Entergy Nuclear Northeast
Entergy Nuclear Operations, Inc.
Vermont Yankee
P.O. Box 0500
185 Old Ferry Road
Brattleboro, VT 05302-0500
Tel 802 257 5271

December 23, 2004
TDL 04-014
BVY 04-137

Regional Administrator, Region 1
ATTN: Mr. John Caruso
United States Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406-1415

References: (a) License No. DPR-28 (Docket No. 50-271)

Subject: Senior Reactor Operator Licensing Examination, Vermont Yankee, February 2005

Enclosed for your review are the examination materials to support the Vermont Yankee NRC Examination scheduled for the week of February 1, 2005.

Per ES-201, Attachment 1, regarding examination security, I would request that the enclosed materials be withheld from public disclosure until after the examinations have been completed.

This examination has been developed in accordance with NUREG-1021 Revision 9. The written examination sample plan has changed. The JPM selections and scenarios have been modified based on discussions between yourself and Mr. Kevin Murphy during the preparation week.

For any additional assistance, please call Frank Fagan at (802) 258-4256 or myself at (802) 258-4161.

Sincerely,

Entergy Nuclear Northeast - Vermont Yankee

Michael E. Gosekamp
Operations Training Superintendent

c: USNRC Resident Inspector – VYNPS (Attachments Withheld from Public Disclosure)
USNRC Project Manager – VYNPS (Attachments Withheld from Public Disclosure)
Document Control Desk – (Attachments Withheld from Public Disclosure)
VT Department of Public Service (Attachments Withheld from Public Disclosure)

Material Required for 2005 NRC Written Examination

Question	Material Required
14	EOP-1
16	EOP-3 EOP-1
18	OP 4114 Figure 1 T.S. 4.4.A EOP-2
19	ON 3152
28	EOP-2
26	EOP-4
81	AP 3125 Appendix A
82	OP 3020 flowchart with Tables "A" and "B" blacked out
83	AP-0156 AP-3125 Appendix A
84	EOP-2
85	EOP-4
86	EOP-3
88	T.S Table 3.1.1 page 1 and notes 1-5
100	AP 3125 Appendix A

Note: The following is removed from the EOPs:
EOP-1: Caution Table, Table A, Table S
EOP-2: Caution Table, Table A
EOP-3: Caution Table,
EOP-4: Overrides including Rad Release override

