UPDATED CHECKLISTS - ADMINISTERED EXAMINATION

FOR THE

PRAIRIE ISLAND NUCLEAR GENERATING PLANT

INITIAL EXAMINATION - JULY 2007

Changes on ES-301-2 Forms since 75 Day Submittal

1. Added the code "L" to Control Room JPM "f"
2. Replaced Control Room JPMs "g" and "h"
3. Added the code "L" to In-Plant JPM "i"
4. Replaced In-Plant JPM "k"

Facility: PRAIRIE ISLAND
Exam Level: RO

Date of Examination: 07/30/07
Operating Test No.:

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. CVCS / VC-22SF-1, Place Alternate Letdown in Service	A,D,L,S	1
b. RCS / RC-19S, Perform RCS Leakage Determination Using Board Indications.	D,S	2
c. ECCS / SI-13S, Inadvertent Train B Safety Injection Actuation While Shutdown	D,P,L,S	3
d. AFW/Condensate, CD-1S, Align Cooling Water to the AFW Pump Suction	D,L,S	4b
e. ESFAS / EO-31SF-3, Containment Spray and MSIV Actuation Failures	A,M,L,S	5
f. 4.16 KV Safeguards Power / EG-15S, Restore Power to Bus 15 Following a Reactor Trip	L,N,S	6
g. Non-Nuclear Instrumentation / RD-5S, Pressure Instrument PT-485 Fails Low	N,S	7
h. Fuel Handling / RM-3SF-1, Start Spent Fuel Pool Special Ventilation System From The Control Room	A,M,S	8
In-Plant Systems@ (3 for RO); (3 for SRO-I); (3 or 2 for SRO-U)		
i. CVCS / VC-23SF-1, Perform Unit 2 RO Actions of F5, Appendix B, Attachment D, step AB.	E,L,N,R	1
j. DC Distribution / DC-2, Shutdown of the Portable Battery Charger and Restart of 21 Battery Charger.	D	6
k. Cooling Water / CL-7, Emergency Start of 12 Diesel Driven Cooling Water Pump	A,E,L,M	4b

@All control room (and in-plant) systems must be different and 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	
(D)irect from bank	≤ 9 / ≤ 8 / ≤ 4
(E)mergency or abnormal in-plant	≥ 1 / ≥ 1 / ≥ 1
(L)ow-Power **/ Shutdown**	≥ 1 / ≥ 1 / ≥ 1
(N)ew or (M)odified from bank including 1(A)	≥ 2 / ≥ 2 / ≥ 1
(P)revious 2 exams	≤ 3 / ≤ 3 / ≤ 2 (randomly selected)
(R)CA	≥ 1 / ≥ 1 / ≥ 1
(S)imulator	

Facility: PRAIRIE ISLAND
Exam Level: RO

Date of Examination: 07/30/07
Operating Test No.:

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. CVCS / VC-22SF-1, Place Alternate Letdown in Service	A,D,L,S	1
b. RCS / RC-19S, Perform RCS Leakage Determination Using Board Indications.	D,S	2
c. ECCS / SI-13S, Inadvertent Train B Safety Injection Actuation While Shutdown	D,P,L,S	3
d. AFW/Condensate, CD-1S, Align Cooling Water to the AFW Pump Suction	D,L,S	4b
e. ESFAS / EO-31SF-3, Containment Spray and MSIV Actuation Failures	A,M,L,S	5
f. 4.16 KV Safeguards Power / EG-15S, Restore Power to Bus 15 Following a Reactor Trip	L,N,S	6
g. Non-Nuclear Instrumentation / RD-5S, Pressure Instrument PT-485 Fails Low	N,S	7
h. Fuel Handling / RM-3SF-1, Start Spent Fuel Pool Special Ventilation System From The Control Room	A,M,S	8
In-Plant Systems@ (3 for RO); (3 for SRO-I); (3 or 2 for SRO-U)		
i. CVCS / VC-23SF-1, Perform Unit 2 RO Actions of F5, Appendix B, Attachment D, step AB.	E,L,N,R	1
j. DC Distribution / DC-2, Shutdown of the Portable Battery Charger and Restart of 21 Battery Charger.	D	6
k. Cooling Water / CL-7, Emergency Start of 12 Diesel Driven Cooling Water Pump	A,E,L,M	4b

