

## **VARIOUS CHECKLISTS**

**FOR THE PALISADES INITIAL EXAMINATION - JULY/AUG 2003**

# Palisades Nuclear Plant - ~~OR~~ Hensley

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 July 2003 as of the date of my signature. I agree that I will not knowingly divulge any information about these examinations to any persons who have not been authorized by the NRC chief examiner. I understand that I am not to instruct, evaluate, or provide performance feedback to those applicants scheduled to be administered these licensing examinations from this date until completion of examination administration, except as specifically noted below and authorized by the NRC. Furthermore, I am aware of the physical security measures and requirements (as documented in the facility licensee's procedures) and understand that violation of the conditions of this agreement may result in cancellation of the examinations and/or an enforcement action against me or the facility licensee. I will immediately report to facility management or the NRC chief examiner any indications or suggestions that examination security may have been compromised.

## 2. Post-Examination

To the best of my knowledge, I did not divulge to any unauthorized persons any information concerning the NRC licensing examinations administered during the week(s) of July 2003. From the date that I entered into this security agreement until the completion of examination administration, I did not instruct, evaluate, or provide performance feedback to those applicants who were administered these licensing examinations, except as specifically noted below and authorized by the NRC.

PRINTED NAME	JOB TITLE / RESPONSIBILITY	SIGNATURE (1)	DATE	SIGNATURE (2)	DATENOTE
1. Darrell D. Hensley	Developer / Exam Lead	<i>Darrell Hensley</i>	11/13/02	<i>Darrell Hensley</i>	8/4/03
2. Carl O. Oberlin	Regul. Developer	<i>Carl O. Oberlin</i>	11-13-02	<i>Carl O. Oberlin</i>	8-6-03
3. Louise E. Chapman	Ops. Group Admin.	<i>Louise E. Chapman</i>	11-13-02	<i>Louise Chapman</i>	8-4-03
4. Ross Snuggerud	Ops. Management Rep	<i>Ross Snuggerud</i>	01/08/03	<i>Ross Snuggerud</i>	8/6/03
5. Daniel Bell	Simulator Support	<i>Dan Bell</i>	3/1/03	<i>Dan Bell</i>	8/4/03
6. MARK A. BATES	Operations Rep	<i>Mark A. Bates</i>	3/1/03	<i>Mark A. Bates</i>	8/4/03
7. Aaron J. Miller	Reactor Operator Rep	<i>Aaron J. Miller</i>	3/1/03	<i>Aaron J. Miller</i>	8/4/03
8. GEORGE STIEBER	REACTOR OPERATOR REP	<i>George Stieber</i>	3/1/03	<i>George Stieber</i>	8/4/03
9. VIRGINIA L. MOORE	JUNIOR REACTOR OPERATOR / OPS	<i>Virginia L. Moore</i>	3/1/03	<i>Virginia L. Moore</i>	8/13/03
10. <del>Robert R. W. Dittmer</del>	SENIOR REACTOR OPERATOR / OPS	<del><i>Robert R. W. Dittmer</i></del>	5/15/03	<del><i>Robert R. W. Dittmer</i></del>	9/3/03
11. Thomas R. Loudenstlager	EP Technical Support	<i>Thomas R. Loudenstlager</i>	6/3/03	<i>Thomas R. Loudenstlager</i>	8/3/03
12. RALPH STARLAND	SIMULATOR SUPPORT	<i>Ralph Starland</i>	7/1/03	<i>Ralph Starland</i>	8/4/03
13. William H. Pratt	Simulator Support	<i>William H. Pratt</i>	7/18/03	<i>William H. Pratt</i>	8/4/03
14. Louis Hein	Simulation Support	<i>Louis Hein</i>	7/21/03	<i>Louis Hein</i>	8/4/03
15. GREGG M. SMITH	REGULATOR	<i>Gregg M. Smith</i>	7/21/03	<i>Gregg M. Smith</i>	8/4/03
16. Patrick J. Pfeiffer	SRO	<i>Patrick J. Pfeiffer</i>	7/21/03	<i>Patrick J. Pfeiffer</i>	8/4/03
17. Stephen R. Botimer	SS/SE Surrogate	<i>Stephen R. Botimer</i>	7/29/03	<i>Stephen R. Botimer</i>	8/4/03
18. David J. Vandewalle	Operations Superintendent	<i>David J. Vandewalle</i>	7/29/03	<i>David J. Vandewalle</i>	7/31/03

