6/3.0, Modified.</p> <p>WOOTF</p> <p>Otherwise appears ok.</p> <p>TCK - Changed to WOOTF. 5/30</p> <p>June 18, 2002 (2:26PM), RSB, ok as is</p>
71	F	3												U	<p>G2.3.2, MEM 2.5/2.9, Bank</p> <p>KA states: Knowledge of the facility ALARA program.</p> <p>Question concerns itself with posting areas associated with given initial conditions. Not sure this matches.</p> <p>May need to select KA 2.3.10 this matches better.</p> <p>TCK - Changed to WOOTF. I think the question meets the K/A. 5/30</p>
														S	<p>June 18, 2002 (2:27PM), RSB, ok will accept</p>
72	H													S	<p>G2.4.12, C/A 3.4/3.9, New</p> <p>WOOTF</p> <p>Otherwise appears ok.</p> <p>TCK - Changed to WOOTF. Added degrees. 5/30</p> <p>June 18, 2002 (2:50PM), RSB, ok</p>
73														S	<p>G2.4.16, C/A 3.0/4.0, New</p> <p>June 18, 2002 (2:51PM), RSB, ok</p> <p>10/4/02 - Facility requested references be given to RO.</p> <p>TCK - Added statement to stem that provides references of EOP Flowcharts to the RO. 10/7</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
74	F	2-3												S	<p>G2.4.43, MEM 2.8/3.5, New</p> <p>WOOTF</p> <p>Otherwise appears ok.</p> <p>TCK - Changed to WOOTF. 5/30</p> <p>June 18, 2002 (2:52PM), RSB, ok</p> <p>8/2/02 - Facility requested clarification in the stem to indicate that the communications are between the Control Room and Fire Brigade.</p> <p>TCK - Changed as requested. 8/5</p> <p>9/19/02 - Facility accepted resolution. TCK</p>
75														S	<p>G2.4.47, C/A 3.4/3.7, New</p> <p>June 18, 2002 (2:52PM), RSB,</p> <p>Are we going to have to provide the procedure for them to use? Are they expected to know this from memory?</p> <p>TCK - RO and SRO should know what conditions require a Blowdown. 6/30</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
1	H	3-4						X						E	<p>204000K5.08, C/A 2.6/2.6, New WOOTF</p> <p>add degrees before F in the stem Not sure this is a number the applicants are required to have committed to memory. If you provide the TS as I think the utility would want this makes it trivial.</p> <p>Are they required to have this number in memory?</p> <p>TCK - Changed to WOOTF. The applicants should know the isolation setpoints for the RWCU system. Added degrees. 5/30</p> <p>June 18, 2002 (2:59PM), RSB, ok as changed</p> <p>8/2/02 - Facility requested minor spelling changes and a copy of the applicable Tech Specs and Table.</p> <p>TCK - Made suggested editorial changes and revised answers to make C correct since previous answer was incorrect. 8/5.</p> <p>9/19/02 - Facility accepted resolution. TCK</p> <p>10/4/02 - Facility requested answer "C" be changed from 24 hours to 12 hours since both B and C would be correct. Also requested Bases as reference.</p> <p>S TCK - Revised as requested but did not supply bases. 10/7/02</p>

[illegible]

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
3	H	3-4						X						E	<p>206000K5.08, C/A 3.0/3.2, NEW</p> <p>WOOTF</p> <p>Should be able to break out the first part of each distractor because it is same for all. "HPCI Vacuum Breaker Isolation Valve MO F104 must be closed."</p> <p>Are TS's going to be provided? Do you expect them to know from memory?</p> <p>TCK - Changed to WOOTF and moved first part of all answers to the stem. Tech specs will be provided. 5/31</p> <p>June 19, 2002 (6:11AM), RSB, This question was NOT changed as stated. Is this not a direct look up when the TS's are provided? Discuss with Tim.</p> <p>TCK - Ensured question was changed as described above. This will not be a direct look-up since Tech Specs don't say when to declare HPCI inoperable. 6/20</p> <p>8/2/02 - Facility requested EPN change to valve numbers.</p> <p>TCK - Changed as requested.</p> <p>9/12 - Facility requested simplified drawing of HPCI Exhaust sys.</p> <p>TCK - Denied request. Operator should know exhaust path of HPCI and facility accepted resolution. 9/19</p> <p>10/4/02 - Facility requested "design" be replaced with "safety" in the answers. Requested Bases as reference.</p> <p>S TCK - Revised as requested. Bases not supplied. 10/7/02</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
4	H	3-4												E	209001G2.2.21, C/A 2.3/3.5, New, WOOTF Place "" around A, done Are TS's going to be provided? Not sure could answer without them. Will this make it a direct look up then? TCK - Changed to WOOTF. Added "" around A. Tech Specs will not be provided since they don't specify which surveillances need to be performed. 5/31 June 19, 2002 (6:15AM),RSB, will see if the licensee will have a problem with this question.