@All control room (and in-plant) systems must be different and 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	
(D)irect from bank	≤ 9 / ≤ 8 / ≤ 4
(E)mergency or abnormal in-plant	≥ 1 / ≥ 1 / ≥ 1
(L)ow-Power / **Shutdown**	≥ 1 / ≥ 1 / ≥ 1
(N)ew or (M)odified from bank including 1(A)	≥ 2 / ≥ 2 / ≥ 1
(P)revious 2 exams	≤ 3 / ≤ 3 / ≤ 2 (randomly selected)
(R)CA	≥ 1 / ≥ 1 / ≥ 1
(S)imulator	

Facility: PRAIRIE ISLAND	Date of Examination: 07/30/07
Exam Level: SRO-U	Operating Test No.:

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. Not administered to SRO-U	N/A	N/A
b. Not administered to SRO-U	N/A	N/A
c. ECCS / SI-13S, Inadvertent Train B Safety Injection Actuation While Shutdown	D,P,L,S	3
d. Not administered to SRO-U	N/A	N/A
e. ESFAS / EO-31SF-3, Containment Spray and MSIV Actuation Failures	A,M,L,S	5
f. Not administered to SRO-U	N/A	N/A
g. Not administered to SRO-U	N/A	N/A
h. Not administered to SRO-U	N/A	N/A
In-Plant Systems@ (3 for RO); (3 for SRO-I); (3 or 2 for SRO-U)		
i. CVCS / VC-23-SF-1, Perform Unit 2 RO Actions of F5, Appendix B, Attachment D, Step AB	E,L,N,R	1
j. DC Distribution / DC-2, Shutdown of the Portable Battery Charger and Restart of 21 Battery Charger.	D	6
k. Cooling Water/ CL-7, Emergency Start of 12 Diesel Driven Cooling Water Pump	A,E,L,M	4b

@All control room (and in-plant) systems must be different and 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	
(D)irect from bank	≤ 9 / ≤ 8 / ≤ 4
(E)mergency or abnormal in-plant	≥ 1 / ≥ 1 / ≥ 1
(L)ow-Power / **Shutdown**	≥ 1 / ≥ 1 / ≥ 1
(N)ew or (M)odified from bank including 1(A)	≥ 2 / ≥ 2 / ≥ 1
(P)revious 2 exams	≤ 3 / ≤ 3 / ≤ 2 (randomly selected)
(R)CA	≥ 1 / ≥ 1 / ≥ 1
(S)imulator	

Changes on ES-401-2 Forms since 75 Day Submittal

1. Replaced 055 EK1.02 with 074 EK1.03.

2. Replaced 033 2.4.4 with 026 2.4.4.

Facility: Prairie Island Printed: 05/22/2007

Date Of Exam: 08/09/2007

Tier	Group	RO K/A Category Points												SRO-Only Points				
		K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G*	Total	K	A	A2	G*	Total
1. Emergency & Abnormal Plant Evolutions	1	2	3	3				3	3			4	18	0	0	0	0	0
	2	3	2	1				2	1			0	9	0	0	0	0	0
	Tier Totals	5	5	4				5	4			4	27	0	0	0	0	0
2. Plant Systems	1	2	2	3	3	3	2	2	3	2	3	3	28	0	0	0	0	0
	2	1	1	1	1	1	1	1	1	0	1	1	10	0	0	0	0	0
	Tier Totals	3	3	4	4	4	3	3	4	2	4	4	38	0	0	0	0	0
3. Generic Knowledge And Abilities Categories		1			2			3			4		10	1	2	3	4	0
		3			2			3			2			0	0	0	0	

Note:

1. Ensure that at least two topics from every 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 that are not included on the the outline should be added. Refer to ES-401, Attachment 2, 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.
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. Use duplicate pages for RO and SRO-only exams.
9. For Tier 3, select topices 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.

