

**2009 PERRY NUCLEAR POWER PLANT**

**INITIAL EXAMINATION**

**ADMINISTRATIVE FILES**

Facility: Perry

Date of Examination: Jan 2009

Developed by: Written - Facility  NRC  // Operating - Facility  NRC

Target Date*	Task Description (Reference)	Chief Examiner's Initials
-180	1. Examination administration date confirmed (C.1.a; C.2.a and b)	RKW
-120	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	RKW
-120	3. Facility contact briefed on security and other requirements (C.2.c)	RKW
-120	4. Corporate notification letter sent (C.2.d)	RKW
[-90]	[5. Reference material due (C.1.e; C.3.c; Attachment 3)]	RKW MA
{-75}	6. Integrated examination outline(s) due, including Forms ES-201-2, ES-201-3, ES-301-1, ES-301-2, ES-301-5, ES-D-1's, ES-401-1/2, ES-401-3, and ES-401-4, as applicable (C.1.e and f; C.3.d)	RKW
{-70}	{7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)}	RKW
{-45}	8. Proposed examinations (including written, walk-through JPMs, and scenarios, as applicable), supporting documentation (including Forms ES-301-3, ES-301-4, ES-301-5, ES-301-6, and ES-401-6, and any Form ES-201-3 updates), and reference materials due (C.1.e, f, g and h; C.3.d)	RKW
-30	9. Preliminary license applications (NRC Form 398's) due (C.1.i; C.2.g; ES-202)	RKW
-14	10. Final license applications due and Form ES-201-4 prepared (C.1.i; C.2.i; ES-202)	RKW
-14	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	RKW
-14	12. Examinations reviewed with facility licensee (C.1.j; C.2.f and h; C.3.g)	RKW
-7	13. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	RKW
-7	14. Final applications reviewed; 1 or 2 (if >10) applications audited to confirm qualifications / eligibility; and examination approval and waiver letters sent (C.2.i; Attachment 5; ES-202, C.2.e; ES-204)	RKW
-7	15. Proctoring/written exam administration guidelines reviewed with facility licensee (C.3.k)	RKW
-7	16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	RKW

\* Target dates are generally based on facility-prepared examinations and are keyed to the examination date identified in the corporate notification letter. They are for planning purposes and may be adjusted on a case-by-case basis in coordination with the facility licensee.  
 [Applies only] {Does not apply} to examinations prepared by the NRC.

Enclosure F  
L-08-330

Form ES-201-3, Examination Security Agreement

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 1-12/19-2009 as of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to instruct, evaluate, or provide performance feedback to those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration, except as specifically noted below and authorized by the NRC (e.g., acting as a simulator booth operator or communicator is acceptable if the individual does not select the training content or provide direct or indirect feedback). Furthermore, I am aware of the physical security measures and requirements (as documented in the facility licensee's procedures) and understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

2. Post-Examination

To the best of my knowledge, I did not divulge to any unauthorized persons any information concerning the NRC licensing examinations administered during the week(s) of 1/12-1/19/09. From the date that I entered into this security agreement until the completion of examination administration, I did not instruct, evaluate, or provide performance feedback to those applicants who were administered these licensing examinations, except as specifically noted below and authorized by the NRC.

PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE NOTE
1. <u>Daniel Zielinski</u>	LEAD EXAM WRITER	<i>[Signature]</i>	2-25-2008	<i>[Signature]</i>	1-22-2009
2. <u>Raymond J. Toney</u>	EXAM WRITER	<i>[Signature]</i>	3-17-08	<i>[Signature]</i>	1-22-09
3. <u>James N. Chavez</u>	EXAM WRITER w/E	<i>[Signature]</i>	4/10/08	<i>[Signature]</i>	1/26/09
4. <u>Cynthia L. Miklacz</u>	Simulator Support	<i>[Signature]</i>	5-16-08	<i>[Signature]</i>	1-22-09
5. <u>Clifford G. Jones III</u>	Reactor Operator	<i>[Signature]</i>	8/11/08	<i>[Signature]</i>	2/2/09
6. <u>Jason D. Weeks</u>	Reactor Operator	<i>[Signature]</i>	8/11/08	<i>[Signature]</i>	1-24-09
7. <u>Steven Benedict</u>	Supervisor - Validation Team	<i>[Signature]</i>	8-11-08	<i>[Signature]</i>	1-23-09
8. <u>David W. O'Donnell</u>	Shift Manager / Facility Reviewer	<i>[Signature]</i>	8-18-08	<i>[Signature]</i>	1-27-09
9. <u>Michael Patez</u>	Shift Engineer SRO	<i>[Signature]</i>	8/22/08	<i>[Signature]</i>	1/23/09
10. <u>Michael H. McCullough III</u>	REACTOR OPERATOR	<i>[Signature]</i>	8-22-08	<i>[Signature]</i>	2/2/9
11. <u>PAUL M. GODA</u>	OPS REACTOR OPERATOR	<i>[Signature]</i>	10-13-08	<i>[Signature]</i>	1/26/09
12. <u>James D. Klostman</u>	Shift Engineer / SRO	<i>[Signature]</i>	10/12/08	SEE FAX	SEE FAX
13. <u>Jim Case</u>	SHIFT MANAGER	<i>[Signature]</i>	10/13/08	<i>[Signature]</i>	1-27-09
14. <u>Stephen J. Kapostasy</u>	Shift Engineer	<i>[Signature]</i>	10/20/08	<i>[Signature]</i>	1/28/09
15. <u>Anthony Weston</u>	REACTOR OPERATOR	<i>[Signature]</i>	10/29/08	<i>[Signature]</i>	1/26/09

