

THE EXAM PROCESS

Facility: <u>Prairie Island Nuclear Generating Plant</u>		Date of Examination: <u>May 14, 2012</u>
Developed by: Written - Facility <input type="checkbox"/> NRC <input checked="" type="checkbox"/> // Operating - Facility <input type="checkbox"/> NRC <input checked="" type="checkbox"/>		
Target Date*	Task Description (Reference)	Chief Examiner's Initials
-180	1. Examination administration date confirmed (C.1.a; C.2.a and b)	dm
-120	2. NRC examiners and facility contact assigned (C.1.d; C.2.e)	dm
-120	3. Facility contact briefed on security and other requirements (C.2.c)	dm
-120	4. Corporate notification letter sent (C.2.d)	dm
[-90]	[5. Reference material due (C.1.e; C.3.c; Attachment 2)]	dm
[-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)	dm
[-70]	[7. Examination outline(s) reviewed by NRC and feedback provided to facility licensee (C.2.h; C.3.e)]	n/a
[-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)	dm
-30	9. Preliminary license applications (NRC Form 398s) due (C.1.i; C.2.g; ES-202)	dm
-14	10. Final license applications due and Form ES-201-4 prepared (C.1.i; C.2.i; ES-202)	dm
-14	11. Examination approved by NRC supervisor for facility licensee review (C.2.h; C.3.f)	dm
-14	12. Examinations reviewed with facility licensee (C.1.j; C.2.f and h; C.3.g)	dm
-7	13. Written examinations and operating tests approved by NRC supervisor (C.2.i; C.3.h)	dm
-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 4; ES-202, C.2.e; ES-204)	dm
-7	15. Proctoring/written exam administration guidelines reviewed with facility licensee (C.3.k)	dm
-7	16. Approved scenarios, job performance measures, and questions distributed to NRC examiners (C.3.i)	dm
<p>* 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.</p> <p>[Applies only] [Does not apply] to examinations prepared by the NRC.</p>		

Corporate Notification Letter



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

June 9, 2010

Mr. Larry Weber
Senior Vice President and
Chief Nuclear Officer
Indiana Michigan Power Company
Nuclear Generation Group
One Cook Place
Bridgman, MI 49106

SUBJECT: OPERATOR LICENSING EXAMINATION APPROVAL

Dear Mr. Weber:

The purpose of this letter is to confirm the final arrangements for the upcoming operator licensing examinations at the Donald C. Cook Nuclear Power Plant.

The U. S. Nuclear Regulatory Commission (NRC) has completed its review of the operator license applications in connection with this examination and separately provided a list of approved applicants to Mr. Randy F. Ebright, Sr., Training Manager, Donald C. Cook Nuclear Power Plant. Note that any examination waivers and application denials have been addressed in separate correspondence.

The NRC has approved the subject examinations and hereby authorizes you to administer the written examinations in accordance with Revision 9, Supplement 1, of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors" during the weeks of June 28 or July 5, 2010. The NRC staff will administer the operating tests during the weeks of June 21 and 28, 2010. This examination has undergone extensive review by my staff and representatives responsible for licensed operator training at your facility. Based on this review I have concluded that the examination meets the guidelines of NUREG-1021 for content, operational, and discrimination validity. By administering this examination, you also agree that it meets NUREG-1021 guidelines, and is appropriate for measuring the qualifications of licensed operator applicants at your facility. If you determine that this examination is not appropriate for licensing operators at your facility, do not administer the examination and contact me at 630-629-9707.

Please contact your Chief Examiner, Raymond Walton at 630-829-9536, if you have any questions or identify any errors or changes in the license level (RO or SRO) or type of examination (partial or complete written examination and/or operating test) specified for each applicant.