PWR RO Examination Outline

Printed: 05/22/2007

Facility: Prairie Island

ES - 401 **Emergency and Abnormal Plant Evolutions - Tier 1 / Group 1** **Form ES-401-2**

APE # / Name / Safety Function	K1	K2	K3	A1	A2	G	KA Topic	Imp.	Points
000011 Large Break LOCA / 3			X				EK3.12 - Actions contained in EOP for emergency LOCA (large break)	4.4	1
000015/000017 RCP Malfunctions / 4		X					AK2.10 - RCP indicators and controls	2.8*	1
000022 Loss of Rx Coolant Makeup / 2					X		AA2.01 - Whether charging line leak exists	3.2	1
000025 Loss of RHR System / 4		X					AK2.05 - Reactor building sump	2.6	1
000026 Loss of Component Cooling Water / 8				X			AA1.05 - The CCWS surge tank, including level control and level alarms, and radiation alarm	3.1	1
000026 Loss of Component Cooling Water / 8						X	2.4.4 - Ability to recognize abnormal indications for system operating parameters which are entry-level conditions for emergency and abnormal operating procedures.	4.0	1
000027 Pressurizer Pressure Control System Malfunction / 3		X					AK2.03 - Controllers and positioners	2.6	1
000029 ATWS / 1			X				EK3.02 - Starting a specific charging pump	3.1	1
000054 Loss of Main Feedwater / 4						X	2.1.2 - Knowledge of operator responsibilities during all modes of plant operation.	3.0	1
000056 Loss of Off-site Power / 6	X						AK1.01 - Principle of cooling by natural convection	3.7	1
000057 Loss of Vital AC Inst. Bus / 6						X	2.1.23 - Ability to perform specific system and integrated plant procedures during all modes of plant operation.	3.9	1
000058 Loss of DC Power / 6			X				AK3.01 - Use of dc control power by ED/Gs	3.4*	1
000062 Loss of Nuclear Svc Water / 4				X			AA1.06 - Control of flow rates to components cooled by the SWS	2.9	1
000065 Loss of Instrument Air / 8				X			AA1.02 - Components served by instrument air to minimize drain on system	2.6	1
W/E04 LOCA Outside Containment / 3					X		EA2.2 - Adherence to appropriate procedures and operation within the limitations in the facility's license and amendments	3.6	1
W/E05 Inadequate Heat Transfer - Loss of Secondary Heat Sink / 4						X	2.1.33 - Ability to recognize indications for system operating parameters which are entry-level conditions for technical specifications.	3.4	1
W/E11 Loss of Emergency Coolant Recirc. /					X		EA2.2 - Adherence to appropriate procedures and operation within the limitations in the facility's license and amendments	3.4	1

Facility: Prairie Island

ES - 401 **Emergency and Abnormal Plant Evolutions - Tier 1 / Group 1** **Form ES-401-2**

E/APE # / Name / Safety Function	K1	K2	K3	A1	A2	G	KA Topic	Imp.	Points
W/E12 - Steam Line Rupture - Excessive Heat Transfer / 4	X						EK1.1 - Components:, capacity, and function of emergency systems	3.4	1
K/A Category Totals:	**2**	**3**	**3**	**3**	**3**	**4**	**Group Point Total:**		**18**

PWR RO Examination Outline

Printed: 05/22/2007

Facility: Prairie Island

ES - 401 **Emergency and Abnormal Plant Evolutions - Tier 1 / Group 2** **Form ES-401-2**

E/APE # / Name / Safety Function	K1	K2	K3	A1	A2	G	KA Topic	Imp.	Points
000001 Continuous Rod Withdrawal / 1		X					AK2.01 - Rod bank step counters	2.9	1
000024 Emergency Boration / 1					X		AA2.05 - Amount of boron to add to achieve required SDM	3.3	1
000032 Loss of Source Range NI / 7				X			AA1.01 - Manual restoration of power	3.1*	1
000068 Control Room Evac. / 8			X				AK3.02 - System response to turbine trip	3.7	1
000074 Inad. Core Cooling / 4	X						EK1.03 - Processes for removing decay heat from the core	4.5	1
W/E07 Inad. Core Cooling / 4	X						EK1.3 - Annunciators and conditions indicating signals, and remedial actions associated with the Saturated Core Cooling	3.2	1
W/E10 Natural Circ. / 4		X					EK2.2 - Facility's heat removal systems, including primary coolant, emergency coolant, the decay heat removal systems, and relations between the proper operation of these systems to the operation of the facility	3.6	1
W/E14 Loss of CTMT Integrity / 5				X			EA1.2 - Operating behavior characteristics of the facility	3.3	1
W/E16 High Containment Radiation / 9	X						EK1.2 - Normal, abnormal and emergency operating procedures associated with High Containment Radiation	2.7	1
K/A Category Totals:	**3**	**2**	**1**	**2**	**1**	**0**	**Group Point Total:**		**9**