NOTES:

Released per phoncon to NRC Region II - Hensley 8/4/03

June 3, 2003

Mr. Dell McNeil  
Nuclear Regulatory Commission  
Region III  
801 Warrenville Road  
Lisle, IL 60532-4351

**PALISADES NUCLEAR PLANT  
INITIAL LICENSE EXAMINATION**

Nuclear Management Company, LLC, is submitting the initial license examination for the Palisades Nuclear Plant, in accordance with NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 8, Supplement 1. The initial license examination is scheduled for July 21, 2003, through August 1, 2003. The following materials are enclosed:

- ES-301-3, "Operating Test Quality Checklist"
- ES-301-4, "Simulator Scenario Quality Checklist," final version
- ES-301-6, "Competencies Checklist," one for each group
- ES-401-7, "Written Exam Quality Checklist," one for Senior Reactor Operator (SRO) and one for Reactor Operator (RO)
- ES-301-2, "Control Room Systems and Facility Walk-through Test Outline," (updated)
- Certification of no duplication with audit exam
- 125 written exam questions, including distractor analysis, supporting references, and original form of bank question (as appropriate)
- 3 simulator scenarios (Scenario 1, Scenario 2, Scenario 3)
- 30 job performance measures (JPMs) (20 system, 10 administrative)
- CD-ROM with applicable Palisades references
- Hard copy of Technical Data Book

Pursuant to NUREG-1021, these materials shall be withheld from public disclosure until after the examinations are complete.

Please contact Darrell Hensley at (269) 764-2133, if you have any questions regarding this submittal.

A handwritten signature in black ink, appearing to be 'Douglas E. Cooper', written over a horizontal line.

Douglas E. Cooper  
Site Vice-President, Palisades

Enclosure

Facility:		Date of Examination:		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).			NA	RDS	Y
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.			NA	RDS	Y
c.	The operating test shall not duplicate items from the applicants' audit test(s) (see Section D.1.a).			NA	RDS	
d.	Overlap with the written examination and between operating test categories is within acceptable limits.			NA	RDS	NGS
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.			NA	RDS	Y
2. WALK-THROUGH (CATEGORY A & B) CRITERIA				-	-	-
a.	Each JPM includes the following, as applicable: <ul style="list-style-type: none"> <li>initial conditions</li> <li>initiating cues</li> <li>references and tools, including associated procedures</li> <li>reasonable and validated time limits (average time allowed for completion) and specific designation if deemed to be time critical by the facility licensee</li> <li>specific performance criteria that include: <ul style="list-style-type: none"> <li>detailed expected actions with exact criteria and nomenclature</li> <li>system response and other examiner cues</li> <li>statements describing important observations to be made by the applicant</li> <li>criteria for successful completion of the task</li> <li>identification of critical steps and their associated performance standards</li> <li>restrictions on the sequence of steps, if applicable</li> </ul> </li> </ul>			NA	RDS	Y
b.	The prescribed questions in Category A are predominantly open reference and meet the criteria in Attachment 1 of ES-301.			N/A	N/A	N/A
c.	Repetition from operating tests used during the previous licensing examination is within acceptable limits (30% for the walk-through) and do not compromise test integrity.			NA	RDS	NGS
d.	At least 20 percent of the JPMs on each test are new or significantly modified.			NA	RDS	Y
3. SIMULATOR (CATEGORY C) CRITERIA				-	-	-
a.	The associated simulator operating tests (scenario sets) have been reviewed in accordance with Form ES-301-4 and a copy is attached.			NA	RDS	Y
		Printed Name / Signature		Date		
a. Author	Darrell Hensley / Darrell Hensley		6/05/03			
b. Facility Reviewer(*)	Ross Snuggerud / Ross Snuggerud		6/05/03			
c. NRC Chief Examiner (#)	Dell R. McNeil / Dell R. McNeil		7/15/03			
d. NRC Supervisor	RD Linksbury / RD Linksbury		7/07/03			
NOTE: • The facility signature is not applicable for NRC-developed tests. # Independent NRC reviewer initial items in Column "c;" chief examiner concurrence required.						