NOTES:

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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 1/20-21/09. From the date that I entered into this security agreement until the completion of examination administration, I did not instruct, evaluate, or provide performance feedback to those applicants who were administered these licensing examinations, except as specifically noted below and authorized by the NRC.

PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE NOTE
1. <u>DL ZIELINSKI</u>	LEAD EXAM WRITER	<u>[Signature]</u>	2-25-2009	<u>[Signature]</u>	1-20-2009
2. <u>Raymond J. Gansz</u>	EXAM WRITER	<u>[Signature]</u>	3-17-08	<u>[Signature]</u>	1-22-09
3. <u>APLOS N. CHAVEZ</u>	EXAM WRITER 4/E	<u>[Signature]</u>	4/16/18	<u>[Signature]</u>	1/26/09
4. <u>CYNTHIA L. MIKLECK</u>	SIMULATOR SUPPORT	<u>[Signature]</u>	5-16-08	<u>[Signature]</u>	1-22-09
5. <u>Christina L. Sands, JR.</u>	Reactor Operator	<u>[Signature]</u>	8/1/08		
6. <u>Jason D. Weeks</u>	Reactor Operator	<u>[Signature]</u>	8/1/08		
7. <u>Soren Benedict</u>	Superintendent - Validation Team	<u>[Signature]</u>	8/11/08	<u>[Signature]</u>	1-23-09
8. <u>David W. O'Donnell</u>	Shift Manager / Facility Renewal	<u>[Signature]</u>	8-18-08	<u>[Signature]</u>	1-27-09
9. <u>Michael Lutz</u>	Shift Manager SRO	<u>[Signature]</u>	8/22/08	<u>[Signature]</u>	1/22/09
10. <u>Michael H. McCullough</u>	Reactor Operator	<u>[Signature]</u>	8-22-08		
11. <u>Paul M. Gansz</u>	QPS REACTOR OPERATOR	<u>[Signature]</u>	10-13-08	<u>[Signature]</u>	1-26-09
12. <u>James D. Kharstomian</u>	Shift Engineer / SRO	<u>[Signature]</u>	10/12/08	<u>[Signature]</u>	1/30/09
13. <u>Jim Case</u>	SHIFT MANAGER	<u>[Signature]</u>	1-23-08	<u>[Signature]</u>	1-27-09
14. <u>Stephen J. Kapostany</u>	Shift Engineer	<u>[Signature]</u>	10/20/08	<u>[Signature]</u>	1/28/09
15. <u>Anthony Weston</u>	REACTOR OPERATOR	<u>[Signature]</u>	10-21-08	<u>[Signature]</u>	1/26/09

NOTES:

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 1/12 + 1/19/2009 as of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to instruct, evaluate, or provide performance feedback to those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration, except as specifically noted below and authorized by the NRC (e.g., acting as a simulator booth operator or communicator is acceptable if the individual does not select the training content or provide direct or indirect feedback). Furthermore, I am aware of the physical security measures and requirements (as documented in the facility licensee's procedures) and understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

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PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE NOTE
1. Dale Ruttman	Simulator Lead	<i>[Signature]</i>	12/11/08	<i>[Signature]</i>	1/20/09
2. CLINTEN WEIRICH	CONTRACTOR	<i>[Signature]</i>	12/11/08	<i>[Signature]</i>	1/23/09
3. James A. Gerber	SIMULATOR SUPPORT	<i>[Signature]</i>	12/11/08	<i>[Signature]</i>	1-22-09
4. Lane A. Bump	Reactor Operator	<i>[Signature]</i>	12/15/08	<i>[Signature]</i>	2/4/09
5. FREDERICK W SMITH	EMERGENCY RESPONSE MANAGER	<i>[Signature]</i>	12/17/08	<i>[Signature]</i>	1/26/09
6. JAMES E AGNEW	INSTRUCTOR	<i>[Signature]</i>	1/12/09	<i>[Signature]</i>	1/22/09
7. Sidney W. Morgan	Instructor	<i>[Signature]</i>	1/13/09	<i>[Signature]</i>	1/16/09
8. Michael A. McFarland	Instructor	<i>[Signature]</i>	1/16/09	<i>[Signature]</i>	1/22/09
9.					
10.					
11.					
12.	NA			NA	
13.					
14.					
15.					