Outline Submission (75 Day)

ES-201, Rev. 9

Examination Outline Quality Checklist

Form ES-201-2

Facility: _____		Date of Examination: _____		
Item	Task Description	Initials		
		a	b*	c#
1. W R I T T E N	a. Verify that the outline(s) fit(s) the appropriate model, in accordance with ES-401.			
	b. Assess whether the outline was systematically and randomly prepared in accordance with Section D.1 of ES-401 and whether all K/A categories are appropriately sampled.			
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.			
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.			
2. S I M U L A T O R	a. Using Form ES-301-S, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, technical specifications, and major transients.			
	b. Assess whether there are enough scenario sets (and spares) to test the projected number and mix of applicants in accordance with the expected crew composition and rotation schedule without compromising exam integrity, and ensure that each applicant can be tested using at least one new or significantly modified scenario, that no scenarios are duplicated from the applicants' audit test(s), and that scenarios will not be repeated on subsequent days.			
	c. To the extent possible, assess whether the outline(s) conform(s) with the qualitative and quantitative criteria specified on Form ES-301-4 and described in Appendix D.			
3. W / T	a. Verify that the systems walk-through outline meets the criteria specified on Form ES-301-2: (1) the outline(s) contain(s) the required number of control room and in-plant tasks distributed among the safety functions as specified on the form (2) task repetition from the last two NRC examinations is within the limits specified on the form (3) no tasks are duplicated from the applicants' audit test(s) (4) the number of new or modified tasks meets or exceeds the minimums specified on the form (5) the number of alternate path, low-power, emergency, and RCA tasks meet the criteria on the form.			
	b. Verify that the administrative outline meets the criteria specified on Form ES-301-1: (1) the tasks are distributed among the topics as specified on the form (2) at least one task is new or significantly modified (3) no more than one task is repeated from the last two NRC licensing examinations			
	c. Determine if there are enough different outlines to test the projected number and mix of applicants and ensure that no items are duplicated on subsequent days.			
4. G E N E R A L	a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam sections.			
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.			
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.			
	d. Check for duplication and overlap among exam sections.			
	e. Check the entire exam for balance of coverage.			
	f. Assess whether the exam fits the appropriate job level (RO or SRO).			
a. Author _____		Printed Name/Signature _____ Date _____		
b. Facility Reviewer (*) _____		_____		
c. NRC Chief Examiner (#) _____		_____		
d. NRC Supervisor _____		_____		
Note: # Independent NRC reviewer Initial Items in Column "c"; chief examiner concurrence required.				

Facility: <u>PINGP, Units 1 and 2</u>		Date of Examination: <u>May 14 - 25, 2012</u>
Examination Level: RO <input checked="" type="checkbox"/> SRO <input type="checkbox"/>		Operating Test Number: <u>2012301</u>
Administrative Topic (see Note)	Type Code*	Describe activity to be performed
Conduct of Operations ADMIN-51	D, R	Perform daily Reactor Coolant System leakage test.
Conduct of Operations ADMIN-68	N, R	Transfer RHR System trouble alarm to FLANGE setpoints.
Equipment Control ADMIN-69	N, R	Approve a clearance order with errors.
Radiation Control ADMIN-71	N, R	Verification of radiation work permit limits.
Emergency Procedures/Plan		None.
NOTE: All items (5 total) are required for SROs. RO applicants require only 4 items unless they are retaking only the administrative topics, when all 5 are required.		
* Type Codes & Criteria: (C)ontrol room, (S)imulator, or Class(R)oom (D)irect from bank (≤ 3 for ROs; ≤ 4 for SROs & RO retakes) (N)ew or (M)odified from bank (≥ 1) (P)revious 2 exams (≤ 1 ; randomly selected)		