Facility: <b>PALISADES</b>		Date of Exam: <b>July 2003</b>		Scenario Numbers: <b>1 / 2 / 3</b>		Operating Test No.: <b>1</b>	
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.	<del>RA</del>	<del>RS</del>	CP			
2.	The scenarios consist mostly of related events.	<del>RA</del>	<del>RS</del>	CP			
3.	Each event description consists of . the point in the scenario when it is to be initiated . the malfunction(s) that are entered to initiate the event . the symptoms/cues that will be visible to the crew . the expected operator actions (by shift position) . the event termination point (if applicable)	<del>RA</del>	<del>RS</del>	CP			
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.	<del>RA</del>	<del>RS</del>	CP			
5.	The events are valid with regard to physics and thermodynamics.	<del>RA</del>	<del>RS</del>	CP			
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	<del>RA</del>	<del>RS</del>	CP			
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.	<del>RA</del>	<del>RS</del>	CP			
8.	The simulator modeling is not altered.	<del>RA</del>	<del>RS</del>	CP			
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.	<del>RA</del>	<del>RS</del>	MGB			
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.	<del>RA</del>	<del>RS</del>	CP			
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	<del>RA</del>	<del>RS</del>	MGB			
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).	<del>RA</del>	<del>RS</del>	CP			
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.	<del>RA</del>	<del>RS</del>	CP			
TARGET QUANTITATIVE ATTRIBUTES (PER SCENARIO; SEE SECTION D.4.D)		Actual Attributes		--	--	--	
1.	Total malfunctions (5-8)	6 / 8 / 7		<del>RA</del>	<del>RS</del>	CP	
2.	Malfunctions after EOP entry (1-2)	1 / 2 / 2		<del>RA</del>	<del>RS</del>	CP	
3.	Abnormal events (2-4)	2 / 3 / 3		<del>RA</del>	<del>RS</del>	CP	
4.	Major transients (1-2)	1 / 2 / 1		<del>RA</del>	<del>RS</del>	CP	
5.	EOPs entered/requiring substantive actions (1-2)	1 / 2 / 1		<del>RA</del>	<del>RS</del>	CP	
6.	EOP contingencies requiring substantive actions (0-2)	2 / 2 / 2		<del>RA</del>	<del>RS</del>	CP	
7.	Critical tasks (2-3)	3 / 4 / 3		<del>RA</del>	<del>RS</del>	CP	

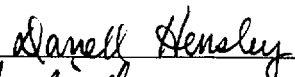
**PALISADES**

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

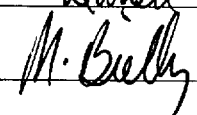
## Instructions:

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:



**PALISADES**

Competencies	Applicant #4 SRO - I (1)		Applicant #5 SRO - I (2)			Applicant #6 SRO - I (3)	
	SCENARIO		SCENARIO			SCENARIO	
	1	2	1	2	3	1	2
Understand and Interpret Annunciators and Alarms	4,5,6,8,9	3,5	4,5,6,8,9	4,6,7	4,5,7	4,5,6,8,9	3,5
Diagnose Events and Conditions	3,4,5,6,7,8,9	3,5,8,10	3,4,5,6,7,8,9	4,6,7,8	4,5,7,9	3,4,5,6,7,8,9	3,5,8,10
Understand Plant and System Response	2,5,6,7,9	2,3,10	2,5,6,7,9	1,2,4,6	2,4,9	2,5,6,7,9	2,3,10
Comply With and Use Procedures (1)	All	All	All	All	All	All	All
Operate Control Boards (2)		2,3,5,8,10		1,2,6,7	2,4,5,7,9		2,3,5,8,10
Communicate and Interact With the Crew	All	All	All	All	All	All	All
Demonstrate Supervisory Ability (3)	All		All			All	
Comply With and Use Tech. Specs. (3)	3,4,5		3,4,5			3,4,5	
Notes: (1) Includes Technical Specification compliance for an RO. (2) Optional for an SRO-U. (3) Only applicable to SROs.							