MASTER EXAMINATION AND ANSWER KEY

SENIOR REACTOR OPERATOR (UPGRADE) TRAINING PROGRAM

Course: 2005 SROU/SROI

Exam Activity Code: **Date Exam Prepared: 4 November 2004**

Date Exam Taken: 31 January 2005

Prepared By	**Date**
Approved By	**Date**

EXAMINATION

SENIOR REACTOR OPERATOR (UPGRADE) TRAINING PROGRAM

Course: 2005 SROU/SROI

Exam Activity Code: **Date Exam Prepared: 4 November 2004**

Date Exam Taken: 31 January 2005

Exam Questions

No.	Ans	Q #	Rev	IG	Objectives	Time	K&A Ref	Level
1	a	5978	1	LOT-00-202	CRO 3j	1	295001/AK2.04	1
2	b	5930	5	LOT-00-602	CRO 2	1	295001/2.4.50	1
3	c	5979	2	LOT-00-264	CRO 11	5	295003/AA1.01	1
4	d	5605	5	LOT-01-262	CRO 17	1	295004/AK3.01	1
5	a	5620	1	LOT-01-262	CRO 15	1	295005/AK2.08	1
6	b	3707	2	LOT-00-600	CRO A3	3	295006/AK3.01	0
7	d	5980	0	LOT-00-612	CRO 3	3	295016/AA1.05	1
8	b	5677	2	LOT-00-274	CRO 3	1	295018/AK1.01	0
9	a	3640	4	LOT-00-604	CRO 1.m	2	295019/2.4.49	1
10	a	3541	2	LOT-00-601	CRO 3	2	295021/AK2.02	0
11	d	5775	6	LOT-00-601	CRO 3	1	295023/AA2.04	0
12	d	5765	3	LOT-00-607	CRO 2	1	295024/EK3.08	1
13	d	5933	4	LOT-00-206	CRO 5, 7	1	295025/EK2.06	1
14	b	5920	4	LOT-00-610	CRO 5, 11	4	295026/EK1.01	1
15	b	5973	4	LOT-00-607	CRO-3	1	295028/EK3.03	0
16	c	3548	3	LOT-00-607	CRO 3	3	295030/EK1.03	1
17	b	2226	2	LOT-00-610	CRO 2 & 3	3	295031/2.4.18	0
18	d	5921	3	LOT-00-211	CRO 4	1	295037/EK2.04	1
19	b	3718	8	LOT-00-603	CRO 3	2	295038/2.4.47	1
20	a	5971	1	LOT-00-286	CRO 4a	1	600000/AK3.04	0
21	b	1055	2	LOT-00-602	CRO 1	5	295002/AK2.11	1
22	a	246	4	LOT-00-288	CRO 5	1	295010/AK3.02	0
23	b	2991	4	LOT-00-288	CRO 7	3	295012/AA1.01	0
24	a	5972	4	LOT-00-217	CRO 14	2	295013/AK3.01	1
25	d	5938	3	LOT-00-600	CRO 20	1	295013/AA2.02	0
26	a	3448	2	LOT-00-611	CRO 3	5	295032/EK3.01	1
27	c	3563	6	LOT-01-626	CRO 5	3	295034/EK1.02	1
28	d	5981	1	LOT-00-610	CRO 3	1	203000/2.4.22	1
29	a	5940	4	LOT-00-276	CRO 3	1	205000/2.4.45	1
30	a	5941	6	LOT-00-206	CRO 2c	1	206000/A2.15	1
31	b	5943	3	LOT-00-209	CRO 7, 8	1	209001/K2.02	1
32	b	5944	3	LOT-00-211	CRO 6	1	211000/K1.07	0
33	b	3886	5	LOT-00-212	CRO-3,4	2	212000/A4.12	1
34	b	639	2	LOT-02-215	CRO 3, 8	2	215003/K1.02	1
35	c	5945	3	LOT-00-621	CRO 13	1	215004/K1.06	1
36	a	5922	3	LOT-05-215	CRO 3	3	215005/K3.06	1