Facility: <u>Prairie Island</u>		Date of Examination: <u>May 14 – 25, 2012</u>
Exam Level: RO <input checked="" type="checkbox"/> SRO <input type="checkbox"/> SRO(U) <input type="checkbox"/>		Operating Test No.: <u>2012301</u>
Control Room Systems [@] (8 for RO); (7 for SRO-I); (2 or 3 for SRO-U, including 1 ESF)		
System / JPM Title	Type Code*	Safety Function
a. VC/Manual makeup to the RWST.	D, S	2
b. SI/Transfer to recirculation with failure of one train.	D, S, A, L	3
c. RCP/Establish support conditions and start a RCP.	D, S, L	4P
d. CNMT/Perform Attachment L, Containment Isolation Actuation Failure.	D, S, A	5
e. EDG/Take D1 Diesel Generator offline per SP 1093.	N, S, EN	6
f. RD/Pressure Instrument PT-485 fails low.	D, S	7
g. CC/Swap Component Cooling Water Pumps.	D, S	8
h. WG/Response to high radiation alarm during waste gas release.	M, S, A	9
In-Plant Systems [@] (3 for RO); (3 for SRO-I); (3 or 2 for SRO-U)		
i. RPS/Locally Trip The Reactor And The Turbine Generator.	D, E, A	1
j. EDG/Perform local emergency start of a diesel generator.	D, E, A, EN	6
k. HC/Startup the Hydrogen Recombiner.	D, E, L, R	5
[@] All RO and SRO-I control room (and in-plant) systems must be different and serve different safety functions; all 5 SRO-U systems must serve different safety functions; in-plant systems and functions may overlap those tested in the control room.		
* Type Codes	Criteria for RO / SRO-I / SRO-U	
(A)lternate path	4-6 / 4-6 / 2-3	
(C)ontrol room	≤ 9 / ≤ 8 / ≤ 4	
(D)irect from bank	≥ 1 / ≥ 1 / ≥ 1	
(E)mergency or abnormal in-plant	- / - / ≥ 1 (control room system)	
(EN)gineered safety feature	≥ 1 / ≥ 1 / ≥ 1	
(L)ow-Power / Shutdown	≥ 2 / ≥ 2 / ≥ 1	
(N)ew or (M)odified from bank including 1(A)	≤ 3 / ≤ 3 / ≤ 2 (randomly selected)	
(P)revious 2 exams	≥ 1 / ≥ 1 / ≥ 1	
(R)CA		
(S)imulator		

ES-301 Transient and Event Checklist Form ES-301-5

Facility: PINGP, Units 1 and 2			Date of Exam: May 14-25, 2012			Operating Test Number: 2012301											
A P P L I C A N T	E V E N T T Y P E	Scenarios (For Crew 1 – SRO-U ₁ , RO ₁ , RO ₂)												T O T A L	M I N I M U M (*)		
		1			2			3			4						
		CREW POSITION			CREW POSITION			CREW POSITION			CREW POSITION						
		S R O	A T C	B O P	S R O	A T C	B O P	S R O	A T C	B O P	S R O	A T C	B O P				
		R	I	U													
RO	RX													0	1	1	0
<input type="checkbox"/> SRO-I	NOR	2			2									2	1	1	1
<input type="checkbox"/> SRO-U	I/C	3,4,5, 7			3,4,6, 7,8									9	4	4	2
<input checked="" type="checkbox"/> SRO-U	MAJ	6			5									2	2	2	1
	TS	2,5			3,4									4	0	2	2
RO	RX		1											1	1	1	0
<input checked="" type="checkbox"/> SRO-I	NOR					2								1	1	1	1
<input type="checkbox"/> SRO-U	I/C		3,4,5			5,6,8								6	4	4	2
<input type="checkbox"/> SRO-U	MAJ		6			7								2	2	2	1
	TS													0	0	2	2
RO	RX				2									1	1	1	0
<input checked="" type="checkbox"/> SRO-I	NOR			1										1	1	1	1
<input type="checkbox"/> SRO-U	I/C			5,7	1,4									4	4	4	2
<input type="checkbox"/> SRO-U	MAJ			6	7									2	2	2	1
	TS													0	0	2	2
RO	RX													1	1	1	0
<input type="checkbox"/> SRO-I	NOR													1	1	1	1
<input type="checkbox"/> SRO-U	I/C													4	4	4	2
<input type="checkbox"/> SRO-U	MAJ													2	2	2	1
	TS													0	2	2	2

Instructions:

- Check the applicant level and enter the operating test number and Form ES-D-1 event numbers for each event type; TS are not applicable for RO applicants. ROs must serve in both the "at-the-controls (ATC)" and "balance-of-plant (BOP)" positions; Instant SROs must do one scenario, including at least two instrument or component (I/C) malfunctions and one major transient, in the ATC position.
- Reactivity manipulations may be conducted under normal or controlled abnormal conditions (refer to Section D.5.d) but must be significant per Section C.2.a of Appendix D. (*) Reactivity and normal evolutions may be replaced with additional instrument or component malfunctions on a 1-for-1 basis.
- Whenever practical, both instrument and component malfunctions should be included; only those that require verifiable actions that provide insight to the applicant's competence count toward the minimum requirements specified for the applicant's license level in the right-hand columns.

