

**PROPOSED EXAMINATION COVER LETTER AND CHECKLISTS**

**FOR THE**

**PALISADES NUCLEAR PLANT INITIAL EXAMINATION**

**SEPTEMBER 2007**



Entergy Nuclear Operations, Inc.  
Palisades Nuclear Plant  
27780 Blue Star Memorial Highway  
Covert, MI 49043

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July 19, 2007

NUREG-1021

Mr. Bruce Palagi  
U.S. Nuclear Regulatory Commission  
Region III  
2443 Warrenville Road  
Suite 210  
Lisle, IL 60532-4352

Palisades Nuclear Plant  
Dockets 50-255 and 72-07  
License No. DPR-20

Initial License Examination Materials

Dear Sir:

Entergy Nuclear Operations, Inc. is submitting the initial license examination for the Palisades Nuclear Plant, in accordance with NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9. The initial license examination is scheduled for September 10 through September 14, 2007. The following materials are enclosed:

- ES 201-3, Examination Security Agreement (updated)
- ES 301-3, Operating Test Quality Checklist
- ES 301-4, Simulator Scenario Quality Checklist
- ES 301-6, Competencies Checklist
- Operational Job Performance Measures (10)
- Administrative Job Performance Measures (5)
- Scenarios (4)
- Form ES-D-2, Required Operator Actions (one form for each event)
- ES 401-6, Written Examination Quality Checklist

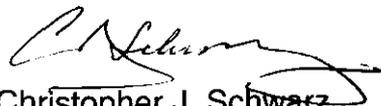
- ES-401-7, Site-Specific RO Written Examination Cover Sheet and RO Written Exam (ready to give with handouts)
- RO Written Examination Key with supporting references
- ES-401-8, SRO Site-Specific SRO Written Examination Cover Sheet and SRO Written Exam (ready to give with handouts)
- SRO Written Exam Key with supporting references

In accordance with NUREG-1021, ES-201, Attachment 1, these materials shall be withheld from public disclosure until after the examinations are complete.

Please contact Jeffrey Iliff at (269) 764-2829 if you have any questions regarding this submittal.

#### Summary of Commitments

This letter contains no new commitments and no revisions to existing commitments.



Christopher J. Schwarz  
Site Vice President  
Palisades Nuclear Plant

Enclosure (1)

CC Administrator, Region III, USNRC (w/o enclosure)  
Project Manager, Palisades, USNRC (w/o enclosure)  
Resident Inspector, Palisades, USNRC (w/o enclosure)  
Document Control Desk, USNRC (w/o enclosure)

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of 9/10/07 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 \_\_\_\_\_. 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. Darrell Hensley	Exam Project Manager	<i>Darrell Hensley</i>	11/17/06		
2. Jeffrey Elliott	Exam Developer	<i>Jeffrey Elliott</i>	3-14-07		
3. Daniel Bell	Simulator Support	<i>Daniel Bell</i>	3-29-07		
4. PAUL M. SCHMIDT	SIMULATOR SUPERVISOR	<i>Paul M. Schmidt</i>	4/5/07		
5. MIKE SWEET	Emergency Planning	<i>Mike Sweet</i>	4/6/07		
6. RALPH STARLAND	SIMULATOR SUPPORT	<i>Ralph Starland</i>	4/6/7		
7. Todd Muckford	Exam Project Operations System	<i>Todd Muckford</i>	4/8/07		
8. Michael Lee	EXAM VALIDATOR	<i>Michael Lee</i>	4/10/07		
9. SCOTT J. MOORE	EXAM VALIDATOR	<i>Scott J. Moore</i>	4/10/07		
10. GEORGE STIEBER	EXAM VALIDATOR NCO	<i>George Stieber</i>	10/29/07		
11. Nora Bratt	Emergency Planning	<i>Nora Bratt</i>	12/20/07		
12. John P. Earl	GSOT-Montreal	<i>John P. Earl</i>	4/16/07		
13. GEORGE MARLATT	SIMULATOR SUPPORT	<i>George R. Marlatt</i>	4/26/07		
14. Ronald J. Hudzik	Exam Validator NCO	<i>R. Hudzik</i>	6/4/7		
15. Paul J. Rhodes	Exam Validator SRO	<i>Paul J. Rhodes</i>	6/4/7		

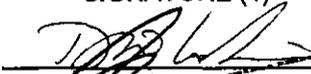
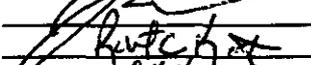
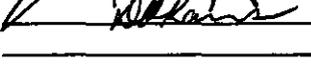
NOTES:

**1. Pre-Examination**

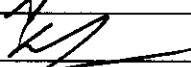
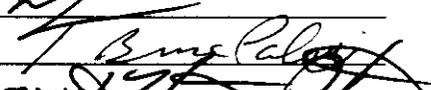
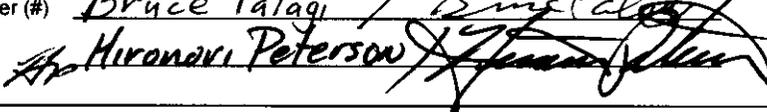
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**2. Post-Examination**

