

2010 PRAIRIE ISLAND NUCLEAR GENERATING PLANT

INITIAL EXAMINATION

PROPOSED EXAM FILES

ENCLOSURE WITHHELD FROM PUBLIC DISCLOSURE IN ACCORDANCE WITH
NUREG-1021 UNTIL AFTER THE EXAMINATIONS ARE COMPLETE.



JAN 20 2010

L-PI-10-002
NUREG-1021

Regional Administrator, Region III
U S Nuclear Regulatory Commission
2443 Warrenville Road, Suite 210
Lisle, Illinois 60532-4352

Prairie Island Nuclear Generating Plant Units 1 and 2
Dockets 50-282 and 50-306
License Nos. DPR-42 and DPR-60

Prairie Island Nuclear Generating Plant (PINGP) Initial Operator Licensing Examination
Materials

Reference: 1. Nuclear Regulatory Commission (NRC) letter to Mr. Mark A. Schimmel,
"Prairie Island Nuclear Generating Plant, Units 1 and 2, Confirmation of
Initial License Examination," dated November 5, 2009, Accession
Number ML093170483.

In response to Reference 1, Northern States Power Company, a Minnesota Corporation (NSPM), submits the written examinations, operating tests, and supporting reference materials (Enclosure 1) for the initial operator licensing examinations to be administered at PINGP the weeks of March 15 and 22, 2010. This information is provided in accordance with guideline ES-201 of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9, Supplement 1.

NUREG-1021 physical security requirements state that the enclosed examination materials shall be withheld from public disclosure until after the examinations are complete.

Summary of Commitments

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



Mark A. Schimmel
Site Vice President, Prairie Island Nuclear Generating Plant Units 1 and 2
Northern States Power Company - Minnesota

Enclosure

cc: Charles Zoia, US NRC Region III, with enclosure
Hironori Peterson, US NRC Region III, without enclosure

**ENCLOSURE WITHHELD FROM PUBLIC DISCLOSURE IN ACCORDANCE WITH
NUREG-1021 UNTIL AFTER THE EXAMINATIONS ARE COMPLETE.**

ENCLOSURE 1

PRAIRIE ISLAND NUCLEAR GENERATING PLANT

Initial Operator Licensing Examination Materials

Form Number	Title or Description	Number of Pages
ES-201-2	Examination Outline Quality Checklist	1
ES-301-3	Operating Exam Quality Checklist	1
ES-301-4	Simulator Scenario Quality Checklist	1
ES-401-6	Written Exam Quality Checklist	1
	Changes on ES-301-5 Transient and Event Checklist Since 75 Day Submittal	1
ES-301-5	Transient and Event Checklist	3
	Changes on ES-301-6 Competencies Checklist Since 75 Day Submittal	1
ES-301-6	Competencies Checklists	3
	Operational Job Performance Measures (JPMs)	317
	Administrative JPMs	98
	Simulator Scenarios	105
ES-401-7	RO Written Exam Cover Sheet	1
	RO Written Exam (Ready to Give with Handouts)	76
	RO Written Exam Key with supportive references	365
ES-401-8	SRO Written Exam Cover Sheet	1
	SRO Written Exam (Ready to Give with Handouts)	37
	SRO Written Exam Key with supportive references	138

Form Number	Title or Description	Number of Pages
ES-301-1	Administrative Topics Outline (RO)	2
	Changes on ES-301-1 Administrative Topics Outline (SRO) Since 75 Day Submittal	1
ES-301-1	Administrative Topics Outline (SRO)	2
ES-301-2	Control Room / In-Plant System Outline (RO)	2
ES-301-2	Control Room / In-Plant System Outline (SRO-I)	2
ES-301-2	Control Room / In-Plant System Outline (SRO-U)	2
	Changes on Appendix D Scenario Outlines ES-D-1 Since 75 Day Submittal	1
ES-D-1	Scenario Outline (Scenarios 1-4)	8
ES-401-2	Pressurized-Water Reactor (PWR) Exam Outline (RO)	7
ES-401-3	Pressurized-Water Reactor (PWR) Exam Outline (RO) Generic Knowledge and Abilities Outline	1
ES-401-2	Pressurized-Water Reactor (PWR) Exam Outline (SRO)	5
ES-401-3	Pressurized-Water Reactor (PWR) Exam Outline (SRO) Generic Knowledge and Abilities Outline	1
ES-401-4	Record of Rejected Knowledge and Abilities (K/A)	1
QF-1071-01	Master Security Agreement	1
QF-1071-02	Limited Security Agreement	7