37	c	5924	2	LOT-00-217	CRO-3, 22	4	217000/K5.01	1
38	c	1360	3	LOT-00-217	CRO 4	2	217000/A3.03	1
39	b	5946	5	LOT-00-239	CRO 6, 7	1	218000/A2.03	1
40	d	5974	3	LOT-00-218	CRO-2	1	218000/K5.01	1
41	d	5948	3	LOT-01-223	CRO 7	1	223002/A2.07	0
42	a	5985	0	LOT-01-223	CRO 7	1	223002/K6.02	1
43	a	5949	4	LOT-00-602	CRO 3, 5	1	239002/A4.06	1
44	b	5737	1	LOT-01-259	CRO 5e	1	259002/A2.01	1
45	b	5983	0	LOT-00-261	CRO 3	1	261000/A3.03	0
46	c	5925	4	LOT-03-262	CRO 7	5	262001/K1.04	1
47	d	5977	4	LOT-03-262	CRO 6	1	262002/A1.02	0
48	a	5927	1	LOT-00-283	CRO 3	3	262002/K1.06	0
49	b	5989	3	LOT-00-263	CRO 5	1	263000/K2.01	1
50	a	5950	2	LOT-00-263	CRO 9	1	263000/K5.01	0
51	c	3741	3	LOT-01-262	CRO 6, 7	2	264000/K5.06	1
52	c	5951	2	LOT-00-239	CRO 3	1	300000/K1.05	0
53	c	165	4	LOT-00-601	CRO 1	2	400000/K3.01	1
54	b	5873	1	LOT-00-201	CRO 2c	1	201003/A2.05	0
55	b	5928	3	LOT-00-202	CRO-6, 7	3	202001/A4.12	1
56	c	5953	4	LOT-00-204	CRO 3	1	204000/A3.01	0
57	a	5988	2	LOT-00-216	CRO 11c	1	216000/K5.13	0
58	c	5639	4	LOT-00-205	CRO 2	1	219000/K4.03	1
59	c	6002	1	LOT-01-626	CRO 3, 4	1	223001/A1.02	0
60	d	3588	1	LOT-00-233	CRO 3	2	233000/A3.02	0
61	c	5957	3	LOT-00-234	CRO 1	1	234000/K3.01	1
62	d	5990	4	LOT-00-239	CRO 3	1	239001/K6.04	0
63	c	3839	3	LOT-00-307	CRO A2, A5	3	245000/K3.07	1
64	d	5958	3	LOT-00-286	CRO 2f	1	286000/K4.06	0
65	a	5993	2	LOT-00-205	CRO 5	1	290002/K4.05	0
66	b	5996	1	LOT-03-400	CRO 1	1	0/2.1.08	0
67	d	3596	3	LOT-00-283	CRO 7	2	0/2.1.19	1
68	a	5959	2	LOT-00-206	CRO 7	1	0/2.1.32	1
69	c	5961	4	LOT-00-413	CRO 9	1	0/2.2.13	0
70	b	5962	1	LOT-01-215	CRO 5	1	0/2.2.30	0
71	a	5965	4	LOT-00-603	CRO 3	1	0/2.3.11	0
72	c	5966	2	LOT-00-404	CRO 3	1	0/2.3.01	0
73	b	3668	1	LOT-00-610	CRO 1	5	0/2.4.01	0
74	b	5968	2	LOT-00-622	CRO 1a	1	0/2.4.17	0
75	d	5969	3	LOT-00-900	CRO 3	1	0/2.4.29	0
76	d	5984	2	LOT-00-276	SRO 3, 4	1	295018/AA2.03	1
77	c	5881	6	LOT-00-601	SRO 7	1	295019/2.1.32	1
78	d	5932	3	LOT-00-601	SRO 8	1	295021/AA2.06	1
79	a	5992	5	LOT-00-604	SRO 6	1	295025/EA2.01	0
80	a	5690	2	LOT-00-402	SRO 2, 3	1	295026/2.4.33	0
81	d	5935	4	LOT-00-900	SRO 4, 5	1	295031/2.1.14	1
82	d	5998	3	LOT-00-602	SRO 10	1	600000/AA2.13	1

83	d	5937	4	LOT-00-402	SRO 1	1	295010/2.4.30	0
84	b	5999	0	LOT-00-610	SRO 3	1	295014/2.1.06	1
85	d	5987	2	LOT-00-611	SRO 3	1	295036/EA2.02	1
86	d	2524	4	LOT-00-607	SRO 2, 3	1	206000/2.4.06	1
87	a	5982	4	LOT-00-610	SRO 3	3	211000/2.4.07	1
88	c	5994	3	LOT-05-215	SRO 1	1	215005/A2.06	1
89	c	3901	3	LOT-00-601	SRO 10	2	239002/A2.01	1
90	a	6000	2	LOT-01-262	SRO 7	1	264000/A2.10	0
91	d	5995	4	LOT-00-601	SRO 10	1	201002/A2.03	1
92	d	237	2	LOT-04-215	SRO 1	2	215001/A2.07	1
93	c	5956	2	LOT-00-400	SRO 12	1	226001/2.2.17	0
94	d	5997	2	LOT-01-400	SRO 1	1	0/2.1.13	0
95	a	5960	3	LOT-00-308	SRO 1	1	0/2.1.04	1
96	a	5963	2	LOT-00-402	SRO 15	1	0/2.2.07	1
97	c	5964	4	LOT-00-402	SRO 5e	1	0/2.2.20	1
98	b	5967	3	LOT-00-404	SRO 5	1	0/2.3.02	0
99	b	6001	2	LOT-03-400	SRO 1	1	0/2.4.05	0
100	a	5970	2	LOT-00-900	SRO 2	1	0/2.4.32	1
					Total	161		