## Instructions:

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

Author:

Donell Hensley

NRC Reviewer:

M. Bully



**PALISADES**

Competencies	Applicant #7 SRO - I (4)		Applicant #8 SRO - I (5)			Applicant #9 SRO - I (6)		
	SCENARIO		SCENARIO			SCENARIO		
	3	4	1	2	3	1	2	3
Understand and Interpret Annunciators and Alarms	4,5,7	3,7,9	4,6 8,9	3,6,7	3,6	3,6, 9	3,5	4,5,7
Diagnose Events and Conditions	3,4,5,6,7 8,9	3,6,7,9	4,5, 6,7	3,4,5, 6,7,8, 9	3,6,8	3,6, 9	3,5,8, 10	3,4,5, 6,7,8, 9
Understand Plant and System Response	2,4,5	2,6,7	2,4, 5,6, 7,9	1,2,7	2,3,6	2,3, 6	2,3, 10	2,4,5
Comply With and Use Procedures (1)	All	All	All	All	All	All	All	All
Operate Control Boards (2)		2,3,6,9	2,4, 5,6, 7		1,2,3 4,8	1,2, 3,6	2,3,5, 8,10	
Communicate and Interact With the Crew	All	All	All	All	All	All	All	All
Demonstrate Supervisory Ability (3)	All			All				All
Comply With and Use Tech. Specs. (3)	3,7			4,5				3,7
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:

Samuel Sensley

NRC Reviewer:

M. Bielly

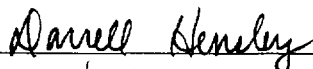
**PALISADES**

Competencies	Applicant #10 SRO-U (1)		Applicant #11 SRO-U (2)		Applicant #12 SRO-U (3)	
	SCENARIO		SCENARIO		SCENARIO	
	1	2	1	2	3	4
Understand and Interpret Annunciators and Alarms	3,6,9	3,6,7	3,6,9	3,6,7	3,6	3,4,7,9
Diagnose Events and Conditions	3,6,9	3,4,5,6,7,8,9	3,6,9	3,4,5,6,7,8,9	3,6,8	3,4,5,6,7,8,9
Understand Plant and System Response	2,3,6	1,2,7	2,3,6	1,2,7	2,3,6	2,6,7,8
Comply With and Use Procedures (1)	All	All	All	All	All	All
Operate Control Boards (2)	1,2,3,6		1,2,3,6		1,2,3,4,8	
Communicate and Interact With the Crew	All	All	All	All	All	All
Demonstrate Supervisory Ability (3)		All		All		All
Comply With and Use Tech. Specs. (3)		4,5		4,5		3,4
Notes: (1) Includes Technical Specification compliance for an RO. (2) Optional for an SRO-U. (3) Only applicable to SROs.						

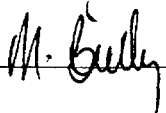
## Instructions:

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: <u>Palisades</u>		Date of Exam: <u>July 2003</u>		Exam Level: RO/SRO			
Item Description				Initial			
				a	b*	c*	
1. Questions and answers technically accurate and applicable to facility				<u>RAH</u>	<u>ROS</u>	<u>nav</u>	
2. a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available				<u>RAH</u>	<u>ROS</u>	<u>nav</u>	
3. RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401				<u>RAH</u>	<u>ROS</u>	<u>nav</u>	
4. Question selection and duplication from the last two NRC licensing exams appears consistent with a systematic sampling process						<u>nav</u>	
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 checked="" type="checkbox"/> the licensee certifies that there is no duplication; or other (explain)				<u>RAH</u>	<u>ROS</u>	<u>nav</u>	
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	<u>RAH</u>	<u>ROS</u>	<u>nav</u>
		<u>34</u>	<u>8</u>	<u>58</u>			
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		<u>RAH</u>	<u>ROS</u>	<u>nav</u>
		<u>42</u>	<u>58</u>				
8. References/handouts provided do not give away answers				<u>RAH</u>	<u>ROS</u>	<u>nav</u>	
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				<u>RAH</u>	<u>ROS</u>	<u>nav</u>	
10. Question psychometric quality and format meet ES, Appendix B, guidelines				<u>RAH</u>	<u>ROS</u>	<u>nav</u>	
11. The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet				<u>RAH</u>	<u>ROS</u>	<u>nav</u>	
Printed Name / Signature a. Author <u>Darrell Hensley / Darrell Hensley</u> b. Facility Reviewer (*) <u>Ross Snuggerud / Ross Snuggerud</u> c. NRC Chief Examiner (#) <u>Debra McNeil / Debra McNeil</u> d. NRC Regional Supervisor <u>R. L. Lanksbury / R. L. Lanksbury</u>				Date <u>6/3/03</u> <u>6/5/03</u> <u>7/15/03</u> <u>7/17/03</u>			
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.							