5	H	3												E	215004K5.03, C/A 2.8/2.8, New WOOTF form should be from in distractor D. Fixed. Should distractor C be above range 2, since the opposite is true, Range 2 and below. I would think that range 2 would not be counted. TCK - Changed to WOOTF. Changed IRM reading in stem to Range 2 since SRMs are not required with IRMs on range 3 or above. 5/31 June 19, 2002 (6:19AM), RSB, ok as changed 8/2/02 - Facility requests copy of TRM section 3.3.2 for reference. TCK - Provided copy of TRM section 3.3.2 and Tech Spec section 3.3.1.2. 8/5. S 9/19/02 - Facility accepted resolution. TCK

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
6	H	3												E S	<p>218000G2.2.22, C/A 3.4/4.1, New WOOTF</p> <p>Are TS's going to be provided. Ok if they are.</p> <p>Start sequence with 1600 vice 2200.</p> <p>TCK - Changed to WOOTF. Will provide Tss. Didn't understand part about sequence. 5/31</p> <p>June 19, 2002 (6:20AM), RSB, on the distractors start with 1600 vice 2200, Changed in test. Changed the answer to B and then rearranged the description of the distractors to match the new answers.</p>
7	F	2-3						X						E U E/S S	<p>264000K5.06, MEM 3.4/3.5, New WOOTF,</p> <p>The lesson plan states induction motor driven pumps would that have to be added to those distractors that needed it?</p> <p>Yes this is not just an SRO only question.</p> <p>TCK - Changed to WOOTF. Added motor driven pumps to distractor A to be consistent with other distractors. 5/31 Does it need to be replaced because it is too easy?</p> <p>June 19, 2002 (6:25AM), RSB, YES, it is too easy, it is not an SRO question will need to be replaced.</p> <p>TCK - Wrote new question. It is now a C/A question. 6/20</p> <p>June 24, 2002 (1:48PM), RSB, seem ok, not sure this is an SRO question, but it is better.</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
8	F	2-3												E	<p>295002AA2.02, MEM 3.2/3.3, New</p> <p>WOOTF</p> <p>Add degrees to distractor C . Done</p> <p>Place the name of the procedure in Parenthesis. Done.</p> <p>Not necessarily SRO only question. Why would the RO not be required to know this from the subsequent operator actions.</p> <p>Why is this an SRO memory level question of subsequent actions of the procedure. Does the facility expect the operators to have this in memory?</p> <p>June 19, 2002 (6:41AM), RSB, This question was not addressed by TCK</p> <p>TCK - Wrote new question. Changed to C/A. 6/20</p> <p>June 24, 2002 (1:52PM), RSB, not sure where you changed the question to a CA from a Memory level. Maybe on your bank. Not on the O drive.</p> <p>8/2/02 - Facility requested to change stem and answers from "Reactor Power" to "Generator Output".</p> <p>TCK - Denied change after discussing with the Facility. The Generator Output change is immediate but the Reactor Power follows. 8/5</p> <p>S 9/19/02 - Facility accepted resolution. TCK</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job-Link	Minutia	#/units	Back-ward	Q= K/A	SRO Only		
9	F	2-3												E	295006G2.2.22, MEM 3.4/4.1, New WOOTF, Why SRO Only? Do RO's not need to know this? KA does not match. Explain why it does? KA is the Knowledge of LCOs and safety limits, the question concerns itself with basis for scrams, TCK - Re-wrote question to meet K/A. This changed the question to C/A instead of Memory. 5/31 June 19, 2002 (6:42AM), RSB, I do not see any changes, looks like the same question to me. Discuss with TIM TCK - Believe the question was changed and I threw the old question away. Need to review question as it is now. 6/20 June 24, 2002 (1:53PM), RSB, ok as is. No change necessary 8/2/02 - Facility requested title change for I & C Techs and to provide copies of TS 3.3.1.1 and table 3.3.1.1-1. TCK - Changed as requested. Allow copy of TS 3.3.1.1 but not the table. 8/5 S 9/19/02 - Facility accepted resolution. TCK
10	H	3												E	295010AA2.06, C/A 3.6/3.6, Bank WOOTF Is Graph 8 going to be provided? If it is would that not eliminate that distractor. Did not look up the references need to understand where the answer comes from. TCK - Changed to WOOTF and revised distractors slightly. Ask licensee if need to provide copies of PC-1 and Graph 8. 5/31 June 19, 2002 (6:46AM), RSB, ok as changed, will ask licensee if we need to provide this info. But again it may eliminate one of the incorrect answers immediately. S

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