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	PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATE NOTE
1.	Daniel W. Corbin	Exam Validator / SRO		6/14/07		
2.	Jana T. Leblanc	Exam Validator / ACO		6/14/07		
3.	Robert C. Katz	Quality Assurance Auditor		6/21/07		
4.	Donald E. Karnes	Exam Developer		6/28/07		
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						

NOTES:

Facility: <u>Palisades</u>		Date of Examination: <u>9/10/2007</u>		Operating Test Number: <u>1</u>	
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).	A	S	BP	
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	A	S	BP	
c.	The operating test shall not duplicate items from the applicants' audit test(s)(see Section D.1.a).	A	S	BP	
d.	Overlap with the written examination and between different parts of the operating test is within acceptable limits.	A	S	BP	
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	A	S	BP	
2. WALK-THROUGH CRITERIA			--	--	--
a.	Each JPM includes the following, as applicable: <ul style="list-style-type: none"> <li>• initial conditions</li> <li>• initiating cues</li> <li>• references and tools, including associated procedures</li> <li>• reasonable and validated time limits (average time allowed for completion) and specific designation if deemed to be time critical by the facility licensee</li> <li>• operationally important specific performance criteria that include:                         <ul style="list-style-type: none"> <li>- detailed expected actions with exact criteria and nomenclature</li> <li>- system response and other examiner cues</li> <li>- statements describing important observations to be made by the applicant</li> <li>- criteria for successful completion of the task</li> <li>- identification of critical steps and their associated performance standards</li> <li>- restrictions on the sequence of steps, if applicable</li> </ul> </li> </ul>	A	S	BP	
b.	Ensure that any changes from the previously approved systems and administrative walk-through outlines (Forms ES-301-1 and 2) have not caused the test to deviate from any of the acceptance criteria (e.g., item distribution, bank use, repetition from the last 2 NRC examinations) specified on those forms and Form ES-201-2.	A	S	BP	
3. SIMULATOR CRITERIA			--	--	--
	The associated simulator operating tests (scenario sets) have been reviewed in accordance with Form ES-301-4 and a copy is attached.	A	S	BP	
	a. Author <u>Jeff Liff / </u>	Printed Name / Signature			Date
b.	Facility Reviewer (*) <u>Todd Mulford / </u>				<u>7-10-07</u>
c.	NRC Chief Examiner (#) <u>Bruce Palagj / </u>				<u>7-20-07</u>
d.	NRC Supervisor <u> Hironari Peterson</u>				<u>8-30-07</u> <u>9/4/07</u>
NOTE: * The facility signature is not applicable for NRC-developed tests # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence is required.					

Facility: Palisades		Date of Exam: September 2007		Scenario Numbers: 1 / 2 / 3		Operating Test Number: 1		
QUALITATIVE ATTRIBUTES						Initials		
						a	b*	c#
1.	The initial conditions are realistic, in that some equipment and/or instrumentation may be out of service, but it does not cue the operators into expected events.	✓	✓	BP				
2.	The scenarios consist mostly of related events.	✓	✓	BP				
3.	Each event description consists of <ul style="list-style-type: none"> <li>the point in the scenario when it is to be initiated</li> <li>the malfunction(s) that are entered to initiate the event</li> <li>the symptoms/cues that will be visible to the crew</li> <li>the expected operator actions (by shift position)</li> <li>the event termination point (if applicable)</li> </ul>	✓	✓	BP				
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.	✓	✓	BP				
5.	The events are valid with regard to physics and thermodynamics.	✓	✓	BP				
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	✓	✓	BP				
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.	✓	✓	BP				
8.	The simulator modeling is not altered.	✓	✓	BP				
9.	The scenarios have been validated. Pursuant to 10CFR55.46(d), any open simulator performance deficiencies or deviations from the referenced plant have been evaluated to ensure that functional fidelity is maintained while running the planned scenarios.	✓	✓	BP				
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.5 of ES-301.	✓	✓	BP				
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	✓	✓	BP				
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).	✓	✓	BP				
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.	✓	✓	BP				
<b>Target Quantitative Attributes (Per Scenario; See Section D.5.d)</b>		<b>Actual Attributes</b>		--	--	--		
1.	Total malfunctions (5-8)	6 / 6 / 6		✓	✓	BP		
2.	Malfunctions after EOP entry (1-2)	1 / 1 / 1		✓	✓	BP		
3.	Abnormal events (2-4)	4 / 3 / 4		✓	✓	BP		
4.	Major transients (1-2)	2 / 1 / 2		✓	✓	BP		
5.	EOPs entered/requiring substantive actions (1-2)	1 / 1 / 1		✓	✓	BP		
6.	EOP contingencies requiring substantive actions (0-2)	1 / 1 / 1		✓	✓	BP		
7.	Critical tasks (2-3)	3 / 2 / 3		✓	✓	BP		

