

Facility: <u>R. E. Ginna</u>		Date of Examination: <u>11/1/2004</u>
Examination Level (circle one): SRO		Operating Test Number: <u>04-2</u>
Administrative Topic (see Note)	Type Code*	Describe activity to be performed
Conduct of Operations	D, C	JA001.008 Calculate SDM for an Operating Reactor with an Untrippable Rod (2.1.7)
Conduct of Operations	N, C	JS341.002 Requirements for Confined Space Entry (2.1.26)
Equipment Control	D, C	JS343.002 A52.4 Control of Limiting Conditions for Operation. (2.2.23)
Radiation Control	N, C	JS340.019 Implement EPIP 1-13 Local Radiation Emergency. (2.3.10)
Emergency Plan	N, S	JS340.020 Event Classification. (2.4.41)
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: <ul style="list-style-type: none"> (C)ontrol room (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) (S)imulator 		

Facility: R. E. Ginna Scenario No.: 1 Op-Test No.: 04-2

Examiners: S. DENNIS Operators: A MOORE
T. FISH

Initial Conditions: 47% power. B Charging pump OOS for overhaul

Turnover: Plant is at ~47% power following a load decrease to clean the Condenser water Boxes. Currently in O-5.2 "Load Increases" which is complete up to the point of starting the second MFW Pump. Start the second MFW Pump and increase power at 10%/hr IAW O-5.2

Event No.	Malf. No.	Event Type*	Event Description
1	-	N	Start the Second MFW Pump
2	PZR02D	I	PT-449 Fails High causing full PRZR Spray (Tech. Specs.)
3	EDS04B	C	Bus 16 Fault (Loss of a Safeguards Bus) (Tech. Specs.)
4	CVC12A	C	Trip of A Charging Pump. Loss of All Charging
5	STM05A/B STM03	M	Main Steamline Rupture, Both MSIVs stuck open

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

Facility: <u>R. E. Ginna</u>		Date of Examination: <u>11/1/2004</u>
Exam Level (circle one): <u>SRO-U</u>		Operating Test No.: <u>04-2</u>
Control Room Systems [@] (8 for RO; 7 for SRO-I; 2 or 3 for SRO-U)		
System / JPM Title	Type Code*	Safety Function
a.JR076.001 Perform Attachment "No Service Water Pumps"	A, N, S, L	4
b.JR062.026 Restore power to one train from the B D/G per ER-ELEC.3	D, L, S	6
c.JR026.001 Secure CNMT Spray	D, L, S	5
d.		
e.		
f.		
g.		
h.		
In-Plant Systems [@] (3 for RO; 3 for SRO-I; 3 or 2 for SRO-U)		
i.JC006.010 Transfer Water from the SFP to the RWST during Loss of Emergency Coolant Recirculation	A, M, E, L, R	8
j.JR015.006 Install Spare Source Range Drawer (ER-FIRE.1)	D, E, L	7
k.		
<p>@ 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.</p>		
* 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	≥ 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: R E Ginna

Printed: 08/31/2004

Date Of Exam: 11/01/2004

Tier	Group	RO K/A Category Point:											SRO-Only Points					
		K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G*	Total	K	A	A2	G*	
1. Emergency & Abnormal Plant Evolutions	1	0	0	0				0	0			0	0	0	0	4	3	7
	2	0	0	0				0	0			0	0	0	0	3	2	5
	Tier Totals	0	0	0				0	0			0	0	0	0	7	5	12
2. Plant Systems	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4
	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
	Tier Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	6
3. Generic Knowledge And Abilities Categories					1		2		3		4		0	1	2	3	4	7
					0		0		0		0			2	2	2	1	

Note:

1. Ensure that at least two topics from every K/A category are sampled within each tier of the RO outline (i.e., the "Tier Totals" in each K/A category shall not be less than two). Refer to Section D.1.c for additional guidance regarding the SRO sampling.

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. Select topics from many systems and evolutions; avoid selecting more than two K/A topics from a given system unless they relate to plant-specific priorities.

4. Systems/evolutions within each group are identified on the associated outline.

5. The shaded areas are not applicable to the category /tier.

6.* 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. The SRO K/As must also be linked to 10 CFR 55.43 or an SRO-level learning objective.

7. On the following pages, enter the K/A numbers, a brief description of each topic, the topics' importance ratings (IR) 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 columns labeled "K" and "A". Use duplicate pages for RO and SRO-only exams.

