

**PROPOSED EXAMINATION COVER LETTER AND CHECKLISTS**  
**FOR THE D. C. COOK INITIAL EXAM - MARCH 2007**



**INDIANA  
MICHIGAN  
POWER\***

*A unit of American Electric Power*

**Indiana Michigan Power**

Cook Nuclear Plant  
One Cook Place  
Bridgman, MI 49106  
AEP.com

January 24, 2007

U. S. Nuclear Regulatory Commission  
ATTN: Mr. Dell R. McNeil  
Region III Examiner  
2443 Warrenville Road, Suite 210  
Lisle, IL 60532-4352

**Donald C. Cook Nuclear Plant Units 1 and 2  
2007 INITIAL LICENSE EXAMINATION**

Enclosed you will find a copy of the Initial License Examination for the planned March 2007 Examination at Donald C. Cook Nuclear Plant (CNP).

The following items are enclosed in the sealed envelope:

- 1) CNP 2007 NRC Operating Examination Overview
- 2) ES-201-3 Examination Security Agreement
- 3) ES-301-3 Operating Test Quality Checklist
- 4) Scenario Exams with Forms ES-D-1 & D-2
  - a) COOK07-01
  - b) COOK07-02
- 5) ES-301-4 Simulator Checklist
- 6) ES-301-5 Transient and Event Checklist Set 1
- 7) ES-301-5 Transient and Event Checklist Set 2
- 8) ES-301-6 Competencies Checklist Set 1
- 9) ES-301-6 Competencies Checklist Set 2
- 10) ES-301-2 System JPM Outlines & Exams
  - a) SRO(I) JPM Outline
  - b) SRO(U) JPM Outline
  - c) RO JPM Outline
  - d) NRC2007-SIM01
  - e) NRC2007-SIM02
  - f) NRC2007-SIM03
  - g) NRC2007-SIM04
  - h) NRC2007-SIM05
  - i) NRC2007-SIM06
  - j) NRC2007-SIM07
  - k) NRC2007-SIM08
  - l) NRC2007-INP01

**JAN 25 2007**

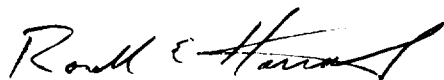
- m) NRC2007-INP02
- n) NRC2007-INP03
- 11) ES-301-1 Admin JPM Outlines & Exams
  - a) SRO Admin Outline
  - b) RO Admin Outline
  - c) NRC2007-A1
  - d) NRC2007-A2
  - e) NRC2007-A3
  - f) NRC2007-A4
  - g) NRC2007-A5
  - h) NRC2007-A6
  - i) NRC2007-A7
- 12) ES-401-6 Written Examination Quality Checklist
- 13) CNP 2007 Written Examination Attachments
- 14) CNP 2007 NRC Written Examination (100 questions with references)

A hard copy of all the examination materials is provided for your review. An electronic copy of documents without initials or signatures or other handwritten notations for the Public Document Room (ADAMS) has also been provided.

None of these materials are to go to the Public Document Room (ADAMS) until after the examination has been completed.

If you have any comments or concerns, please contact Ted Conrad or Steve Pettinger at (269) 466-3387 or myself at (269) 466-3407.

Sincerely,



Ronald E. Harrah  
Operations Training Manager

JTC/jen

Enclosures

Facility: <u>D.C. Cook</u>		Date of Examination: <u>3/19/07</u>		Operating Test Number: <u>200730</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).	JTC	SW	SM	
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	JTC	SW	SM	
c.	The operating test shall not duplicate items from the applicants' audit test(s). (see Section D.1.a.)	JTC	SW	SM	
d.	Overlap with the written examination and between different parts of the operating test is within acceptable limits.	JTC	SW	SM	
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	JTC	SW	SM	
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>	JTC	SW	SM	
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.	JTC	SW	SM	
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.			JTC	SW	SM
Printed Name / Signature		Date			
a.	Author <u>John T. Conrad / JTC</u>	<u>1/19/2007</u>			
b.	Facility Reviewer(*) <u>Dan Walter / DW</u>	<u>1/23/2007</u>			
c.	NRC Chief Examiner (#) <u>Brian McNair / B.McNair</u>	<u>02/29/07</u>			
d.	NRC Supervisor <u>JP Hummer, Peterson / JPH</u>	<u>3/19/07</u>			
NOTE: • The facility signature is not applicable for NRC-developed tests. # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.					

Facility: <u>DC. COOK</u>		Date of Exam: <u>3/19/07</u>		Scenario Numbers: <u>1 2 3</u>		Operating Test No.: <u>2007301</u>	
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.	JR	Shw	Shw			
2.	The scenarios consist mostly of related events.	JR	Shw	Shw			
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>	JR	Shw	Shw			
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.	JR	Shw	Shw			
5.	The events are valid with regard to physics and thermodynamics.	JR	Shw	Shw			
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	JR	Shw	Shw			
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.	JR	Shw	Shw			
8.	The simulator modeling is not altered.	JR	Shw	Shw			
9.	The scenarios have been validated. Pursuant to 10 CFR 55.46(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.	JR	Shw	Shw			
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.	JR	Shw	Shw			
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	JR	Shw	Shw			
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).	JR	Shw	Shw			
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.	JR	Shw	Shw			
<b>Target Quantitative Attributes (Per Scenario; See Section D.5.d)</b>		Actual Attributes		--	--	--	
1.	Total malfunctions (5-8)	7 1 8 1 6	JR	Shw	Shw		
2.	Malfunctions after EOP entry (1-2)	2 1 3 1 3	JR	Shw	Shw		
3.	Abnormal events (2-4)	4 1 4 1 4	JR	Shw	Shw		
4.	Major transients (1-2)	1 1 1 1 1	JR	Shw	Shw		
5.	EOPs entered/requiring substantive actions (1-2)	2 1 1 1 1	JR	Shw	Shw		
6.	EOP contingencies requiring substantive actions (0-2)	0 1 1 1 1	JR	Shw	Shw		
7.	Critical tasks (2-3)	2 1 2 1 2	JR	Shw	Shw		