Facility: Prairie Island Nuclear Generating Plant U1/U2															Date of Exam: May/22, 2012				
Tier	Group	RO K/A Category Points												SRO-Only Points					
		K 1	K 2	K 3	K 4	K 5	K 6	A 1	A 2	A 3	A 4	G *	Total	A2	G*	Total			
1. Emergency & Abnormal Plant Evolution	1	3	3	3				3	3			3	18	3	3	6			
	2	1	1	1		N/A		2	2		N/A	2	9	2	2	4			
	Tier Totals	4	4	4				5	5			5	27	5	5	10			
2. Plant Systems	1	2	2	3	2	3	2	3	3	3	3	2	28	2	3	5			
	2	1	1	0	1	1	1	1	1	1	1	1	10	1	1	3			
	Tier Totals	5	4	3	4	3	2	2	3	4	4	4	38	4	4	8			
3. Generic Knowledge and Abilities Categories		1	2	3	4	10	1	2	3	4	7								
		3	2	3	2		2	2	2	1									

Note:

1. Ensure that at least two topics from every applicable K/A category are sampled within each tier of the RO and SRO-only outlines (i.e., except for one category in Tier 3 of the SRO-only outline, the "Tier Totals" in each K/A category shall not be less than two).
2. The point total for each group and tier in the proposed outline must match that specified in the table. The final point total for each group and tier may deviate by ± 1 from that specified in the table based on NRC revisions. The final RO exam must total 75 points and the SRO-only exam must total 25 points.
3. Systems/evolutions within each group are identified on the associated outline; systems or evolutions that do not apply at the facility should be deleted and justified; operationally important, site-specific systems/evolutions that are not included on the outline should be added. Refer to Section D.1.b of ES-401 for guidance regarding the elimination of inappropriate K/A statements.
4. Select topics from as many systems and evolutions as possible; sample every system or evolution in the group before selecting a second topic for any system or evolution.
5. Absent a plant-specific priority, only those K/As having an importance rating (IR) of 2.5 or higher shall be selected. Use the RO and SRO ratings for the RO and SRO-only portions, respectively.
6. Select SRO topics for Tiers 1 and 2 from the shaded systems and K/A categories.
- 7.* The generic (G) K/As in Tiers 1 and 2 shall be selected from Section 2 of the K/A Catalog, but the topics must be relevant to the applicable evolution or system. Refer to Section D.1.b of ES-401 for the applicable K/As.
8. On the following pages, enter the K/A numbers, a brief description of each topic, the topics' importance ratings (IRs) for the applicable license level, and the point totals (#) for each system and category. Enter the group and tier totals for each category in the table above; if fuel handling equipment is sampled in other than Category A2 or G* on the SRO-only exam, enter it on the left side of Column A2 for Tier 2, Group 2 (Note #1 does not apply). Use duplicate pages for RO and SRO-only exams.
9. For Tier 3, select topics from Section 2 of the K/A catalog, and enter the K/A numbers, descriptions, IRs, and point totals (#) on Form ES-401-3. Limit SRO selections to K/As that are linked to 10 CFR 55.43.