11	H	3												S	<p>295017G2.3.4, C/A 2.5/3.1, New</p> <p>change hurt to injured. Done</p> <p>SRO only ?? NOT sure it is.</p> <p>TCK - Made procedure name italics. Believe this is SRO level since it deals with Emergency Director responsibilities. 5/31</p> <p>June 19, 2002 (6:49AM), RSB, discuss with GH to see if he believes it is SRO only. I still do not believe it is.</p> <p>8/2/02 - Facility requested to provide a copy of 73EP-EIP-073-OS.</p> <p>TCK - Copy of procedure not provided. SRO should know what the lifesaving dose limits are. 8/5.</p> <p>9/19/02 - Facility accepted resolution. TCK</p>
12	H	3												S	<p>295025EA2.04, C/A 3.9/3.9, New</p> <p>WOOTF</p> <p>EXPECTED OR EXEMPTED??</p> <p>Otherwise ok</p> <p>TCK - Changed to WOOTF. Changed excepted to exempted. 5/31</p> <p>June 19, 2002 (6:51AM), RSB, ok as changed.</p> <p>8/2/02 - Facility requested U-2 PC-1 EOP to be provided.</p> <p>TCK - PC-1 not provided since this would then be a direct lookup. 8/5.</p> <p>9/19/02 - Facility accepted resolution. TCK</p> <p>10/4/02 - Facility requested adding "all of" in the stem to prevent having two correct answers.</p> <p>TCK - Revised distractor "B" to add another system that made the answer incorrect. 10/7</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
13	H	3												S	<p>295030EA2.01, C/A 4.1/4.2, New</p> <p>WOOTF</p> <p>Appears ok</p> <p>TCK - Changed to WOOTF. 5/31</p> <p>June 19, 2002 (6:51AM), RSB, ok as changed</p> <p>8/2/02 - Facility requested minor title change.</p> <p>TCK - Changed as requested. 8/5.</p> <p>9/19/02 - Facility accepted resolution. TCK</p>
14	H	3												E	<p>295031G2.4.4, C/A 4.0/4.3, New</p> <p>WOOTF</p> <p>Distractor D does not make sense to me. When do you have a SCRAM and NOT enter the EOPs? Is there a case that this happens?</p> <p>TCK - Changed to WOOTF. You do not enter the EOP's if you don't meet an entry condition. Every scram does not meet entry condition. 5/31</p> <p>June 19, 2002 (6:52AM), RSB, Is there a procedure that you go to then? If so put that in the distractor.</p> <p>TCK - Added Scram procedure to distractor D. 6/20</p> <p>June 24, 2002 (1:58PM), RSB, ok as changed.</p> <p>9/12 - Facility requested change to a misspelled word.</p>
														S	<p>TCK - Changed as requested and facility accepted resolution. 9/13</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
15	H	3												E	<p>295033G2.3.10, C/A 2.9/3.3, New</p> <p>in stem changed going up to increasing and changed causes to caused WOOTF</p> <p>in the stem, is it necessary to provide the Max Safe Operating values? Seems like they, SROs should know that information.</p> <p>TCK - Changed to WOOTF. Placed ORDER in the stem and revised all distractors for the action only. Left Max Safe values in the stem to make the distractor for blowdown more plausible. 5/31</p> <p>June 19, 2002 (6:53AM), RSB, ok, but do not agree with putting in the max safe values.</p> <p>8/2/02 - Facility requests minor title changes and copy of SCC EOP.</p> <p>TCK - Changed as requested and also provided SCC reference. 8/5.</p> <p>S 9/19/02 - Facility accepted resolution. TCK</p>
16	H	3												E	<p>295034EA2.02, C/A 3.7/4.2, New</p> <p>WOOTF</p> <p>Why SRO only? Seems generic to both RO and SRO.</p> <p>Distractor B is not plausible. Why would any pick a non radioactive system to cause a High Rad isolation? Needs to be changed.</p> <p>Distractor D under line the word NOT.</p> <p>June 19, 2002 (6:56AM), RSB, NOT address by TCK</p> <p>TCK - Changed to WOOTF and revised distractor B. Believe this is Sro due to analysis of situation. 6/20</p> <p>June 24, 2002 (2:06PM),RSB, ok as changed. Will ask licensee if is SRO only.</p> <p>8/2/02 - Facility requested minor equipment name change.</p> <p>TCK - Changed as requested. 8/5</p> <p>S 9/19/02 - Facility accepted resolution. TCK</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
17	H	3												E	<p>295035G2.1.7, C/A 3.7/4.4, New</p> <p>The answer requires damage to have occurred. How do you get that from the stem. Additionally, the tornado should be > 100 mph to determine that answer, how do they get this?</p> <p>Discuss with TIM</p> <p>WOOTF</p> <p>Seems like you have to provide Eplan and EOPs to get the answer. You don't expect them to answer from memory do you?</p> <p>TCK - changed to WOOTF. Added wind speed to stem. The reactor bldg siding is loose in the stem should indicate damage caused by the tornado. Should be able to answer from memory. 5/31</p> <p>June 19, 2002 (6:58AM), RSB, ok, will see what the licensee has to say.