## SET 1

Facility: DC Cook U1/U2 Date of Examination: 3/19/07 Operating Test No.: 2007301

Competencies	APPLICANTS															
	RO <input type="checkbox"/>				RO <input checked="" type="checkbox"/>				RO <input checked="" type="checkbox"/>							
	SRO-I <input type="checkbox"/>				SRO-I <input type="checkbox"/>				SRO-I <input type="checkbox"/>							
	SRO-U <input checked="" type="checkbox"/>				SRO-U <input type="checkbox"/>				SRO-U <input type="checkbox"/>							
	SCENARIO				SCENARIO				SCENARIO				SCENARIO			
	1	2	3		1	2	3		1	2	3		1	2	3	4
	S R O	S R O			A T C	B O P			B O P	A T C						
Interpret/Diagnose Events and Conditions	3, 4 5, 6 7, 8 9	3, 6 4, 7 5			3, 5 7, 8 9	4, 6 7, 9			4, 6 7	3, 5 8						
Comply With and Use Procedures (1)	2, 3 6, 7 8, 9	2, 3 4, 6 7, 8 9			2, 3 5, 7	1, 4 6, 7 9			1, 4 6, 7	2, 3 5, 8						
Operate Control Boards (2)	N/A	N/A			2, 3 5, 7 8, 9	1, 4 6, 7 9			1, 4 6, 7	2, 3 5, 8						
Communicate and Interact	1, 2 3, 4 5, 6 7, 8 9	1, 2 3, 4 5, 6 7, 8 9			2, 3 5, 7 8, 9	1, 4 6, 7 9			1, 4 6, 7	2, 3 5, 8						
Demonstrate Supervisory Ability (3)	1, 2 3, 4 5, 6 7, 8 9	1, 2 3, 4 5, 6 7, 8 9			N/A	N/A			N/A	N/A						
Comply With and Use Tech. Specs. (3)	3, 5 6	3, 4			N/A	N/A			N/A	N/A						

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.

## SET 2

Facility: DC Cook U1/U2      Date of Examination: 3/19/07      Operating Test No.: 2007301

Competencies	APPLICANTS															
	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 type="checkbox"/>							
	SCENARIO				SCENARIO				SCENARIO				SCENARIO			
	1	2	3		1	2	3		1	2	3		1	2	3	4
	S R O	A T C			A T C	S R O										
Interpret/Diagnose Events and Conditions	3, 4 5, 6 7, 8 9	3, 5 8			3, 5 7, 8 9	3, 6 4, 7 5										
Comply With and Use Procedures (1)	2, 3 6, 7 8, 9	2, 3 5, 8			2, 3 5, 7	2, 3 4, 6 7, 8 9										
Operate Control Boards (2)	N/A	2, 3 5, 8			2, 3 5, 7 8, 9	N/A										
Communicate and Interact	1, 2, 3, 4, 5, 6, 7, 8, 9	2, 3 5, 8			2, 3 5, 7 8, 9	1, 2 3, 4 5, 6 7, 8 9										
Demonstrate Supervisory Ability (3)	1, 2, 3, 4, 5, 6, 7, 8, 9	N/A			N/A	1, 2 3, 4 5, 6 7, 8 9										
Comply With and Use Tech. Specs. (3)	3, 5 6	N/A			N/A	3, 4										

## 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: <u>DC COOK</u>		Date of Exam: <u>3/26/2007</u>		Exam Level: RO <input checked="" type="checkbox"/> SRO <input checked="" type="checkbox"/>			
Item Description				Initial			
				a	b*	c*	
1. Questions and answers are technically accurate and applicable to the facility.				GR	Shw	dm	
2. a. NRC K/As are referenced for all questions. b. Facility learning objectives are referenced as available.				GR	Shw	dm	
3. SRO questions are appropriate in accordance with Section D.2.d of ES-401				GR	Shw	dm	
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 exams, consult the NRR OL program office).				GR	Shw	dm	
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 checked="" type="checkbox"/> the licensee certifies that there is no duplication; or <input type="checkbox"/> other (explain)				GR	Shw	dm	
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.		Bank	Modified	New	GR	Shw	dm
		53116	610	1619			
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 K/As support the higher cognitive levels; enter the actual RO / SRO question distribution(s) at right.		Memory	C/A		GR	Shw	dm
		35111	40114				
8. References/handouts provided do not give away answers or aid in the elimination of distractors.				GR	Shw	dm	
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.				GR	Shw	dm	
10. Question psychometric quality and format meet the guidelines in ES Appendix B.				GR	Shw	dm	
11. The exam contains the required number of one-point, multiple choice items; the total is correct and agrees with the value on the cover sheet.				GR	Shw	dm	
a. Author		Printed Name / Signature			Date		
b. Facility Reviewer (*)		JOHN T. CONRAD / John T. Conrad			1/19/2007		
c. NRC Chief Examiner (#)		Dan Walter / Dan Walter			1/23/2007		
d. NRC Regional Supervisor		Dell McNitt / Dell McNitt			02/22/07		
		Hironori Peterson / Hironori Peterson			3/14/07		
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.							