Facility: PINGP Units 1 and 2			Date of Exam: May 14-25, 2012			
Category	K/A #	Topic	RO		SRO-Only	
			IR	#	IR	#
1. Conduct of Operations	2.1.2	Knowledge of operator responsibilities during all modes of plant operation.	4.1	66		
	2.1.23	Ability to perform specific system and integrated plant procedures during all modes of plant operation.	4.3	67		
	2.1.39	Knowledge of conservative decision making practices.	3.6	68		
	2.1.43	Ability to use procedures to determine the effects on reactivity of plant changes, such as reactor coolant system temperature, secondary plant, fuel depletion, etc.			4.3	94
	2.1.5	Ability to use procedures related to shift staffing, such as minimum crew complement, overtime limitations, etc.			3.9	95
	2.1.					
	Subtotal			3		2
2. Equipment Control	2.2.4	Ability to explain the variations in control board/control room layouts, systems, instrumentation, and procedural actions between units at a facility.	3.6	69		
	2.2.43	Knowledge of the process used to track inoperable alarms.	3.0	70		
	2.2.25	Knowledge of the bases in Technical Specifications for limiting conditions for operations and safety limits.			4.2	96
	2.2.1	Ability to perform pre-startup procedures for the facility, including operating those controls associated with plant equipment that could affect reactivity.			4.4	97
	2.2.					
	Subtotal			2		2
3. Radiation Control	2.3.15	Knowledge of radiation monitoring systems, such as fixed radiation monitors and alarms, portable survey instruments, personnel monitoring equipment, etc.	2.9	71	3.1	98
	2.3.13	Knowledge of radiological safety procedures pertaining to licensed operator duties, such as response to radiation monitor alarms, containment entry requirements, fuel handling responsibilities, access to locked high-radiation areas, aligning filters, etc.	3.4	72		
	2.3.5	Ability to use radiation monitoring systems, such as fixed radiation monitors and alarms, portable survey instruments, personnel monitoring equipment, etc.	2.9	73		
	2.3.7	Ability to comply with radiation work permit requirements during normal or abnormal conditions.			3.6	99
	2.3.					
	Subtotal			3		2
4. Emergency Procedures / Plan	2.4.1	Knowledge of EOP entry conditions and immediate action steps.	4.6	74		
	2.4.14	Knowledge of general guidelines for EOP usage.	3.8	75		
	2.4.5	Knowledge of the organization of the operating procedures network for normal, abnormal, and emergency evolutions.			4.3	100
	2.4.					
	Subtotal			2		1
Tier 3 Point Total				10		7

Appendix D

Scenario Outline

Form ES-D-1

Facility: Prairie IslandScenario No.: 1Op-Test No.: 2012301Examiners: D. McNeil

Operators: _____

M. BialbyD. ReeserInitial Conditions: Power is level near 10%. The main generator is synched to the grid @ 10 MWe.Turnover: The Crew will prepare to perform a power ascension to 15% power and complete the remainder of 1C1.2 actions including transferring from the M to R sources.

Event No.	Malf. No.	Event Type*	Event Description
1		R (RO)	Raise power to 15%
2		N (SRO) (BOP)	Transfer on-site loads from the M to R source
3		I (RO) TS (SRO)	Pressurizer level channel fails high
4		C (RO)	11 CV Pump trips.
5		I (RO/ BOP) TS (SRO)	N43 Power Range NI Fails Low
6		M (ALL)	Turbine Trip occurs - Loss of All AC Power (Station Blackout)
7		C (BOP, SRO)	TDAFW Pump Auto Start Failure

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor



Indiana Michigan Power
One East Pace
Bloomington, IN 47403
IndianaMichiganPower.com

March 29, 2010

U. S. Nuclear Regulatory Commission
ATTN: Mr. Raymond K. Walton
Region III Examiner
2113 Warrenville Road, Suite 210
Lisle, Illinois 60532-4352

Donald C. Cook Nuclear Plant Units 1 and 2
2010 NRC EXAMINATION OUTLINE SUBMITTAL

Enclosed you will find a copy of the Initial License Examination Outline for the planned August 2010 examination at Donald C. Cook Nuclear Plant (CNP). Also enclosed is the proposed examination schedule, based on 1 Senior Reactor Operator (SRO) (I), 5 SRO (U), and 8 Reactor Operator (RO) candidates. The examination is being prepared in accordance with NUREG 1021, Revision 9, Supplement 1.

The following items are enclosed in the sealed envelope:

- 1) Form ES-201-2 Examination Outline Quality Checklist
- 2) Form ES-201-3 Examination Security Agreement
- 3) Draft CNP 2010 ILT Examination Schedule
- 4) Written Examination Sample Methodology
- 5) Probabilistic Risk Assessment Input
- 6) Scenario Outlines Form ES-D-1 COOK2010-01
- 7) Scenario Outlines Form ES-D-1 COOK2010-02
- 8) Scenario Outlines Form ES-D-1 COOK2010-03
- 9) Scenario Outlines Form ES-D-1 COOK2010-04
- 10) ES-301-4, Simulator Checklist
- 11) ES-301-5, Transient and Event Checklist Crews 1, 2, & 3
- 12) ES-301-5, Transient and Event Checklist Crew 4
- 13) ES-301-5, Transient and Event Checklist Crew 5
- 14) ES-301-6, Competencies Checklist Crews 1, 2, & 3
- 15) ES-301-6, Competencies Checklist Crew 4
- 16) ES-301-6, Competencies Checklist Crew 5
- 17) ES-301-2, SRO (I) JPM Outline
- 18) ES-301-2, SRO (U) JPM Outline
- 19) ES-301-2, RO JPM Outline
- 20) ES-301-1, SRO Admin JPM Outline
- 21) ES-301-1, RO Admin JPM Outline
- 22) PWR Exam Outline, Form ES-401-2 (SRO)
- 23) Generic K/A Outline, Form ES-401-3 (SRO)
- 24) PWR Exam Outline, Form ES-401-2 (RO)