NOTES:

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	PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE NOTE
1.	<u>Paul K Hetrick</u>	<u>SRO/us/Crew 3 us</u>	<u>Paul K Hetrick</u>	<u>10/29/08</u>	<u>Paul K Hetrick</u>	<u>1/22/09</u>
2.	<u>Daniel E. Stanley</u>	<u>Control Room Unit Supervisor</u>	<u>Dan Stanley</u>	<u>10-29-08</u>	<u>Dan Stanley</u>	<u>1-27-09</u>
3.	<u>D. O. 1-17</u>					
4.						
5.						
6.						
7.						
8.						
9.		<u>NA</u>				<u>NA</u>
10.						
11.						
12.						
13.						
14.						
15.						

NOTES:

Enclosure J  
L-08-0275

Form ES-401-4  
Record of Rejected K/As (BWR RO and SRO Examination)

Tier / Group	Randomly Selected K/A	Reason for Rejection
1/1 RO	295019 AK1	Selected K/A was AK1, no K and A's listed under AK1. Randomly selected K/A AK2.18
1/1 RO	295024 EA1.12	Selected K&A was Suppression Pool Spray, not applicable to Perry. Randomly selected EA1.20.
1/1 RO	2095030 EK3.02	Selected K&A was HPCI operation, not applicable to Perry. Randomly selected K&A EK3.03.
2/1 RO	261000 K3.04	Selected K&A was HPCI system, not applicable to Perry. Randomly selected K&A K3.02.
2/1 RO	262002 K5	Selected K&A had no values greater than 2.5. Randomly selected K&A A3.01 Transfer from preferred to alternate source.
2/2 RO	201001 K5.09	Selected K&A less than 2.5 randomly selected K&A K5.08.
2/2 RO	259001 K1.21	Selected K&A less than 2.5 randomly selected K&A K1.20.
2/2 RO	271000 K2	Selected K&A had no values greater than 2.5 randomly selected K&A A4.09.
2/1 SRO	212000 A2.17	Selected K and A was main steamline high radiation, not applicable at Perry. Randomly selected A2.15.
3 RO	2.4.11	2.4.11 was selected for tier 1 group 1 for RO and in addition 2.4.31 was selected for the RO test. High area coverage for procedure knowledge, randomly selected 2.4.39 Knowledge of RO responsibilities in emergency plan implementation.
2/1 SRO	259002 A2.05	Selected K&A was duplicate of K&A on RO exam 259001 K1.06. Randomly selected A2.03.
1/1 SRO	295026 2.4.3	Selected K&A was had high area coverage due to RO question 23 and SRO question 3. Randomly selected 600000 2.1.25.

Facility: <u>PERRY</u>		Date of Exam: <u>1/21/2009</u>		Exam Level: RO <input checked="" type="checkbox"/> SRO <input checked="" type="checkbox"/>	
Item Description	Initials				
	a	b	c		
1. Clean answer sheets copied before grading	DZ	RL	RW		
2. Answer key changes and question deletions justified and documented	NA <sub>OL</sub>	N/A	RW		
3. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	DZ	RL	RW		
4. Grading for all borderline cases (80 ±2% overall and 70 or 80, as applicable, ±4% on the SRO-only) reviewed in detail	DZ	RL	RW		
5. All other failing examinations checked to ensure that grades are justified	DZ	RL	RW		
6. Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	DZ	RL	RW		
Printed Name/Signature		Date			
a. Grader	<u>Dk Zielinski / Dk Zielinski</u>	<u>1-28-2009</u>			
b. Facility Reviewer(*)	<u>P.W. O'Donnell / [Signature]</u>	<u>1-28-09</u>			
c. NRC Chief Examiner (*)	<u>Royal Kurt Walter</u>	<u>7/20/2009</u> *			
d. NRC Supervisor (*)	<u>Aronson Peterson / [Signature]</u>	<u>11/12/09</u> *			
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.					

\*  
area initially  
approved on 2/27/09  
per ES 303 - 109  
sheet was not  
inadvertently missed

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	2										X		S	
2	F	2										X		S	
3	H	3										X		S	
4	F	2										X		S	
5	H	3										X		S	
6	F	2										X		S	
7	F	3	X									X	X	U	Is this something that only an SRO would know OR is this also an RO level of knowledge question? Also, initial conditions sound like a VHRA requiring RPM approval for entry! No correct answer. Need RP Supv. For A to be correct. Are you in EOP? Stem says only Urgent not emergency! RE: RO's would implement this, RO's are trained in Admin procedures. Accident rad monitor to read between 1 & 5 rem. Yes in EOPS for this. Q changed to add specific rad levels. Distractors changed.

Instructions

[Refer to Section D of ES-401 and Appendix B for additional information regarding each of the following concepts.]