Facility: <u>Palisades</u>		Date of Exam: <u>July 2003</u>		Exam Level: <u>RO/SRO</u>		
Item Description	Initial					
	a	b*	c*			
1. Questions and answers technically accurate and applicable to facility	<u>RA</u>	<u>RS</u>	<u>nav</u>			
2. a. NRC K/As referenced for all questions b. Facility learning objectives referenced as available	<u>RA</u>	<u>RS</u>	<u>nav</u>			
3. RO/SRO overlap is no more than 75 percent, and SRO questions are appropriate per Section D.2.d of ES-401	<u>RA</u>	<u>RS</u>	<u>nav</u>			
4. Question selection and duplication from the last two NRC licensing exams appears consistent with a systematic sampling process			<u>nav</u>			
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 checked="" type="checkbox"/> the licensee certifies that there is no duplication; or other (explain)	<u>RA</u>	<u>RS</u>	<u>nav</u>			
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 <u>38</u>	Modified <u>8</u>	New <u>54</u>	<u>RA</u>	<u>RS</u>	<u>nav</u>
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 <u>42</u>	C/A <u>58</u>		<u>RA</u>	<u>RS</u>	<u>nav</u>
8. References/handouts provided do not give away answers	<u>RA</u>	<u>RS</u>	<u>nav</u>			
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	<u>RA</u>	<u>RS</u>	<u>nav</u>			
10. Question psychometric quality and format meet ES, Appendix B, guidelines	<u>RA</u>	<u>RS</u>	<u>nav</u>			
11. The exam contains 100, one-point, multiple choice items; the total is correct and agrees with value on cover sheet	<u>RA</u>	<u>RS</u>	<u>nav</u>			
Printed Name / Signature		Date				
a. Author	<u>Darrell Hensley / Darrell Hensley</u>	<u>6/3/03</u>				
b. Facility Reviewer (*)	<u>Ross Swagerud / Ross Swagerud</u>	<u>6/5/03</u>				
c. NRC Chief Examiner (#)	<u>Deil R. McNeil / Deil R. McNeil</u>	<u>7/15/03</u>				
d. NRC Regional Supervisor	<u>RO Linksteyn / RO Linksteyn</u>	<u>7/17/03</u>				
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.						

Facility: **PALISADES**  
Exam Level (circle one): **SRO**

Date of Examination: **JULY 2003**  
Operating Test No.: **1**

### B.1 Control Room Systems

System / JPM Title	Type Code*	Safety Function
a. Perform a Dropped Rod Test	DLS	1
b. Align Charging Pump Suction to SIRWT	NLS	2
c. Alternate Pressurizer Pressure Controllers	DS	3
d. Latch and Rollup the Main Turbine	NLS	4
e. Vent Reactor Head Gases	DLSA	5
f. Shift CCW Pumps	MSA	8
g. Manually Divert to Radwaste	NSA	9

### B.2 Facility Walk-Through

a. Alternate Methods of Auxiliary Feedwater	DLR	4
b. Manually Transfer Y-50 ABT	DLA	6
c. Manually Start P-41 Fire Pump	NL	8