RECEIVED MAR 30 2010

45 Day Submission The Proposed Examination

JPMs

Scenarios

Written Examination

Forms, Forms, Forms

April 30, 2010

U. S. Nuclear Regulatory Commission
ATTN: Mr. Raymond K. Walton
Region III Examiner
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352

Donald C. Cook Nuclear Plant Units 1 and 2
2010 INITIAL LICENSE EXAMINATION

Enclosed you will find a copy of the Initial License Examination for the planned June 2010 Examination at Donald C. Cook Nuclear Plant (CNP).

The following items are enclosed in the sealed envelope:

- 1) CNP 2010 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) COOK2010-01
 - b) COOK2010-02
 - c) COOK2010-03
 - d) COOK2010-04
- 5) ES-301-4 Simulator Checklist
- 6) ES-301-5 Transient and Event Checklist Crews 1, 2, & 3
- 7) ES-301-5 Transient and Event Checklist Crew 4
- 8) ES-301-5 Transient and Event Checklist Crew 5
- 9) ES-301-6 Competencies Checklist Crews 1, 2, & 3
- 10) ES-301-6 Competencies Checklist Crew 4
- 11) ES-301-6 Competencies Checklist Crew 5
- 12) ES-301-2 System JPM Outlines & Exams
 - a) ES-301-2 SRO(I) JPM Outline
 - b) ES-301-2 SRO(U) JPM Outline
 - c) ES-301-2 RO JPM Outline
 - d) NRC2010-SIM01
 - e) NRC2010-SIM02
 - f) NRC2010-SIM03
 - g) NRC2010-SIM04
 - h) NRC2010-SIM05
 - i) NRC2010-SIM06
 - j) NRC2010-SIM07
 - k) NRC2010-SIM08

MAY 3 2010

Facility: <u>DC COOK/PANT UNIT 1 & UNIT 2</u> Date of Examination: <u>4/21/10</u> Operating Test Number: <u>CRCWS 1-5</u>		Initials		
1. General Criteria		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).	GR	SS	RW
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	GR	SS	RW
c.	The operating test shall not duplicate items from the applicants' audit test(s). (see Section D.1.8.)	GR	SS	RW
d.	Overlap with the written examination and between different parts of the operating test is within acceptable limits.	GR	SS	RW
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	GR	SS	RW
2. Walk-Through Criteria		-	-	-
a.	Each JFM includes the following, as applicable: <ul style="list-style-type: none"> • initial conditions • initiating cues • references and tools, including associated procedures • reasonable and validated time limits (average time allowed for completion) and specific designation if deemed to be time critical by the facility licensee • operationally important specific performance criteria that include: <ul style="list-style-type: none"> - detailed expected actions with exact criteria and nomenclature - system response and other examiner cues - statements describing important observations to be made by the applicant - criteria for successful completion of the task - identification of critical steps and their associated performance standards - restrictions on the sequence of steps, if applicable 	GR	SS	RW
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.	GR	SS	RW
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.		GR	SS	RW
Printed Name / Signature		Date		
a.	Author <u>JOHN T. CONRAD / John T. Conrad</u>	<u>4/30/10</u>		
b.	Facility Reviewer(s) <u>SCOTT D. BEHRENS / Scott D. Behrens</u>	<u>4/30/10</u>		
c.	NRC Chief Examiner (R) <u>RAYMOND H. WILSON / Raymond H. Wilson</u>	<u>5/13/2010</u>		
d.	NRC Supervisor <u>William J. Peterson / William J. Peterson</u>	<u>6/9/10</u>		
NOTE: <ul style="list-style-type: none"> • The facility signature is not applicable for NRC developed tests. † Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required. 				