</p> <p>8/2/02 - Facility requested minor title change and to re-order the actions in each answer so that the declaration is made first. Also requested copy of 73EP-EIP-001-OS.</p> <p>TCK - Changed as requested and provided copy of procedure. 8/5.</p> <p>9/12 - Facility requested rewording stem to indicate that Inside Rounds SO discovers air leaking into containment and pointed out that loss of containment is a 4 hr action per Tech Specs.</p> <p>TCK - Changed as requested except added that air was noticed to be rushing "in and out" since the containment is broke. Facility accepted resolution. 9/13</p> <p>10/4/02 - Facility requested deleting the TS actions due to not reasonable to memorize to this level.</p> <p>TCK - Reference is provided that could lead to the correct answer since only one answer identifies the event as a site emergency. SRO should know the TS requirements for loss of secondary containment.. Left question as-is and facility agreed. 10/7</p>
18														S	<p>G2.1.22, C/A 2.8/3.3, Modified</p> <p>June 19, 2002 (7:07AM), RSB, ok, no TS's provided</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
19	F	2-3												S	<p>G2.1.4, MEM 2.3/3.4, Bank</p> <p>Appears to be ok.</p> <p>Provide TS's? If provided may be a direct look up.</p> <p>TCK - Will provide Tech Spec section. It doesn't talk about SRO for fuel handling activities. 5/31</p> <p>June 19, 2002 (7:06AM), RSB, OK as is</p>
20	H	2-3												E	<p>G2.2.27, C/A 2.6/3.5, New</p> <p>WOOTF</p> <p>The question as it is seems ok. Why don't we make A the answer, that is not as obvious. Make A's first part and then correct it to have the correct actions. That way the SRO will have to think a bit.</p> <p>Not sure why this is SRO only.</p> <p>Do not agree with level of difficulty, more of a memory level question.</p> <p>TCK - Changed to WOOTF. Changed answer so that A is correct as suggested. Believe question is C/A since the SRO must understand that continuing on with fuel moves is not correct and must recognize the correct action to take. 5/31</p> <p>June 19, 2002 (7:08AM), RSB, ok as changed.</p> <p>8/2/02 - Facility requested additional info for the answer which says that the orientation error was corrected.</p> <p>TCK - Changed as requested and also changed other distractors in regards to fuel orientation. 8/5.</p> <p>S</p> <p>9/19/02 - Facility accepted resolution. TCK</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
21	M	3												E S	<p>G2.2.32, 2.3/3.3, NO source provided. Not sure what category it is. Also no LOK provided.</p> <p>WOOTF</p> <p>Not so sure that C is not a correct answer. Need to evaluate if it is truly incorrect. Discuss.</p> <p>Why SRO only?</p> <p>TCK - Changed to WOOTF. Answer C is not an option per the procedure. SRO only because this is an action the SRO is responsible for. 5/31</p> <p>June 19, 2002 (7:10AM), RSB, ok as changed.</p>
22	F	2-3												S E S	<p>G2.2.6, MEM 2.3/3.3, Bank</p> <p>OK as is</p> <p>SRO only??</p> <p>TCK - Re worded the stem slightly. 5/31</p> <p>June 19, 2002 (7:13AM), RSB, Why is A not correct, it says the SS should? Discuss.</p> <p>TCK - Answer A is not correct since this process is used for an editorial change only. This change is not editorial. 9/19</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
23	H	3												E	<p>G2.3.3, C/A 1.8/2.9, New</p> <p>WOOTF</p> <p>TS's provided? Should be. Will that be a direct look up then?</p> <p>TCK - Changed to WOOTF. Tech Specs not provided since this condition would be required to be recognized on shift. 5/31</p> <p>June 19, 2002 (7:14AM), RSB, ok as changed.</p> <p>8/2/02 - Facility requested copy of TS 3.7.6 to be provided.</p> <p>TCK - Provided copy of TS as requested. 8/5.</p> <p>9/12 - Facility requested cahnging answers to delete "at least" in all answers and to delete surveillance grace period time.</p> <p>TCK - Changed as requested due to inappropriate use of grace period. Changed answer A to isolate SJAE... as requested by facility and facility accepted resolution. 9/14/02</p>
24	F	2-3												S	<p>G2.3.4, MEM 2.5/3.1, Bank</p> <p>Appears ok</p> <p>TCK - Changed to WOOTF. 5/31</p> <p>June 19, 2002 (7:15AM), RSB, ok as changed.</p>
25														S	<p>2.4.48, C/A 3.5/3.8, New</p> <p>June 19, 2002 (7:16AM), RSB, ok as is</p> <p>9/12 - Facility requested question revised to 30% oscillations since this would be a reason that SBLC was already initiated. Remove indication of SBLC continuity alarm. Revise answers accordingly.</p> <p>TCK - Revised as requested and facility accepted resolution. 9/14</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