PWR RO Examination Outline

Printed: 05/22/2007

Facility: Prairie Island

ES - 401 | **Plant Systems - Tier 2 / Group 1** | **Form ES-401-2**

Sys/Evol # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	KA Topic	Imp.	Points
003 Reactor Coolant Pump						X						K6.14 - Starting requirements	2.6	1
004 Chemical and Volume Control				X								K4.14 - Control interlocks on letdown system (letdown tank bypass valve)	2.8*	1
005 Residual Heat Removal	X											K1.09 - RCSO	3.6	1
006 Emergency Core Cooling					X							K5.06 - Relationship between ECCS flow and RCS pressure	3.5	1
006 Emergency Core Cooling										X		A4.01 - Pumps	4.1	1
007 Pressurizer Relief/Quench Tank							X					A1.02 - Maintaining quench tank pressure	2.7	1
007 Pressurizer Relief/Quench Tank											X	2.4.31 - Knowledge of annunciators alarms and indications, and use of the response instructions.	3.3	1
008 Component Cooling Water								X				A2.05 - Effect of loss of instrument and control air on the position of the CCW valves that are air operated	3.3*	1
010 Pressurizer Pressure Control					X							K5.01 - Determination of condition of fluid in PZR, using steam tables	3.5	1
10 Pressurizer Pressure Control						X						K6.01 - Pressure detection systems	2.7	1
012 Reactor Protection			X									K3.03 - SDS	3.1*	1
012 Reactor Protection											X	2.4.31 - Knowledge of annunciators alarms and indications, and use of the response instructions.	3.3	1
013 Engineered Safety Features Actuation			X									K3.01 - Fuel	4.4	1
022 Containment Cooling			X									K3.02 - Containment instrumentation readings	3.0	1
022 Containment Cooling										X		A4.01 - CCS fans	3.6	1
026 Containment Spray									X			A3.01 - Pump starts and correct MOV positioning	4.3	1
039 Main and Reheat Steam					X							K5.08 - Effect of steam removal on reactivity	3.6	1
059 Main Feedwater									X			A3.02 - Programmed levels of the S/G	2.9	1
061 Auxiliary/Emergency Feedwater		X										K2.01 - AFW system MOVs	3.2*	1
062 AC Electrical Distribution								X				A2.08 - Consequences of exceeding voltage limitations	2.7	1
63 DC Electrical Distribution								X				A2.01 - Grounds	2.5	1

PWR RO Examination Outline

Printed: 05/22/2007

Facility: Prairie Island

ES - 401 **Plant Systems - Tier 2 / Group 1** **Form ES-401-2**

ys/Evol # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	KA Topic	Imp.	Points
063 DC Electrical Distribution										X		A4.03 - Battery discharge rate	3.0*	1
064 Emergency Diesel Generator	X											K1.05 - Starting air system	3.4	1
073 Process Radiation Monitoring				X								K4.01 - Release termination when radiation exceeds setpoint	4.0	1
076 Service Water				X								K4.03 - Automatic opening features associated with SWS isolation valves to CCW heat exchangers	2.9*	1
078 Instrument Air		X										K2.01 - Instrument air compressor	2.7	1
078 Instrument Air											X	2.1.30 - Ability to locate and operate components, including local controls.	3.9	1
103 Containment							X					A1.01 - Containment pressure, temperature, and humidity	3.7	1
K/A Category Totals:	**2**	**2**	**3**	**3**	**3**	**2**	**2**	**3**	**2**	**3**	**3**	**Group Point Total:**		**28**