- Enter the level of knowledge (LOK) of each question as either (F)undamental or (H)igher cognitive level.
- Enter the level of difficulty (LOD) of each question using a 1 - 5 (easy - difficult) rating scale (questions in the 2 - 4 range are acceptable).
- Check the appropriate box if a psychometric flaw is identified:
  - The stem lacks sufficient focus to elicit the correct answer (e.g., unclear intent, more information is needed, or too much needless information).
  - The stem or distractors contain cues (i.e., clues, specific determiners, phrasing, length, etc).
  - The answer choices are a collection of unrelated true/false statements.
  - More than one distractor is not credible.
  - One or more distractors is (are) partially correct (e.g., if the applicant can make unstated assumptions that are not contradicted by stem).
- Check the appropriate box if a job content error is identified:
  - The question is not linked to the job requirements (i.e., the question has a valid K/A but, as written, is not operational in content).
  - The question requires the recall of knowledge that is too specific for the closed reference test mode (i.e., it is not required to be known from memory).
  - The question contains data with an unrealistic level of accuracy or inconsistent units (e.g., panel meter in percent with question in gallons).
  - The question requires reverse logic or application compared to the job requirements.
- 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).
- 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?
- 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	Backward	Q=K/A	SRO Only		
8	F	2										X		S	
9	F	3										X	X	S	K/A asks for RO knowledge during E Plans. Looks like SRO only Q! Are RO's Field Supervisors? RE: RO's are field supv and this is their task.
10	F	2										X	X	S	SRO-only question? RE: RO's need to know entry condition to ONI P56-2 in case phone notification received..
11	H	3										X		S	
12	H	3										X		S	
13	H	4										X		S	
14	F	2						0				X		S	
15	H	3						0				X		S	
16	H	4										X		S	
17	H	3										X		S	
18	H	3									#	X		S	
19	F	1		X		X						X		U	No good credible distractors for this K/A. Low LOD! RE: Changed distractors for RHR flow, recirc pump status and Rx level. This increased the LOD.
20	F	2										X		E	Do cmt AND DW evacuation alarms auto actuate on high rad? RE: Rad monitor D-17 does not actuate evacuation alarms.
21	F	3										X		S	
22	F	3										X		S	LOK is F not H unless there is a tie between condenser pressure and SRV setting. RE: Since above 1103, LL set conditions change setpoint.

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	Backward	Q=K/A	SRO Only		
23	F	3				X						X		U	What is MINIMUM Req'd temperature. "D" is also correct! RE: Added "minimum" to stem question.
24	H	3										X		S	
25	F	3										X		S	
26	F	3										X		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	Backward	Q=K/A	SRO Only		
27	H	3										X		S	
28	H	3										X		S	
29	H	3									#	X		S	Why is EPI-A1 reference provided for this question? RE: Need to access "H" series of EPI-A1 to ensure that entry conditions are NOT met for entry into EOP 5. No change
30	H	2									#	X		S	
31	F	2									#	X		S	
32	H	3				X						#	X	S	How to get a Level 3 without getting Level 4? If RFPT trips, with Level 4 then, D is correct. RE: RFPT does NOT trip on Level 4 and RFPT does NOT TRIP! No change.
33	F	3	X											S	Remove initial conditions such it doesn't effect answer choice. How does this answer vary with high drywell pressure? Different drain path? RE: Initial conditions necessary to support K/A.
34	H	3										X		S	
35	H	3										X		S	Is memorization of table required? Not higher LOK question! RE: Memory of Table is not req'd. It is higher due to pressure AND # SRV's.
36	H	3										X		S	
37	H	3										X		S	
38	H	4										X		S	
39	H	2										X		S	
40	F	2										X		S	
41	H	3										X		S	
42	H	3									#	X		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	Backward	Q=K/A	SRO Only		
43	H	2									#	X		S	
44	H	3									#	X		S	
45	F	3										X		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	Backward	Q=K/A	SRO Only		
46	H	3										X		S	
47	H	3			X							X		S	It appears that all the distractors are not affected by the Mode Switch position! RE: Mode switch position IS important to IRM function. No change.
48	H	3									#	X		S	
49	H	3										X		S	
50	H	4										X		S	
51	F	3										X		S	
52	H	3										#	X	S	
53	H	4		X		X						X		U	What is penetration temperature? - not given or able to be calculated. Need to give 2 <sup>nd</sup> calculation. Stem states Rx pressure at 140 psig, and distactor says Rx pressure <150 psig. Need to ensure that "A" distractor is not the correct answer. RE: Q changed such that distractor C is opposite of Precaution & Limitation! Calculate 140 psig based on cooldown rate and 5 hrs later in lieu of giving them the pressure 140 psig. Provided Temperature formula for penetration.
54	F	3										X		S	
55	F	3										#	X	S	
56	H	3										#	X	S	
57	F	3			X							X		U	Series of True and False questions RE: Pulled sentence from each distractor into stem and eliminated 2 <sup>nd</sup> condition.
58	F	4			X			0				X		S	Series of True and False questions. RE: No, stem provides necessary information. No change.