1	H	3												S	<p>201001G2.1.28, KA 3.2/3.3</p> <p>Used on the last exam how can it be characterized as NEW?</p> <p>Appears to be ok.</p> <p>Why do they need the attached reference?</p> <p>TCK - Changed to Bank question. Drawing is provided without labels to help diagnose problem. 6/3</p> <p>June 19, 2002 (1:02PM), RSB, ok as changed</p> <p>9/12 - Facility requested change to unit and component designator.</p> <p>TCK - Changed as requested. Does not change intent of question and facility accepted resolution. 9/14</p>
2	F	3				X								E	<p>201001K2.02, 3.6*/3.7, Bank</p> <p>The stem of the question has to be placed in the Which one of the Following (WOOTF) format. Should read:</p> <p>Unit 1 is operating at 100% RTP, WOOTF represents the expected response of the Scram Pilot Solenoid Valves and the Backup Valves due to a loss of RPS "A."</p> <p>All the distractors except C the second part state de-energized. Need to make one the second part de-energized. I believe this would make this better.</p> <p>TCK - Changed to WOOTF as suggested. Revised distractor C as suggested. 6/3</p>
														S	<p>June 19, 2002 (1:16PM), RSB, Ok as changed.</p>
3	H	3												S	<p>204000K5.04, Bank, 2.7/2.7, Bank.</p> <p>Question appears to be ok.</p> <p>TCK - Capitalized ONE. 6/3</p> <p>June 19, 2002 (1:48PM), RSB, ok as changed.</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
4	H	3												S	<p>205000K3.04, Bank 3.7/3.7</p> <p>Added the word degrees to the initial conditions. Otherwise appears to be ok.</p> <p>TCK - Changed to WOOTF. 6/3</p> <p>June 19, 2002 (1:50PM), RSB, ok as changed.</p> <p>8/2/02 - Facility requested clarification for answers C and D so it was clear that forced circulation through the core is diminished.</p> <p>TCK - Made minor editorial change to stem and revised answers C and D as requested. 8/7.</p> <p>9/19/02 - Facility accepted resolution. TCK</p> <p>10/4/02 - Facility requested stem to indicate that RWL was indicated level and to change "loss of forced circulation" to "inadequate circulation".</p> <p>TCK - Changed as requested. 10/7</p>
5	H	3												E	<p>206000A2.16, New, 4.0/4.1, TCK</p> <p>May need to add the noun name for the procedure 34-SO-E41-001-2S, Are they required to know this information? Probably not. Even though they will.</p> <p>Should add to the stem WOOTF. To make it standardized.</p> <p>WOOTF is the appropriate operator action(s) for the opearator to take with regards to the HPCI system.</p> <p>Add degrees to the stem.</p> <p>TCK - Changed to WOOTF. All operators need to know that they have to manually start equipment if it doesn't start on an auto start signal. 6/3</p>
														S	<p>June 19, 2002 (1:51PM), RSB, ok</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
6	H	3												E	<p>209001G2.4.31, C/A 3.3/3.4, New, No source listed.</p> <p>Bullets may work better.</p> <p>Unit 1 is in Mode 4, maintenance is being conducted that has the potential to drain....</p> <p>WOOTF actions should be taken with regards to the "A" Spray Pump?</p> <p>TCK - Changed to WOOTF. Left stem as is without bullets. 6/3</p> <p>June 20, 2002 (7:00AM), RSB, OK as changed.</p> <p>9/18/02 - Facility requested stem be changed to say the "A" Core Spray is the only pump running. Didn't want the operators to be confused as to whether "B" pumps were available.</p> <p>TCK - Added words to stem that say "B" pumps are out of service due to an outage. Facility accepted resolution. 9/19.</p> <p>10/4/02 - Facility requested adding more information to the stem that indicates a pump may not trip when the alarm actuates.</p>
														S	<p>TCK - Added cause from ARP in the form of a note in the stem. 10/7</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
7	F	2												E	<p>209001K5.06, C/A 3.7/4.0, New</p> <p>Disagree with the level of knowledge, believe this is more a knowledge level question.</p> <p>Stem could be better written. Need to add an underline under the words, actual and capitalize close at the end of the sentence.</p> <p>Need to also add WOOTF.</p> <p>WOOTF is the ACTUAL total pump flow (in gpm) when the minimum flow valve (FO31) gets a CLOSE signal?</p> <p>TCK - Changed to WOOTF. Reworded stem to make it flow better. Capitalized CLOSE. Believe it is C/A since the operator must know what the pump flows are and must know to add the 2 values together. 6/3</p> <p>June 20, 2002 (7:01AM), RSB, ok as changed, ok to level of knowledge.</p> <p>9/18/02 - Facility proposed new question due to KA is plant specific to BWR 1. Hatch is BWR 4. Change KA from K5.06 to K5.01.</p> <p>TCK - Replaced question with proposed question. Facility accepted resolution. 9/18</p>