Facility: <u>PRAIRIE ISLAND</u>		Date of Examination: <u>MARCH 2010</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).	To	A	MEB	
b.	There is no day-to-day repetition between this and other operating tests to be administered during this examination.	To	A	MEB	
c.	The operating test shall not duplicate items from the applicants' audit test(s). (see Section D.1.a.)	To	A	cm# *	
d.	Overlap with the written examination and between different parts of the operating test is within acceptable limits.	To	A	cm	
e.	It appears that the operating test will differentiate between competent and less-than-competent applicants at the designated license level.	To	A	MEB	
2. Walk-Through Criteria		--	--	--	
a.	Each JPM 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 	To	A	MEB	
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.	To	A	MEB	
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.		To	A	MEB	
	Printed Name / Signature	Date			
a.	Author <u>TRAVIS OURET / Travis Ouret</u>	<u>1/12/10</u>			
b.	Facility Reviewer(*) <u>James D. Lash / James D. Lash</u>	<u>1/13/10</u>			
c.	NRC Chief Examiner (#) <u>Charles Zola / Charles D Zola</u>	<u>3/3/10</u>			
d.	NRC Supervisor <u>Hironori Peterson / Hironori Peterson</u>	<u>3/3/10</u>			
NOTE: * The facility signature is not applicable for NRC-developed tests. # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required.					

* This will be verified during onsite validation during the week of 2/22/10

Facility: Prairie Island		Date of Exam: Mar. 2010		Scenario Numbers: 1 / 2 / 3 / 4		Operating Test No.: 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.	Jo	A	com			
2.	The scenarios consist mostly of related events.	Jo	A	com			
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) 	Jo	A	com			
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.	Jo	A	com			
5.	The events are valid with regard to physics and thermodynamics.	Jo	A	com			
6.	Sequencing and timing of events is reasonable, and allows the examination team to obtain complete evaluation results commensurate with the scenario objectives.	Jo	A	com			
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.	Jo	A	com			
8.	The simulator modeling is not altered.	Jo	A	com			
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.	Jo	A	com*			
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.	Jo	A	com			
11.	All individual operator competencies can be evaluated, as verified using Form ES-301-6 (submit the form along with the simulator scenarios).	Jo	A	com			
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).	Jo	A	com			
13.	The level of difficulty is appropriate to support licensing decisions for each crew position.	Jo	A	com			
Target Quantitative Attributes (Per Scenario; See Section D.5.d)		Actual Attributes	--	--	--		
1.	Total malfunctions (5-8)	6 / 5 / 5 / 5	Jo	A	com		
2.	Malfunctions after EOP entry (1-2)	2 / 1 / 1 / 1	Jo	A	com		
3.	Abnormal events (2-4)	3 / 2 / 3 / 3	Jo	A	com		
4.	Major transients (1-2)	1 / 1 / 1 / 1	Jo	A	com		
5.	EOPs entered/requiring substantive actions (1-2)	1 / 1 / 1 / 0	Jo	A	com		
6.	EOP contingencies requiring substantive actions (0-2)	1 / 0 / 0 / 1	Jo	A	com		
7.	Critical tasks (2-3)	4 / 3 / 5 / 2	Jo	A	com		

* Onsite validation is scheduled for the week of 2/22/10

Facility: Prairie Island Date of Examination: March 15, 2010 Operating Test No.: 1

Competencies	APPLICANTS															
	R1				R2				R3				R4			
	SCENARIO				SCENARIO				SCENARIO				SCENARIO			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Interpret/Diagnose Events and Conditions	1, 2, 3, 5	1, 3, 4, 5	2, 5, 6		1, 5, 6, 7	1, 2, 3, 4			1, 2, 3, 5	1, 3, 4, 5	2, 5, 6		1, 5, 6, 7	1, 2, 3, 4		
Comply With and Use Procedures (1)	1, 2, 3, 5	1, 2, 3, 4, 5	1, 2, 3, 4, 5, 6		1, 3, 5, 6, 7	1, 2, 3, 4			1, 2, 3, 5	1, 2, 3, 4, 5	1, 2, 3, 4, 5, 6		1, 3, 5, 6, 7	1, 2, 3, 4		
Operate Control Boards (2)	1, 2, 3, 5	1, 2, 3, 4, 5	1, 2, 4, 5, 6		1, 3, 5, 6, 7	1, 2, 3, 4			1, 2, 3, 5	1, 2, 3, 4, 5	1, 2, 4, 5, 6		1, 3, 5, 6, 7	1, 2, 3, 4		
Communicate and Interact	1, 2, 3, 5	1, 2, 3, 4, 5	1, 2, 3, 4, 5, 6		1, 3, 5, 6, 7	1, 2, 3, 4			1, 2, 3, 5	1, 2, 3, 4, 5	1, 2, 3, 4, 5, 6		1, 3, 5, 6, 7	1, 2, 3, 4		
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:
 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: Prairie Island