Facility: Palisades			Date of Examination: 9/10/2007									Operating Test No.: 1						
Competencies	APPLICANTS																	
	CREW 1									CREW 2								
	RO <input type="checkbox"/>	SRO-I <input checked="" type="checkbox"/>	SRO-U <input type="checkbox"/>	RO <input type="checkbox"/>	SRO-I <input checked="" type="checkbox"/>	SRO-U <input type="checkbox"/>	RO <input type="checkbox"/>	SRO-I <input type="checkbox"/>	SRO-U <input checked="" type="checkbox"/>	RO <input type="checkbox"/>	SRO-I <input checked="" type="checkbox"/>	SRO-U <input type="checkbox"/>	RO <input type="checkbox"/>	SRO-I <input checked="" type="checkbox"/>	SRO-U <input type="checkbox"/>	RO <input type="checkbox"/>	SRO-I <input type="checkbox"/>	SRO-U <input checked="" type="checkbox"/>
	SCENARIO			SCENARIO			SCENARIO			SCENARIO			SCENARIO			SCENARIO		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
SRO	ATC	BOP	ATC	BO P	SRO	BOP	SRO	ATC	BOP	SRO	ATC	ATC	BOP	SRO	SRO	ATC	BOP	
Interpret/ Diagnose Events and Conditions	345678	2345678	3456	36789	3456	23456	245678	234568	257	245678	234568	257	36789	3456	23456	345678	2345678	3456
Comply With and Use Procedures (1)	23468	124678	13456	3789	13456	123456	245678	1234568	12457	245678	1234568	12457	3789	13456	123456	23468	124678	13456
Operate Control Boards (2)	---	1-8	13456	124678	1356	---	124678	---	12457	124678	---	12457	124678	1356	---	---	1-8	13456
Communicate and Interact	1-9	1-8	1-7	1-9	1-8	1-7	1-9	1-8	1-7	1-9	1-8	1-7	1-9	1-8	1-7	1-9	1-8	1-7
Demonstrate Supervisory Ability (3)	34678	---	---	---	---	123456	---	134568	---	---	13456	---	---	---	123456	34678	---	---
Comply With and Use Tech Specs. (3)	35	---	---	---	---	23	---	34	---	---	34	---	---	---	23	35	---	---
Notes: (1) Includes Technical Specification compliance for an RO. (2) Optional for an SRO-U. (3) Only applicable to SROs.																		

**Instructions:**

Check 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.

Facility: Palisades Date of Exam: 9/10/2007 Exam Level: RO  SRO

Item Description	Initial								
	a	b*	c*						
1. Questions and answers are technically accurate and applicable to the facility.	A	A	BP						
2. a. NRC KIAs are referenced for all questions. b. Facility learning objectives are referenced as available.	A	A	BP						
3. SRO questions are appropriate in accordance with Section D.2.d of ES-401	A	A	BP						
4. The sampling process was random and systematic (If more than 4 RO or 2 SRO questions were repeated from the last 2 NRC licensing exam, consult the NRR OL program office).	N/A	N/A	BP						
5. Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: <input checked="" type="checkbox"/> the audit exam was systematically and randomly developed; or <input type="checkbox"/> the audit exam was completed before the license exam was started; or <input type="checkbox"/> the examinations were developed independently; or <input type="checkbox"/> the licensee certifies that there is no duplication; or <input type="checkbox"/> other (explain)	A	A	BP						
6. Bank use meets limits (no more than 75 percent from the bank, at least 10 percent new, and the rest new or modified); enter the actual RO / SRO-only question distribution(s) at right.	<table border="1"> <thead> <tr> <th>Bank</th> <th>Modified</th> <th>New</th> </tr> </thead> <tbody> <tr> <td>23 26/15 7-20-07</td> <td>6 A12 7-20-07</td> <td>46 46/18 7-20-07</td> </tr> </tbody> </table>			Bank	Modified	New	23 26/15 7-20-07	6 A12 7-20-07	46 46/18 7-20-07
Bank	Modified	New							
23 26/15 7-20-07	6 A12 7-20-07	46 46/18 7-20-07							
7. Between 50 and 60 percent of the questions on the RO exam are written at the comprehension /analysis level; the SRO exam may exceed 60 percent if the randomly selected KAs support the higher cognitive levels; enter the actual RO / SRO question distribution(s) at right.	<table border="1"> <thead> <tr> <th>Memory</th> <th>CIA</th> </tr> </thead> <tbody> <tr> <td>8/30/07 <del>32/11</del> 30/10</td> <td>43/14 45/15</td> </tr> </tbody> </table>			Memory	CIA	8/30/07 <del>32/11</del> 30/10	43/14 45/15		
Memory	CIA								
8/30/07 <del>32/11</del> 30/10	43/14 45/15								
8. References/handouts provided do not give away answers or aid in the elimination of distractors.	A	A	BP						
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	A	A	BP						
10. Question psychometric quality and format meet the guidelines in ES Appendix B.	A	A	BP						
11. The exam contains the required number of one-point, multiple choice items; the total is correct and agrees with value on cover sheet	A	A	BP						

	Printed Name / Signature	Date
a. Author	Jeff Iliff /	7-10-07
b. Facility Reviewer (*)	Todd Mulford /	7-18-07
c. NRC Chief Examiner (#)	Bruce Palag /	8-30-07
d. NRC Regional Supervisor	Michael Peterson /	9/4/07

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.