\* 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: <b>PALISADES</b> Exam Level (circle one): <b>RO</b>		Date of Examination: <b>JULY 2003</b> Operating Test No.: <b>1</b>	
B.1 Control Room Systems			
System / JPM Title		Type Code*	Safety Function
a. Perform a Dropped Rod Test		DLS	1
b. Align Charging Pump Suction to SIRWT		NLS	2
c. Alternate Pressurizer Pressure Controllers		DS	3
d. Latch and Rollup the Main Turbine		NLS	4
e. Vent Reactor Head Gases		DLSA	5
f. Shift CCW Pumps		MSA	8
g. Manually Divert to Radwaste		NSA	9
B.2 Facility Walk-Through			
a. Alternate Methods of Auxiliary Feedwater		DLR	4
b. Manually Transfer Y-50 ABT		DLA	6
c. Manually Start P-41 Fire Pump		NL	8
* 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			

### ***Certification of No Duplication with Audit Exam***

Per NUREG-1021, rev 8, Supplement 1, ES-401, C.1.f, please be informed of the following:

1. As the Exam Author, I, Darrell D. Hensley hereby certify that I have prepared the Palisades Nuclear Plant July 2003 Initial License Exam.

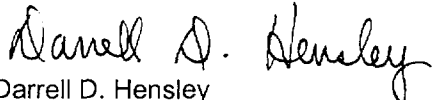
AND

2. Both exams were prepared such that there is NO duplication, or potential of compromise, between the audit exam and the license exam. Specifically, please note the following points:

The licensing exam was prepared using the systematic random sampling process in strict accordance with NUREG-1021, rev 8, Supplement 1. Comparing the resulting written exam questions on the licensing exam with the written exam questions on the facility audit exam indicates NO duplication of exam questions, and NO potential for compromise of the written licensing exam.

### **Additional Information**

I, as the Exam Author, did prepare several quizzes and comprehensive exams for the License Class during the early and middle part of the class. These quizzes and exams were completed and graded well before starting development of the Initial Licensing Exam. I certify that this activity resulted in NO compromise of the initial licensing exam.



Darrell D. Hensley  
Palisades Facility Representative and  
Exam Author

Written Examination Grading  
Quality Checklist

Facility: PALISADES		Date of Exam: August 01, 2003		Exam Level: RO	
Item Description		Initials			
		a	b	c	
1.	Clean answer sheets copied before grading	n/a	n/a	sm	
2.	Answer key changes and question deletions justified and documented	n/a	n/a	n/a	
3.	Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	n/a	n/a	dm	
4.	Grading for all borderline cases (80% +/- 2%) reviewed in detail	n/a	n/a	n/a	
5.	All other failing examinations checked to ensure that grades are justified	n/a	n/a	n/a	
6.	Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	n/a	n/a	sm	

	Printed Name / Signature	Date
a. Grader	<u>NICK VALOS / Nicholas A. Valos</u>	<u>8/13/03</u>
b. Facility Reviewer(*)	<u>n/a</u>	<u>n/a</u>
c. NRC Chief Examiner (*)	<u>DELL McNEIL / DELL McNEIL</u>	<u>8/13/03</u>
d. NRC Supervisor (*)	<u>Bruce Palagi / Bruce Palagi</u> <u>For R. Lanksbury</u>	<u>8/13/03</u>

(\*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.



Written Examination Grading  
Quality Checklist

Facility: PALISADES		Date of Exam: August 01, 2003		Exam Level: SRO	
Item Description		Initials			
		a	b	c	
1.	Clean answer sheets copied before grading	n/a	n/a	ben	
2.	Answer key changes and question deletions justified and documented	n/a	n/a	n/a	
3.	Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)	n/a	n/a	ben	
4.	Grading for all borderline cases (80% +/- 2%) reviewed in detail	n/a	n/a	n/a	
5.	All other failing examinations checked to ensure that grades are justified	n/a	n/a	n/a	
6.	Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants	n/a	n/a	ben	

	Printed Name / Signature	Date
a. Grader	<u>Nick Valos / Nicholas A Valos</u>	<u>8/13/03</u>
b. Facility Reviewer(*)	<u>n/a</u>	<u>n/a</u>
c. NRC Chief Examiner (*)	<u>Dee McNeil / Dee R. McNeil</u>	<u>8/13/03</u>
d. NRC Supervisor (*)	<u>Bruce Palagi / Bruce Palagi</u> <u>For R. Lanksbury</u>	<u>8/13/03</u>

(\*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.