8	H	3												E	<p>212000A3.05, C/A 3.9/3.9, New, TCK</p> <p>The question is not clear as to the status of the test. Do we need to add some words as to where they are? Do we need to the stem the procedure? Would it be better if we changed the words ...signed off... to signed accomplished.</p> <p>Add to C and D the word received after signal.</p> <p>TCK - Changed to WOOTF. Added received to C and D. Revised stem to make it clear that the test was not performed. 6/3</p>
														S	<p>June 20, 2002 (7:03AM), RSB, ok as changed.</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
9	F	2-3												E	<p>215002G2.1.23, MEM, Bank, 3.9/4.0,</p> <p>The distractors can be shortened. The first sentence can be put in the stem.</p> <p>Need to WOOTF to the stem.</p> <p>The question's distractors actually concern themselves with the Recorder. The Stem does not really discuss the recorder. Do we need to add to the stem about the recorder.</p> <p>TCK - Changed to WOOTF. Removed first sentence and placed in the stem. 6/3</p> <p>June 20, 2002 (7:05AM), RSB, ok as changed, also, removed the word best from the stem.</p>
10	F	2-3												E	<p>215003A4.05, C/A 3.4/3.4, New, TCK</p> <p>Distractors A and B point the person to IRM F. I don't believe that we have to put that in the distractor. That way we don't point to that particular IRM.</p> <p>WOOTF.</p> <p>Low level CA real close to a Memory</p> <p>TCK - Changed to WOOTF. Removed specific IRM from the distractors. 6/3</p>
														S	<p>June 20, 2002 (7:08AM), RSB, ok as changed</p>
11	F	2-3												S	<p>215004K2.01, MEM 2.6/2.8, New, TCK</p> <p>The question appears ok, however, the KA concerns itself with Knowledge of electrical power supplies to the following: SRM channels/detectors. The first three bullets concern themselves with Radiation monitors. This does not fully support the KA. It may be ok.</p> <p>TCK - Changed to WOOTF. Believe it meets the K/A since the power supply failure affects the SRM's. 6/3</p> <p>June 20, 2002 (7:10AM), RSB, ok as is.</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
12	H	3												E	<p>239002K6.05, C/A 2.7/3.0, New, TCK</p> <p>Change the stem to read more clearly, something like</p> <p>A Vacuum breaker failed in the "OPEN" position</p> <p>WOOTF describes the effect on containment and the Safety Relief Valves if a relief valve lifts?</p> <p>TCK - Changed to WOOTF. Reworded stem to make it clear as to which relief valve lifts. 6/3</p>
														S	<p>June 20, 2002 (7:11AM), RSB, ok as changed.</p>
13	H	3				X								E	<p>256000K1.05, C/A 3.1/3.1, Bank</p> <p>Stem needs to be re-written to meet standard.</p> <p>Unit 2 is operating at 80% RTP. WOOTF describes the plant response if an operator opens the Unit 2 Condensate?</p> <p>Distractor B does not make much sense to me. Talk to Tim about it.</p> <p>TCK - Changed to WOOTF. Added that the valve is opened inadvertently. Removed available from distractor B. 6/3</p>
														S	<p>June 20, 2002 (7:13AM), RSB, ok as changed.</p>
14	M	2-3				X								E	<p>259001K1.05, MEM 3.2/3.2, New</p> <p>Stem needs to use WOOTF.</p> <p>The answer C, does not incorporate Condensate pumps, did you not put these in for a reason. It would not be a totally correct answer without these listed. Ask Tim.</p> <p>TCK - Changed to WOOTF. Revised distractor C to include Condensate Pumps. 6/3</p>
														S	<p>June 20, 2002 (7:18AM), RSB, ok as changed.</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
15	H	3												E	<p>264000A1.01, C/A 3.0/3.0, New,</p> <p>Change stem to use WOOTF.</p> <p>Not sure if they expect the applicants to know the DG should have tripped 1 degree after the setpoint. If may make it more palatable if we make it 240 degrees. Discuss</p> <p>Low level C/A</p> <p>Stem could be a little clearer, DG is running an loaded <u>onto</u> the bus</p> <p>TCK - Changed to WOOTF. Reworded stem slightly to say that the diesel is tied to the bus. 6/3</p> <p>June 20, 2002 (7:20AM), RSB, ok as changed</p> <p>10/4/02 - Facility requested oil pressure trip setpoint be changed to 22 psig from 20 psig due to procedure change.</p>
														S	<p>TCK - Changed as requested since setpoint changed. 10/7</p>