PWR RO Examination Outline

Printed: 05/22/2007

Facility: Prairie Island

ES - 401 **Plant Systems - Tier 2 / Group 2** **Form ES-401-2**

'ys/Evol # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	KA Topic	Imp.	Points
001 Control Rod Drive		X										K2.05 - M/G sets	3.1*	1
011 Pressurizer Level Control						X						K6.03 - Relationship between PZR level and PZR heater control circuit	2.9	1
014 Rod Position Indication								X				A2.03 - Dropped rod	3.6	1
016 Non-nuclear Instrumentation											X	2.1.23 - Ability to perform specific system and integrated plant procedures during all modes of plant operation.	3.9	1
017 In-core Temperature Monitor										X		A4.01 - Actual in-core temperatures	3.8	1
033 Spent Fuel Pool Cooling							X					A1.01 - Spent fuel pool water level	2.7	1
034 Fuel Handling Equipment				X								K4.03 - Overload protection	2.6	1
068 Liquid Radwaste	X											K1.07 - Sources of liquid wastes for LRS	2.7	1
071 Waste Gas Disposal			X									K3.05 - ARM and PRM systems	3.2	1
072 Area Radiation Monitoring					X							K5.02 - Radiation intensity changes with source distance	2.5	1
K/A Category Totals:	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**0**	**1**	**1**	**Group Point Total:**		**10**

Changes on ES-301-5 Forms since 75 Day Submittal

Changes on the three ES-301-5 forms are as a result of changes to Scenarios 1 and 2.

Facility: PRAIRIE ISLAND Date of Exam: 07/30/07 Operating Test No.: 1

APPLICANT	EVENT TYPE	Scenarios 1 CREW POSITION SRO	1 ATC	1 BOP	2 SRO	2 ATC	2 BOP	3 SRO	3 ATC	3 BOP	4 SRO	4 ATC	4 BOP	TOTAL	MINIMUM M(*) R	I	U
RO ☐ SRO-I ☐ SRO-U ☒	RX														1	1	0
	NOR	1,2			1										1	1	1
	I/C	3,4,7,8,9			3,4,5,7,8										4	4	2
	MAJ	5,6			6										2	2	1
	TS	3,4			2,4										0	2	2
RO ☒ SRO-I ☐ SRO-U ☐	RX		1												1	1	0
	NOR														1	1	1
	I/C		4,7				2,7,8								4	4	2
	MAJ		5,6				6								2	2	1
	TS														0	2	2
RO ☒ SRO-I ☐ SRO-U ☐	RX					1									1	1	0
	NOR			1,2											1	1	1
	I/C			3,8,9		3,5									4	4	2
	MAJ			5,6		6									2	2	1
	TS														0	2	2
RO ☐ SRO-I ☐ SRO-U ☐	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2

Instructions:

1. 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.

2. 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.

3. 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 Date of Exam: 7/30/07 Operating Test No.: 1

APPLICANT	EVENT TYPE	Scenarios												TOTAL	MINIMUM M(*)		
		1			2			3			4						
		CREW POSITION			CREW POSITION			CREW POSITION			CREW POSITION						
		SRO	ATC	BOP	SRO	ATC	BOP	SRO	ATC	BOP	SRO	ATC	BOP		R	I	U
RO ☐ SRO-I ☐ SRO-U ☒	RX														1	1	0
	NOR	1,2			1										1	1	1
	I/C	3,4,7,8			2,3,7,8										4	4	2
	MAJ	5,6			6										2	2	1
	TS	3,4			2,4										0	2	2
RO ☒ SRO-I ☐ SRO-U ☐	RX					1									1	1	0
	NOR			1,2											1	1	1
	I/C			3,8,9		3,5									4	4	2
	MAJ			5,6		6									2	2	1
	TS														0	2	2
RO ☐ SRO-I ☐ SRO-U ☐	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2
RO ☐ SRO-I ☐ SRO-U ☐	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2

Instructions:

1. 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.

2. 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.