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	Backward	Q=K/A	SRO Only		
59	H	4				X					#			S	Is there a F-1-E bus? Appears to be memory since it is asking what is power supply to battery chargers! RE: Need to know that EDG backup XH12 and normally powered by F1D. FIE Bus exists. Higher LOD. No change.
60	F	4						X				X		S	Do operators or maintenance workers operate Kirk Key Interlock. RE: Yes opened per SOI's.
61	H	3									#	X		S	
62	H	2									#			S	Need 2 items to answer correctly, so it's a higher order question. Changed to Higher order question.
63	H	4										X		S	
64	F	2										X		S	
65	H	3										X		S	
66	F	3										X		S	
67	H	3				X					#	X		U	C & D distractors are both correct. RE: Question replaced.
68	F	3									#	X		S	
69	H	3				X						X		S	Need to change parameters to discriminate from those who chose higher value from those who do not! Need to change one distractor to ensure graph is used for 3 of 4 distractors. Must meet all conditions in 2.0. RE: Note at bottom of page will be removed in reference provided to applicants. RE: Do not use the graph to get to correct answer. Use graph to eliminate distractor. Also, changed EOPs that changed time req't. No change req'd.
70	H	3									#	X		S	
71	H	4						0				X		S	
72	F	2										X		E	This is lower order question/memory. RE: Changed to memory.
73	H	3						0				X		S	
74	H	3									#	X		S	



63	H	4										X		S	
93	H	2								#		X	X	S	
94	F	2										X	X	S	
95	H	3										X	X	S	
96	F	2										X	X	S	
97	H	3										X	X	S	
98	F	2										X	X	S	

99	H	3										X	X	S	
100	F	3										X	X	E	How is providing a reference necessary to answer this question? Need to pull into stem, "is responsible to terminate the event." Distractor "D" is considered non-plausible. Include elements of time since started in distractor. RE Reference is not required to answer question, but provided to answer other question. Time provided to ensure that Emergency Coordinator NOT in charge. Add shift Mgr still in charge (TSC not up and running yet.) For UE, "D" is correct.

All 100 questions were reviewed for compliance with K/A statement, LOK, LOD, and implausible distractors.

Identified that the following questions were from previous NRC Exams:

- Q14 - From Perry NRC exam 2007-2 (retake exam)
- Q15 - From Perry NRC exam 2007-1
- Q58 - From Perry NRC exam 2005
- Q71 - From Perry NRC exam 2007-1
- Q73 - From Perry NRC exam 2005

Last 2 NRC exams were NRC exam 2007-01 and 2007-02 (retake).

Verified that this was correct per John Munro and Fred Gunther on 12/10/2008.

Comments to Perry Initial License (Jan 2009) Exam Outline Review:

- ES-201 Sheet: I need to review the licensee audit exam to ensure no duplication between NRC exam and audit exam. I expect to review audit exam outline during OV week.
- ES-301 JPMs: JPM 4, RCIC/RPV Level and Pressure Control, is listed as Safety Function 4. Informed licensee if JPM has RCIC operated for RPV Level control, then Safety Function 2 would be applicable, and Safety Function 2 was already chosen. This would result in duplication of Safety Functions for JPM. I asked that licensee ensure that RCIC would be operated for RPV pressure control/core decay heat removal as is required of Safety Function 4.
- ES-301-5 Checklist: I wanted to ensure that ATC operator would be responsible for responding to Condensate pump trip and main generator voltage regulator problem. Licensee stated that both of these systems are on the front panel for which the ATC is responsible.
- Last crew performing Scenario 4, the instant candidate was credited for both a Normal and a Reactivity manipulation for the same event. I informed the licensee that ES-301, 5.d prohibits 'double counting' these events. Licensee mentioned that they were not sure of crew composition in September for a January exam, but would change ES-301-5 sheets at a later date.
- ES-401-1 Written: Tier 2/Group 1 question for K/A 259002 had an importance rating of 2.4 which was less than 2.5 and is prohibited by ES-401, D.1.b. Licensee stated that there was a recent actual event where all power was lost to digital RWL control system. I agreed with their justification to keep the K/A rather than to repick.
- ES-D-1 Scenario: Scenario 1, 2 and 5 appeared to all involve a loss of feedwater. Licensee stated that each event was different.
- Scenario 4 (and Scenario 5) listed events 5 and 6 as separate major events. Informed licensee since event 6 was a response to event 5, that they are not separate major events and that events 5 & 6 should be combined into one major event.