16	H	3												E	<p>264000K3.01, C/A 4.2/4.4, Bank</p> <p>The KA states Knowledge of the effect that a loss or malfunction of the EMERGENCY GENERATORS (DIESEL/JET) will have on the following: Emergency Core Cooling System.</p> <p>I do not believe the question matches the KA. Discuss.</p> <p>Change stem to add WOOTF. Not sure the question illicit the answer.</p> <p>TCK - Changed to WOOTF. Reworded question to account for a failure of a D/G to start to meet the K/A. Changed the question from Bank to Modified. 6/3</p> <p>June 20, 2002 (7:23AM), RSB, ok as changed, now it meets the KA</p> <p>8/2/02 - Facility requested clarification for the 25 second timeframe.</p> <p>TCK - Revised stem to clarify that the 25 seconds is from the initiation signal to the EDG's. 8/7</p>
														S	<p>9/19/02 - Facility accepted resolution. TCK</p>

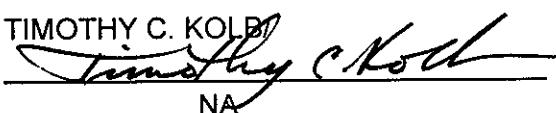
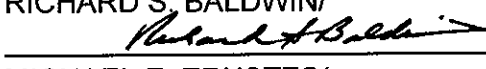

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
17	M	2-3												E	<p>271000K4.08, MEM 3.1/3.3, Modified</p> <p>KA ok WOOTF The valves in the stem, are they unit 1 or 2?</p> <p>Next time attach the original question.</p> <p>TCK - Changed to WOOTF. Placed the Unit in the first part of the stem. 6/3</p> <p>S June 20, 2002 (7:26AM), RSB, ok as changed.</p>
18	F	3				X								E	<p>295002G2.1.2, MEM 3.0/4.0, Bank</p> <p>KA ok Distractor D does not appear plausible. Why would you isolate feed. If we keep this distractor need to add degrees prior to F.</p> <p>Otherwise appears ok.</p> <p>TCK - Changed to WOOTF. Kept distractor D as-is since there is direction in the loss of Circ Water procedure to bypass the demins if Condensate Temp exceeds 140 F. 6/3</p> <p>June 20, 2002 (7:26AM), RSB, ok as changed.</p> <p>8/2/02 - Facility requested changing the conditions in the stem from 800 Mwe to 550 Mwe since losing a Circ Pump at 800 Mwe would scram the unit.</p> <p>TCK - Changed as requested. 8/7</p> <p>S 9/19/02 - Facility accepted resolution. TCK</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
19	H	3												E	<p>295010AA2.02, C/A 3.8/3.9, New</p> <p>KA? Not sure it matches that close. Could also be ??</p> <p>Add WOOTF</p> <p>Are we going to have to provide PC-1, it seems that this information may be SRO knowledge vice RO. Discuss.</p> <p>TCK - Changed to WOOTF. Rewrote question to match the K/A. 6/3</p> <p>June 20, 2002 (7:29AM), RSB, the question a reason for the should or should not, do we have to put that in the stem. SHOULD or SHOULD NOT be in operation and the reason for that? So it seems that now you do not need the procedure to answer this question.</p> <p>TCK - Changed the question slightly to remove SHOULD and SHOULD NOT from the stem. Do not need to provide PC-1, RO's should know. 6/20</p>
														S	<p>June 24, 2002 (2:09PM), RSB, ok as changed.</p>
20	H	3				X								E	<p>295020G2.1.20, C/A 4.2/3.9, NEW</p> <p>CBO, is this Hatch terminology. Not sure, have to ask facility. WOOTF</p> <p>Are the Ros supposed to know this knowledge? ARPs without immediate operator actions are not normally required for memorization. Will need to ask the facility.</p> <p>The answer does not state anything about stopping the surveillance. That would most likely make the answer more correct. Would this be necessary to do?</p> <p>Not sure I agree with the level of knowledge. I believe it is memory.</p> <p>TCK - Changed to WOOTF. Revised the answer to include that Shift Supervisor stops the surveillance. CBO is Hatch terminology . 6/3</p> <p>June 20, 2002 (8:38AM), ok as changed.</p> <p>8/2/02 - Facility requested minor title changes in stem and answers.</p> <p>TCK - Changed IM's to I&C. 8/7.</p>
														S	<p>9/19/02 - Facility accepted resolution. TCK</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
21	H	3				X								E	<p>300000K6.12, C/A 2.9/2.9, New,</p> <p>WOOTF</p> <p>Not sure that B and C are that much different. Need to replace one of them. The same thought process occurs to eliminate either one.</p> <p>Is D correct or do they have more times to operate with nitrogen? I realize that they are isolated but what is the actual cycle amount. Use that vice 1</p> <p>TCK - Changed to WOOTF. Moved distractor C to Distractor D. Revised distractor C for clarity. 6/3</p> <p>S June 20, 2002 (8:40AM), RSB, ok as changed.</p> <p>10/4/02 - Facility states that question is difficult in that it requires evaluating condition of nitrogen backup.</p> <p>TCK - discussed with facility and the question is technically accurate and meets the K/A. Agreed to leave as is. 10/7</p>