3. 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 Date of Exam: 07/30/07 Operating Test No.: 1

APPLICANT	EVENT TYPE	Scenarios 1 CREW POSITION SRO	ATC	BOP	2 CREW POSITION SRO	ATC	BOP	3 CREW POSITION SRO	ATC	BOP	4 CREW POSITION SRO	ATC	BOP	TOTAL	MINIMUM(*) R	I	U
RO ☐ SRO-I ☒ SRO-U ☐	RX					1									1	1	0
	NOR	1,2													1	1	1
	I/C	3,4,7,8,9				2,3,5									4	4	2
	MAJ	5,6				6									2	2	1
	TS	3,4													0	2	2
RO ☐ SRO-I ☒ SRO-U ☐	RX		1												1	1	0
	NOR				1										1	1	1
	I/C		4,7		2,3,5,9										4	4	2
	MAJ		5,6		6										2	2	1
	TS				2,4										0	2	2
RO ☐ SRO-I ☐ SRO-U ☐	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2
RO ☐ SRO-I ☐ SRO-U ☐	RX														1	1	0
	NOR														1	1	1
	I/C														4	4	2
	MAJ														2	2	1
	TS														0	2	2

Instructions:

1. 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.

2. 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.

3. 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.

Changes on ES-D-1 Forms since 75 Day Submittal

Scenario 1

1. Added 11 SI Pump out of service to Initial Conditions.

2. Removed swap of Charging Pumps and added swap of Condensate Pumps.

3. Removed Fq(z) is 5% outside of COLR limits and added Generator Cold Gas Temperature Concerns requiring a 3% reduction in power.

4. Removed Bus 15 lockout and added 12 CC Pump trip, 11 CC Pump fails to start.

5. Added an ATWS.

6. Added 11 Component Cooling Pump fails to auto start.

Scenario 2

1. Removed 11 CC Pump trip and 12 CC Pump fails to auto start.

2. Added report of Control Room Boundary inoperable.

3. Added Reactor fails to automatically trip, and C Panel Trip Switch fails.

4. Removed ATWS.

5. Removed Partial Containment Isolation failure and added Containment Isolation Failure and Failure of both Feedwater Pumps and 11 Condensate Pump fail to trip on an SI signal.

Facility: Prairie Island Scenario No.: 1 (Modified from Eval #11) Op-Test No.: 1

Examiners: _____ Operators: _____

_____ _____

_____ _____

Initial Conditions: Unit 1 is at 100% power. 11 TDAFWP AND 11 SI Pump are OOS.

Turnover:

1. Due to concerns identified with Generator Cold Gas Temperatures, reduce power from 100% to 97%. Per 1C1.4, Section 5.2
2. Swap 11 and 13 Condensate Pumps per 1C28.3, Section 5.6

Event No.	Malf. No.	Event Type*	Event Description
1	N/A	R (ATC) N (SRO, BOP)	Reduce power from 100% to 97%.
2	N/A	N (SRO, BOP)	Swap 11 and 13 Condensate Pumps.
3	CC01B CC02A	C (SRO,BOP)	12 CC Pump Trip, 11 CC Pump Fails To Start (TS LCO)
4	RX05A	I (SRO, ATC)	Red Channel T-Hot Fails High (TS LCO)
5	VARIOUS	M (ALL)	ATWS
6	SG02A	M (ALL)	11 Steam Generator Tube Rupture
7	SI05B	C (SRO, ATC)	12 Safety Injection Pump fails to auto start
8	FW34B	C (SRO, BOP)	12 Auxiliary Feedwater Pump fails to auto start
9	CC02A	C(SRO,BOP)	11 Component Cooling Pump Fails to auto start

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

Facility: Prairie Island Scenario No.: 2 (Modified from Eval #7) Op-Test No.: 1

Examiners: _____ Operators: _____

_____ _____

_____ _____

Initial Conditions: Unit 1 is at the POAH. No equipment is out of service.

Turnover: Raise power to 6% per 1C1.2.

Event No.	Malf. No.	Event Type*	Event Description
1	N/A	R (ATC) N (SRO)	Raise power from POAH to 6%.
2	NI06B	I (SRO, BOP)	Power Range NI 42 Fails High (TS LCO)
3	VC04A	C (SRO, ATC)	11 Charging Pump Overload Trip
4	N/A	N (SRO)	Report of Control Room Boundary INOPERABLE received (TS LCO)
5	RP02A/B	I (SRO,ATC)	Reactor Fails to Automatically Trip, C Panel Trip Switch Fails
6	RC14	M (ALL)	Small Break LOCA
7	RP05	I (SRO,BOP)	Failure of Containment Isolation Signal Train A
8	RP20	I (SRO, BOP)	Both Feedwater Pumps and 11 Condensate Pump Fail To Trip on an SI signal.

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