# **PERRY 2009 OPERATING TEST COMMENTS**

## I. Scenario No. 1

### **A. Events 1&2 – Shifting RFBP (NOR) and EDG to Standby (NOR)**

1. Will separate peer checkers be provided? *No*
2. Shifting RFBP was minimally acceptable? *2 actions are minimal but acceptable.*
3. Placing EDG in standby appears to have only one verifiable action – this may not be adequate to evaluate applicant's (BOP) competence? *There are 2 actions but acceptable.*

### **B. Event 3 – APRM fails upscale (I/C)**

1. ATC must be the applicant that bypasses ARPM AND resets half scram otherwise there would be only a single verifiable action. Even so there are only two verifiable actions? *Both actions done by ATC.*

### **C. Event 4 – Inadvertent SRV Opening (I/C & Rx)**

1. No Comments

### **D. Event 5 – RCIC Initiation/Scram (M)**

1. Failure to identify auto-start failure of MDRFP and subsequent manual start of MDRFP (I/C) will be a significant competency hit if missed? *Agreed*
2. If crew fails to start MDRFP then actions to minimize inventory loss and restore injection must be taken to prevent dropping level below TAF
  - a) Does IC have enough decay heat to drive level to TAF if crew fails to start MDRFP? *Probably not. New software provides for injection from FW system (FW htrs and FW piping) during ED.*
  - b) Can level be maintained above TAF using NON-ECCS injection sources? *Yes*
  - c) Does RCIC malfunction (I/C) prevent using RCIC for pressure control if MSIVs go shut? *No*
3. Pg 6 and pg 7 disagree unless pg 7 refers to STEAM isolation valves fail open!

### **E. Event 6 – RCIC Steam Leak (M)**

1. How is event triggered? *Isolation Failure and Leak in RCIC room.*
2. On page 8, shouldn't ATC action be to RESTORE and MAINTAIN level? *Yes*

Missing "Critical Task 3" in Event Description on worksheet in back of Scenario. Fixed.

## II. Scenario 2

TURNOVER: Have Rx power raised after "B" RHR placed in SDC. *Re: Change made*  
Need to add "Raise reactor power with Recirculation Flow" to D-1 sheet after event 2. *RE: Comment not incorporated since this is not the reactivity addition desired.*

D1 Sheet: Break Event #1 into 2 events. A Normal – placing RHR in Suppression pool cooling and a Component Failure – F0046B fails to close. *Re: Comment incorporated.*

### A. Event 1 – Place RHR in Pool Cooling (N&C?)

1. Will separate peer checkers be provided? *No*
2. BOP should get credit for the NORMAL evolution of placing RHR in pool cooling lineup? *Yes*
3. Not clear that this should qualify as a component failure no additional action is required to ensure pump is not running above min flow? *Valve fails to close automatically – must be closed manually.*
4. Is throttling F003 to obtain 7100-7300 gpm a procedurally driven step (4.2.12?)? *Yes*
5. If SRO directs RHR B shutdown, should he then direct RHR A be placed in pool cooling? *No, high temperature alarms should have cleared.*

### B. Event 2 – Main Generator Volt Reg failure (I/C)

1. BOP will likely stop what he is doing to assist with alarm response.
2. Will crew be willing to raise power with voltage regulator in Manual? *Yes*

### C. Event 3 – RR FCV failure and unplanned power change.

1. Will separate peer checkers be provided? *No*
2. Should allow enough of a power increase to take some credit for reactivity change since it appears that the number of cram rods inserted may be dependant upon how soon the RO identifies FCV failure and locks out HPU? *Contingency*
3. Tech Spec call is also dependant on how far RR FCV moves before HPU lockout? *Correct!*

### D. Event 4 – Loss of Feed Pumps

- 1 Simultaneous failure of multiple level instruments is not plausible? Loss of Power.
- 2 This major transient is very similar to first scenario inadvertent RCIC initiation as far as EOP response.

### ***E. Event 5 – SDV Rupture***

1. Is there enough energy in this malfunction to drive containment conditions (and is it realistic?), especially if scram is reset? Yes
2. Page 10 is labeled Drywell Pressure, what would be driving DW parameter changes if leak is in Containment? *Ctmt Pressure On Suppression Pool*

Missing "Critical Task 4" in Event Description on worksheet in back of Scenario. *Corrected.*

## **III. Scenario 3 (This scenario not used)**

### ***A. Event 1/2 – Raise Power and Transfer AC Busses***

1. Will need a separate reactivity control verifier

### ***B. Event 3 – Uncoupled Control Rod***

1. Need to address operator actions if power drops below LPSP.

### ***C. Event 4 – Control Room HVAC Rad Monitor Failure***

1. Doesn't appear to be any verifiable actions for BOP

### ***D. Event 5 – RFBP Trip and Failure of Standby Pump to Start***

1. Single verifiable action for ATC

### ***E. Event 6/7 – Seismic event***

1. Some of the hard card actions listed on pages 7 and 8 will not be applicable because of the ATWS
2. Consider adding a CRD pump trip, recoverable by starting standby pump, after ATC begins inserting control rods.
3. What is driving event that causes loss of level indication?
  - a) Initiation of level malfunction should be more flexible, i.e., not triggered by scram.
  - b) Scenario contains no Containment Control Actions (Drywell Coolant Leak???)