22	F	2	X											E	<p>G2.1.10, MEM 2.7/3.9, Bank</p> <p>KA ok</p> <p>Reword WOOTF is the maximum power level authorized for UNIT 2 operation IAW the current Facility Operating License No. NPF-5?</p> <p>It may be better to say iaw TS.</p> <p>Both units are the same thermal power, how did you get the other thermal power level?</p> <p>TCK - Changed to WOOTF. Left the numbers the same from the bank. 6/3</p> <p>S June 20, 2002 (9:53AM), RSB, ok as changed.</p>

Q#	1. LOK (F/H)	2. LOD (1-5)	3. Psychometric Flaws					4. Job Content Flaws				5. Other		6. U/E/S	7. Explanation
			Stem Focus	Cues	T/F	Cred. Dist.	Partial	Job- Link	Minutia	#/ units	Back- ward	Q= K/A	SRO Only		
23	H	3												E	<p>G2.1.2, C/A 3.0/4.0, New</p> <p>Not sure this is RO required memorization material Need to discuss with licensee to see if it is appropriate required knowledge.</p> <p>WOOTF</p> <p>TCK - Changed to WOOTF.</p> <p>June 20, 2002 (9:54AM), RSB, OK as changed. Will let the licensee determine if this is RO knowledge.</p> <p>8/2/02 - Facility requested correct answer be revised to delete portion that is no longer performed by RO.</p> <p>TCK - Changed as requested and reordered answers. 8/7</p> <p>S 9/19/02 - Facility accepted resolution. TCK</p>
24	F	3												E	<p>G2.2.13, MEM 3.6/3.8, Bank</p> <p>WOOTF</p> <p>Not sure this is RO knowledge requirement. Need to ask licensee.</p> <p>Used as an SRO question before.,</p> <p>What does TDO stand for?</p> <p>TCK - Changed to WOOTF. TDO stands for Tagout Desk Operator. 6/3</p> <p>June 20, 2002 (9:55AM), RSB, ok as changed, Will let the licensee determine if RO knowledge.</p> <p>S</p>
25														S	<p>G2.2.3, MEM 3.1/3.3, New,</p> <p>June 20, 2002 (9:57AM), RSB, changed the wording of the stem slightly, appears to be ok.</p> <p>9/12/02 - Facility requested "and" located after safe Shutdown Panel to be capitalized and underlined.</p> <p>TCK - Changed as requested and facility accepted resolution. 9/14</p>

Facility: E.I. HATCH		Date of Exam: 10/30/02		Exam Level: RO/SRO	
Item Description	Initials				
	a	b	c		
1. Clean answer sheets copied before grading	<i>TM</i>	NA	<i>MS</i>		
2. Answer key changes and question deletions justified and documented	<i>TM</i>		<i>MS</i>		
3. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	<i>TM</i>		<i>MS</i>		
4. Grading for all borderline cases (80% +/- 2%) reviewed in detail	<i>TM</i>		<i>MS</i>		
5. All other failing examinations checked to ensure that grades are justified	<i>TM</i>		<i>MS</i>		
6. Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	<i>TM</i>	<i>Y</i>	<i>MS</i>		
Printed Name / Signature		Date			
a. Grader	TIMOTHY C. KOLB/ <i>Timothy C. Kolb</i>	<i>11-26-02</i>			
b. Facility Reviewer(*)	NA				
c. NRC Chief Examiner (*)	RICHARD S. BALDWIN/ <i>Richard S. Baldwin</i>	<i>11-26-02</i>			
d. NRC Supervisor (*)	MICHAEL E. ERNSTES/ <i>Michael E. Ernest</i>	<i>11/26/02</i>			
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.					

Facility: E.I. HATCH		Date of Exam: 10/30/02		Exam Level: RO/SRO	
Item Description	Initials				
	a	b	c		
1. Clean answer sheets copied before grading	TMC	NA	RSB		
2. Answer key changes and question deletions justified and documented	TMC		RSB		
3. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	TMC		RSB		
4. Grading for all borderline cases (80% +/- 2%) reviewed in detail	TMC		RSB		
5. All other failing examinations checked to ensure that grades are justified	TMC		RSB		
6. Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	TMC	✓	RSB		
Printed Name / Signature		Date			
a. Grader	TIMOTHY C. KOLB  NA	11-26-02			
b. Facility Reviewer(*)					
c. NRC Chief Examiner (*)	RICHARD S. BALDWIN/ 	11-26-02			
d. NRC Supervisor (*)	MICHAEL E. ERNSTES/ 	11/26/02			
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.					

Hatch		October 2002
Task Description		Date Complete
1.	Facility written exam comments or graded exams received and verified complete	11/07/02
2.	Facility written exam comments reviewed and incorporated and NRC grading completed, if necessary	11/14/02
3.	Operating tests graded by NRC examiners	11/28/02
4.	NRC Chief examiner review of written exam and operating test grading completed	12/02/02
5.	Responsible supervisor review completed	1/9/03
6.	Management (licensing official) review completed	1/9/03
7.	License and denial letters mailed	1/16/03
8.	Facility notified of results	1/16/03
9.	Examination report issued (refer to NRC MC 0610)	1/9/03
10.	Reference material returned after final resolution of any appeals	N/A