Facility <u>COOK PLANT UNIT 1 & UNIT 2</u> Date of Exam <u>4/27/10</u> Scenario Number: <u>1 / 2 / 3 / 4</u> Operating Test No. <u>CREWS 1-5</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 cause the operators into expected events.	CTR 83 RHW
2. The scenarios consist mostly of related events.	CTR 83 RHW
3. Each event description consists of <ul style="list-style-type: none"> the point in the scenario when it is to be initiated the malfunction(s) that are entered to initiate the event the symptoms/cues that will be visible to the crew the expected operator actions (by shift position) the event termination point (if applicable) 	CTR 83 RHW
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.	CTR 83 RHW
5. The events are valid with regard to physics and thermodynamics.	CTR 83 RHW
6. Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	CTR 83 RHW
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.	CTR 83 RHW
8. The simulator modeling is not altered.	CTR 83 RHW
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.	CTR 83 RHW
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.	CTR 83 RHW
11. All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	CTR 83 RHW
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).	CTR 83 RHW
13. The level of difficulty is appropriate to support licensing decisions for each crew position.	CTR 83 RHW
Target Quantitative Attributes (Per Scenario; See Section D.5.d)	Actual Attributes
1. Total malfunctions (5-8)	6 : 6 : 6 : 6 CTR 83 RHW
2. Malfunctions after EOP entry (1-2)	2 : 2 : 2 : 2 CTR 83 RHW
3. Abnormal events (2-4)	4 : 4 : 4 : 3 CTR 83 RHW
4. Major transients (1-2)	1 : 1 : 2 : 1 CTR 83 RHW
5. EOPs entered/requiring substantive actions (1-2)	1 : 1 : 2 : 1 CTR 83 RHW
6. EOP contingencies requiring substantive actions (0-2)	0 : 1 : 1 : 0 CTR 83 RHW
7. Critical tasks (2-3)	2 : 2 : 2 : 2 CTR 83 RHW

Facility: <u>DC Cook</u>		Date of Examination: <u>06/21/2010</u>				Operating Test No.: <u>Crews 1, 2, & 3</u>										
Competencies	APPLICANTS															
	RO <input type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input checked="" type="checkbox"/>				RO <input checked="" type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input type="checkbox"/>				RO <input checked="" type="checkbox"/> SRO-I <input 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			
	SRO 1	SRO 2			AIC 1	BOP 2			BOP 1	AIC 2			1	2	3	4
Interpret/Diagnose Events and Conditions	3,4,5, 6,7,8, 9	3,4,5, 6,7,8, 9			3,5,7	3,6,7, 9			5,6,7	5,5,7						
Comply With and Use Procedures (1)	2,3,4, 5,6,7, 8,9	2,3,4, 5,6,7, 8,9			2,3,5, 7	1,3,6, 7,8,9			1,4,6, 7	2,4,5, 7						
Operate Control Boards (2)					1,2,5, 7	1,2,6, 7,8,9			1,4,6, 7	2,4,5, 7						
Communicate and Interact	2,3,4, 5,6,7, 8,9	2,3,4, 5,6,7, 8,9			2,3,5, 7	1,3,6, 7,9			1,4,6, 7	2,4,5, 7						
Demonstrate Supervisory Ability (3)	2,3,4, 5,6,7, 8,9	2,3,4, 5,6,7, 8,9														
Comply With and Use Tech. Specs. (3)	3,6	3,4,5, 8														
Notes: (1) Includes Technical Specification compliance for an RO. (2) Optional for an SRO-U. (3) Only applicable to SROs																

Instructions:

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

Facility: <u>COOK PLANT UNIT 1 & UNIT 2</u> Date of Exam: <u>6/21/10</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.	<u>QRL</u>	<u>SS</u>	<u>RKW</u>
2. a. NRC KIAs are referenced for all questions. b. Facility training objectives are referenced as available.	<u>QRL</u>	<u>SS</u>	<u>RKW</u>
3. SRO questions are appropriate in accordance with Section D.2.d of CS 401.	<u>QRL</u>	<u>SS</u>	<u>RKW</u>
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 NRC OL program office.			<u>RKW</u>
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 checked="" 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>QRL</u>	<u>SS</u>	<u>RKW</u>
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 <u>48/15</u>	Modified <u>11/5</u>	New <u>16/5</u>
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 KIAs support the higher cognitive levels; enter the actual RO / SRO question distribution(s) at right.	Memory <u>36/9</u>	CA <u>39/16</u>	
8. References/handouts provided do not give away answers or aid in the elimination of distractors.	<u>QRL</u>	<u>SS</u>	<u>RKW</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>QRL</u>	<u>SS</u>	<u>RKW</u>
10. Question psychometric quality and format meet the guidelines in CS Appendix G.	<u>QRL</u>	<u>SS</u>	<u>RKW</u>
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.	<u>QRL</u>	<u>SS</u>	<u>RKW</u>
Printed Name / Signature: <u>JOHN T. CANADY</u> Date: <u>4/23/10</u> a. Author: <u>SCOTT D. BEHNS</u> <u>4/20/10</u> b. Facility Reviewer (*): <u>MARK K. WILSON</u> <u>5/3/10</u> c. NRC Chief Examiner (#): <u>RAYMOND J. WILSON</u> <u>6/1/10</u> d. NRC Regional Supervisor: <u>JOHN T. CANADY</u>			
Note: * The facility reviewer's initials/signature are not applicable for NRC-developed examinations. # Independent NRC reviewer initial from Column "c"; chief examiner concurrence required.			

JPM- Best Format
Or,
The One I Like Best

Op-Test No.: 2012301 Scenario No.: 1 Event No.: 1 Page 1 of

Event Description: _____

[illegible]

The Final, As-Administered Examination

Provide a magnetic copy of the examination administered to the applicants. This copy should include all changes made to the examination after on-site validation.

Post-Examination Activities

Grading,
Forms, Forms, Forms

Have each applicant sign their examination coversheet. Don't put any grades in the spaces on the coversheets. Let the Chief Examiner make the mistakes.

Copy the answer sheets before grading. Send the cover sheets, the original exam grading sheets and the copies of the grading sheets to the Chief Examiner.

1. Pre-Examination

I acknowledge that I have acquired specialized knowledge about the NRC licensing examinations scheduled for the week(s) of _____ 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. _____	_____	_____	_____	_____	_____	_____
2. _____	_____	_____	_____	_____	_____	_____
3. _____	_____	_____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____	_____	_____
5. _____	_____	_____	_____	_____	_____	_____
6. _____	_____	_____	_____	_____	_____	_____
7. _____	_____	_____	_____	_____	_____	_____
8. _____	_____	_____	_____	_____	_____	_____
9. _____	_____	_____	_____	_____	_____	_____
10. _____	_____	_____	_____	_____	_____	_____
11. _____	_____	_____	_____	_____	_____	_____
12. _____	_____	_____	_____	_____	_____	_____
13. _____	_____	_____	_____	_____	_____	_____
14. _____	_____	_____	_____	_____	_____	_____
15. _____	_____	_____	_____	_____	_____	_____

NOTES:

Facility: _____		Date of Exam: _____		Exam Level: RO <input type="checkbox"/> SRO <input type="checkbox"/>	
Item Description	Initials				
	a	b	c		
1. Clean answer sheets copied before grading					
2. Answer key changes and question deletions justified and documented					
3. Applicants' scores checked for addition errors (reviewers spot check > 25% of examinations)					
4. Grading for all borderline cases (80 \pm 2% overall and 70 or 80, as applicable, \pm 4% on the SRO-only) reviewed in detail					
5. All other failing examinations checked to ensure that grades are justified					
6. Performance on missed questions checked for training deficiencies and wording problems; evaluate validity of questions missed by half or more of the applicants					
Printed Name/Signature		Date			
a. Grader _____	_____				
b. Facility Reviewer(*) _____	_____				
c. NRC Chief Examiner (*) _____	_____				
d. NRC Supervisor (*) _____	_____				
(*) The facility reviewer's signature is not applicable for examinations graded by the NRC; two independent NRC reviews are required.					

Post Examination Comments

Complete a thorough review of the administered written examination. Submit comments to the NRC within 5 working days. If additional time is needed, as the chief examiner.

Your review should be complete and thorough. Even if it results in the failure of one of your applicants, you should submit complete, well-documented comments.

If the NRC becomes aware that questions should have been deleted, or had a different correct answer and the facility has not provided that information, it could result in a significant violation because it impacts our ability to regulate, and may be determined to be wilfull.