## IV. Scenario 4

**A. Scenario and Event Checklists (ES 301-5) need to be updated to reflect changes to D-1 form from initial submittal.**

### **B. Event 1 – Power Ascension**

1. Will need a separate reactivity control verifier? Yes, if requested some one will be provided.
2. Will events 1 and 2 be run concurrently and will crews be comfortable with this? No, they will be run in series.

### **C. Event 2 – Place Circ Water Pump in Service**

1. Will separate peer checkers be provided? No

### **D. Event 3 – Stuck Control Rod**

1. No comments

### **E. Event 4 – Loss of RPS Bus**

1. Is IRM G powered from RPS A? Yes
  - a) If not then select an IRM that is.
  - b) Fail IRM upon power restoration.
  - c) IRM failure should be listed as separate I/C failure. *See 2 below!*
  - d) Is resetting BOP isolation part of normal restoration or is because of blown fuses on B21-F019? *Part of Normal restoration.*
2. Should IRM G failing high be a separate component failure? Yes, *IRM "G" failure was split out from event 4 and turned into event 5 with resultant TS call by SRO.*

### **F. Event 5 – Suppression Pool Leak**

Event # 4 & 5 are not both majors! Event 4 is the major, 5 is the mitigating action. Suggest combining Events 4 & 5 into one major event. *Re: Comment incorporated.*

1. Actions for attempting to isolate leak (shutting F105) should be directed shortly after entering EOP-3. Scenario is correct as written.
  - a) Do not have to wait until after determination that a primary system is discharging into area
  - b) Do not have to wait for two max safes

2. Shouldn't normal makeup methods be initiated before initiating pool dumps?  
*SRO option to do this action.*
3. Scenario outline has no mention of an ATWS, yet scenario D1 sheet does not have ATWS directions.
  - a) What is the magnitude of the ATWS? <4% power.
    - (1) Is boron injection expected? Is it acceptable? No boron injection expected since SRO will transient through this procedure.
  - b) If not does injection mean failure of critical task? No competency associated with this action.
  - c) Some of the hard card actions listed on pages 12 and 13 will not be applicable because of the ATWS. True
  - d) SRO should direct water level of -25" to 219" not 178" to 219" per EOP01A.

## V. Scenario 5

D-1 sheet: Events 5 & 6 are not both major events. Event 5 is the major event and Event 6 is the mitigative action. Suggest combining events 5 & 6. *RE: Done!*

### A. Event 1 – Power Reduction

1. Will events 1 and 2 be run concurrently and will crews be comfortable with this?  
*Events will be run in series.*
2. Will separate peer checkers be provided? *No*

### B. Event 2 – Shift Stator Cooling Water Pump

1. Will separate peer checkers be provided? *No*

### C. Event 3 – Hotwell Pump Trip

1. Do the Hotwell Pumps fall within the ATC operator's normal responsibilities?  
*Yes*

### D. Event 4 – Loss of Div 1 and 3 busses

1. Do all of the following have to be complete before next event?
  - a) Bus Recovery *Yes*
  - b) Loss of Div 3 ESW *No*
  - c) Restore CRD *Yes*
  - d) Restore NCC *Yes*
  - e) BOP Isolation Restoration *No*

***E. Event 5 – Loss of Feed***

1. No comments

## Comments to JPMs:

### Control Room JPMs:

General Comment: JPM cues do not reference what procedure the applicants should be using to accomplish the JPM task!

C11-02: Enter Substitute Data in RCIS: No Comments

N27-05: Shift Digital Feedwater Control:

1. Suggest lining out references to 'A' and 'C' RFP's in steps 4.4.14.  
*Authors clarified step 8 of the JPM.  
Based on validation, the examiners had the authors delete steps 12 – 17 to shorten the JPM. There were no critical steps in the deleted steps.*

B21-06: Slow Close MSIV's:

1. Steps 5 & 9 should read "too" not "to." *Corrected*
2. As submitted ES-301-2 shuts "D" MSIV not 'A' MSIV! *Changed back to "D" MSIV*

E51-01: RCIC Level and Pressure Control:

1. Step 5, isn't RCIC suction normally lined up to CST? If so, not a critical step. No RCIC NOT normally lined up to CST!
2. Why are JPM steps 12 & 13 included if RCIC is already running in Pressure control? Steps will be deleted.

B21-07: Perform NSSS Isolation: No Comments.

N41-02: Synch the Main Generator to the Grid: No Comments.

C11-01: Pull Fuses in RPS Cabinet: No comments.