Date of Examination: March 15, 2010

Operating Test No.: 1

Competencies	APPLICANTS															
	R5				R6				R7				U1			
	SCENARIO				SCENARIO				SCENARIO				SCENARIO			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Interpret/Diagnose Events and Conditions	1, 5, 6, 7	1, 2, 3, 4		2, 3, 4, 5, 6			1, 3, 4, 5, 6	2, 3, 4, 5, 6			2, 5, 6	3, 4, 5			2, 3, 4, 5, 6	2, 3, 4, 5, 6
Comply With and Use Procedures (1)	1, 3, 5, 6, 7	1, 2, 3, 4		1, 2, 3, 4, 5, 6			1, 3, 4, 5, 6	1, 2, 3, 4, 5, 6			1, 2, 3, 4, 5, 6	1, 3, 4, 5			1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6
Operate Control Boards (2)	1, 3, 5, 6, 7	1, 2, 3, 4		1, 2, 3, 4, 5, 6			1, 3, 4, 5	1, 2, 3, 4, 5, 6			1, 2, 4, 5, 6	1, 3, 4, 5				
Communicate and Interact	1, 3, 5, 6, 7	1, 2, 3, 4		1, 2, 3, 4, 5, 6			1, 3, 4, 5	1, 2, 3, 4, 5, 6			1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6			1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6
Demonstrate Supervisory Ability (3)															1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5, 6
Comply With and Use Tech. Specs. (3)														3, 4	3, 4	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 applicants' license type and enter one or more event numbers that will allow the examiners to evaluate every applicable competency for every applicant.

Facility: Prairie Island Date of Examination: March 15, 2010 Operating Test No.: 1

Competencies	APPLICANTS															
	I1				I2				I3				I4			
	SCENARIO				SCENARIO				SCENARIO				SCENARIO			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Interpret/Diagnose Events and Conditions	2, 3, 4, 5, 6	1, 2, 3, 4	1, 3, 4, 5, 6		2, 3, 4, 5, 6	1, 2, 3, 4	1, 3, 4, 5, 6		2, 3, 4, 5, 6	1, 3, 4, 5		2, 3, 4, 5	1, 2, 3, 5	1, 2, 3, 4		2, 3, 4, 5, 6
Comply With and Use Procedures (1)	1, 2, 3, 4, 5, 6	1, 2, 3, 4	1, 3, 4, 5, 6		1, 2, 3, 4, 5, 6	1, 2, 3, 4	1, 3, 4, 5, 6		1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5		1, 3, 4, 5	1, 2, 3, 5	1, 2, 3, 4		1, 2, 3, 4, 5, 6
Operate Control Boards (2)			1, 3, 4, 5				1, 3, 4, 5			1, 2, 3, 4, 5		1, 3, 4, 5	1, 2, 3, 5			
Communicate and Interact	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5	1, 3, 4, 5		1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5	1, 3, 4, 5		1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5		1, 2, 3, 4, 5, 6	1, 2, 3, 5	1, 2, 3, 4, 5		1, 2, 3, 4, 5, 6
Demonstrate Supervisory Ability (3)	1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5			1, 2, 3, 4, 5, 6	1, 2, 3, 4, 5			1, 2, 3, 4, 5, 6					1, 2, 3, 4, 5		1, 2, 3, 4, 5, 6
Comply With and Use Tech. Specs. (3)	3, 4	2			3, 4	2			3, 4					2		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 applicants' license type and enter one or more event numbers that will allow the examiners to evaluate every applicable competency for every applicant.

Facility: Prairie Island		Date of Exam: March 2010		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.	To	A	cm			
2. a. NRC K/As are referenced for all questions. b. Facility learning objectives are referenced as available.	To	A	cm			
3. SRO questions are appropriate in accordance with Section D.2.d of ES-401	To	A				
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).			cm			
5. Question duplication from the license screening/audit exam was controlled as indicated below (check the item that applies) and appears appropriate: x_ the audit exam was systematically and randomly developed; or ___ the audit exam was completed before the license exam was started; or ___ the examinations were developed independently; or ___ the licensee certifies that there is no duplication; or ___ other (explain)	To	A	cm			
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	To	A	cm
	28 / 5	2 / 2	45 / 18			
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		To	A	cm
	36 / 10	39 / 15				
8. References/handouts provided do not give away answers or aid in the elimination of distractors.	To	A	cm			
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.	To	A	cm			
10. Question psychometric quality and format meet the guidelines in ES Appendix B.	To	A	cm			
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.	To	A	cm			
a. Author		Printed Name / Signature		Date		
b. Facility Reviewer (*)		TRAVIS OUBET / <i>Travis Oubet</i>		1/12/10		
c. NRC Chief Examiner (#)		James D Lash / <i>James D Lash</i>		1/15/10		
d. NRC Regional Supervisor		Charles Zola / <i>Charles Zola</i>		3/3/10		
		HIRONORI PETERSON / <i>Hironori Peterson</i>		3/3/10		
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.						

* The final distributions will be known after onsite validation during the week of 2/22/10