8. For Tier 3, enter the K/A numbers, descriptions, importance ratings, and point totals on Form ES-401-3.

9. Refer to ES-401, Attachment 2, for guidance regarding the elimination of inappropriate K/A statements.

PWR SRO Examination Outline

Printed: 08/31/2004

Facility: R E Ginna

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
000015/000017 RCP Malfunctions / 4						X	2.1.32 - Ability to explain and apply all system limits and precautions.	3.8	1
000022 Loss of Rx Coolant Makeup / 2					X		AA2.04 - How long PZR level can be maintained within limits	3.8	1
000026 Loss of Component Cooling Water / 8					X		AA2.04 - The normal values and upper limits for the temperatures of the components cooled by CCW	2.9*	1
000027 Pressurizer Pressure Control System Malfunction / 3						X	2.1.32 - Ability to explain and apply all system limits and precautions.	3.8	1
000055 Station Blackout / 6					X		EA2.06 - Faults and lockouts that must be cleared prior to re-energizing buses	4.1	1
000057 Loss of Vital AC Inst. Bus / 6						X	2.4.30 - Knowledge of which events related to system operations/status should be reported to outside agencies.	3.6	1
W/E05 Inadequate Heat Transfer - Loss of Secondary Heat Sink / 4					X		EA2.1 - Facility conditions and selection of appropriate procedures during abnormal and emergency operations	4.4	1
K/A Category Totals:	0	0	0	0	4	3		Group Point Total:	7

PWR SRO Examination Outline

Printed: 08/31/2004

Facility: R E Ginna

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
000069 Loss of CTMT Integrity / 5					X		AA2.02 - Verification of automatic and manual means of restoring integrity	4.4	1
000076 High Reactor Coolant Activity / 9					X		AA2.07 - When demineralizer resin needs to be replaced	2.7*	1
W/E06 Inad. Core Cooling / 4						X	2.4.4 - Ability to recognize abnormal indications for system operating parameters which are entry-level conditions for emergency and abnormal operating procedures.	4.3	1
W/E08 RCS Overcooling - PTS / 4						X	2.1.32 - Ability to explain and apply all system limits and precautions.	3.8	1
W/E09 Natural Circ. / 4					X		EA2.2 - Adherence to appropriate procedures and operation within the limitations in the facility's license and amendments	3.8	1
K/A Category Totals:	0	0	0	0	3	2	Group Point Total:	5	

PWR SRO Examination Outline

Printed: 08/31/2004

Facility: R E Ginna

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
004 Chemical and Volume Control											X	2.1.33 - Ability to recognize indications for system operating parameters which are entry-level conditions for technical specifications.	4.0	1
013 Engineered Safety Features Actuation								X				A2.03 - Rapid depressurization	4.7	1
022 Containment Cooling								X				A2.01 - Fan motor over-current	2.7	1
064 Emergency Diesel Generator											X	2.1.33 - Ability to recognize indications for system operating parameters which are entry-level conditions for technical specifications.	4.0	1
K/A Category Totals:	0	2	0	0	2	Group Point Total:	4							

PWR SRO Examination Outline

Printed: 08/31/2004

Facility: R E Ginna

ES - 401

Plant Systems - Tier 2 / Group 2

Form ES-401-2

Sys/Evol # / Name	K1	K2	K3	K4	K5	K6	A1	A2	A3	A4	G	KA Topic	Imp.	Points
034 Fuel Handling Equipment								X				A2.01 - Dropped fuel element	4.4	1
086 Fire Protection											X	2.4.4 - Ability to recognize abnormal indications for system operating parameters which are entry-level conditions for emergency and abnormal operating procedures.	4.3	1
K/A Category Totals:	0	1	0	0	1	Group Point Total:	2							

Generic Knowledge and Abilities Outline (Tier 3)

PWR SRO Examination Outline

Printed: 08/31/2004

Facility: R E Ginna

Form ES-401-3

<u>Generic Category</u>	<u>KA</u>	<u>KA Topic</u>	<u>Imp.</u>	<u>Points</u>
Conduct of Operations	2.1.12	Ability to apply technical specifications for a system.	4.0	1
	2.1.14	Knowledge of system status criteria which require the notification of plant personnel.	3.3	1
	Category Total:			2
Equipment Control	2.2.20	Knowledge of the process for managing troubleshooting activities.	3.3	1
	2.2.23	Ability to track limiting conditions for operations.	3.8	1
	Category Total:			2
Radiation Control	2.3.6	Knowledge of the requirements for reviewing and approving release permits.	3.1	1
	2.3.9	Knowledge of the process for performing a containment purge.	3.4	1
	Category Total:			2
Emergency Procedures/Plan	2.4.28	Knowledge of procedures relating to emergency response to sabotage.	3.3	1
	Category Total:			1
Generic Total:				7