M15-01: Shift AEGT Fans:

1. Step 2, may need to include a note about time compression since we do not want to wait 5 minutes! *RE: Note was added about using time compression.*

### In-Plant JPMs:

P54-03: Initiate CR CO2, *Added Time Compression note in Step 4.*

M51-56: Start Hydrogen Recombiner:

1. Step 3, do we need to provide an Attachment 1 & 8 sheets for them to fill out in case they want to write on them? *RE: Entire procedure will be provided!*
2. Steps 4 & 5, may need to add a note about using time compression since we don't want to wait 10 minutes! *Time compression note was added.*

R10-14: Load Shed DC Distribution Bus:

*Based on In-plant performance, JPM Step 4, Disconnect 17 was removed from procedure but not yet removed from JPM. JPM was changed to remove reference to Disconnect 17.*

Admin JPMs:

RO Evaluate Proposed Work Schedule:

1. Saturday should be the 17<sup>th</sup> of the month. Need to adjust numbers on days.
2. Terminating Cue step 3 should read 72 hours not "&2 hours"

*Response: Comments Incorporated.*

RO Perform SVI-B33-T1160:

1. Step 2, will the examiners have to provide the applicant with the REPERF prints, or will they print this data from the computer?

*Response: Applicants will most likely choose to get information from the computer rather than calculate this data!*

RO Determine Tagging Boundary for "B" RFP:

1. Do you have a double tag requirement for working on equipment with pressure >500 psi or temperature > 200°F? *Response: No requirements at Perry Station*
2. Do you have a sequence for placing tags? Would this be considered critical?

*Response: Clearance would sequence hanging tags. Clearance is not required by JPM. Comment not incorporated.*

RO & SRO Determine Radiation Levels for Emergent Work:

*Based on on-site validation comments, the JPM was slightly modified to ensure that the individual knew he must VOLUNTEER for this work. Also, added that the applicant must fill out an Emergency Dose Authorization form.*

SRO Evaluate Proposed Work Schedule:

1. Saturday should be the 17<sup>th</sup> of the month. Need to adjust numbers on days.

*Response: Comment incorporated.*

SRO Make a Four Hour Notification: No Comments

SRO Perform TS 3.6.1.2, Ctmt Penetration: No Comments

SRO Classify Emergency, Notifications and PAR:

*Based on on-site validation comments, the ENS sheet (answer key) was modified to reflect the correct status of a site release.*



FirstEnergy Nuclear Operating Company

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Mark B. Bezilla  
Vice President

440-280-5382  
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January 28, 2009  
L-09-030

10 CFR 55

ATTN: Mr. Raymond Keith Walton  
Chief Examiner, Operations Branch, Region III  
U. S. Nuclear Regulatory Commission  
2443 Warrenville Road, STE 210  
Lisle, IL 60532-4352

**SUBJECT:**

Perry Nuclear Power Plant  
Docket No. 50-440, License No. NPF-58  
NRC Post-Examination Material, Perry License Class 2007-1

In accordance with the guidance provided in NUREG-1021, Operator Licensing Examination Standards for Power Reactors (Revision 9), ES-501, Initial Post-Examination Activities, Section C.1, the following materials are submitted in support of the Perry Nuclear Power Plant written operator license examination conducted on January 21, 2009.

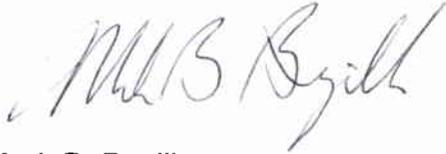
Attachment 1 contains the graded written examinations (i.e., each applicant's original answer and examination cover sheets) and a clean copy of each applicant's answer sheet. Attachment 2 contains the master examination answer keys. No changes were made to the examinations during administration and grading. Attachment 3 contains the questions asked by and answers given to the applicants during the written examination. Attachment 4 contains any substantive comments made by the applicants following the written examination with an explanation concerning why the comment was accepted or rejected. Attachment 5 contains the written examination seating chart. Attachment 6 contains the completed Form ES-403-1, Written Examination Grading Quality Checklist. Attachment 7 contains the results of the written examination performance analysis that was performed, with recommended substantive changes. Attachment 8 contains the original Form ES-201-3, Examination Security Agreement for individuals who completed the post-examination signature.

An updated Form ES-201-3, Examination Security Agreement will be forwarded when all post-examination signatures have been obtained.

There are no regulatory commitments contained in this letter. If there are any questions or if additional information is required, please contact Mr. Anthony E. Mueller, Jr. at (440) 280-5535.

**JAN 29 2009**

Sincerely,

A handwritten signature in black ink, appearing to read "Mark B. Bezilla". The signature is written in a cursive style with a large initial "M".

Mark B. Bezilla

Attachments:

1. Graded Written Examinations and Applicant's Answer Sheets
2. Master Examination Answer Keys
3. Questions asked and answers given to the applicants during the written examination
4. Substantive comments made by the applicants following the written examination
5. Written examination seating chart
6. Form ES-403-1, Written Examination Grading Quality Checklist
7. Written Examination Performance Analysis
8. Form ES-201-3, Examination Security Agreement

cc: NRC Project Manager w/o attachments  
NRC Resident Inspector w/o attachments  
NRC Region III Branch Chief w/o attachments  
NRC Document Control Desk w/o attachments