Question Level Totals

Level	Description	Number of Questions
0	Fundamental Knowledge/Memory	41
1	Comprehension	59
2	Analysis	0

Originator: Fagan, Frank N.
Last Revised: 12/22/2004 2:02:01 PM by Hallonquist, Nora E.

U.S. Nuclear Regulatory Commission
Site-Specific SRO Written Examination

Applicant Information	
Name:	
Date:	Facility/Unit: Vermont Yankee
Region: I	Reactor Type: GE
Start Time:	Finish Time:

Instructions

Use the answer sheets provided to document your answers. Staple this cover sheet on top of the answer sheets. To pass the examination you must achieve a final grade of at least 80.00 percent overall, with a 70.00 percent or better on the SRO-only items if given in conjunction with the RO exam; SRO-only exams given alone require a final grade of 80.00 percent to pass. You have 8 hours to complete the combined examination, and 3 hours if you are only taking the SRO portion.

Applicant Certification

All work done on this examination is my own. I have neither given nor received aid.

_____
Applicant's Signature

Results				
RO / SRO-Only / Total Examination Values	75	25	100	Points
Applicant's Scores	_____ /	_____ /	_____	Points
Applicant's Grade	_____ /	_____ /	_____	Percent

MASTER EXAMINATION AND ANSWER KEY

SENIOR REACTOR OPERATOR (UPGRADE) TRAINING PROGRAM

Course: 2005 SROU/SROI

Exam Activity Code: **Date Exam Prepared: 4 November 2004**

Date Exam Taken: 31 January 2005

Prepared By	**Date**
Approved By	**Date**

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Question No. 1 Exam Bank Question No.: 5978 Revision: 1 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-202 Objective: CRO 3j
Question Level: Comprehension

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Select the correct answer:

While operating at full power the plant experiences a jet pump failure.

How should the pressure regulating system respond to the transient?

	Answer/Distractor	Justification
a.	EPR and MPR strokes decrease, EPR controlling pressure	Correct Response - Jet pump failure causes a decrease in core flow which in turn causes a reduction in power. At lower powers steam line pressue decreases. The decreased pressure is sensed by the EPR/MPR. The EPR is in control but they both lower together and the MPR never takes control.
b.	EPR and MPR strokes increase, EPR controlling pressure	Incorrect - Strokes of EPR/MPR decrease with decreasing pressure
c.	EPR stroke decreases and MPR stroke remains constant, MPR controlling pressure	Incorrect - EPR setpoint controls at a lower pressure and thus stays in control
d.	MPR stroke increases and EPR stroke remains constant, MPR controlling pressure	Incorrect - Strokes decrease

References: ON 3141; OP 0105; LOT-00-249
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2000090501	Respond to Jet Pump Failure

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295001	AK2.04	Knowledge of the interrelations between and the following PARTIAL OR COMPLETE LOSS OF FORCED CORE	3.3	3.3

		FLOW CIRCULATION: (CFR 41.7, 45.8): Reactor/turbine pressure regulating system: Plant-Specific		

Static Simulator Exams: None
Last Revised: 12/22/2004 12:13:26 PM by Hallonquist, Nora E.

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Question No. 2 Exam Bank Question No.: 5930 Revision: 5 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-602 Objective: CRO 2
Question Level: Comprehension

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Select the correct answer:

The plant is at 30% power. Due to high vibrations, the "B" Reactor Recirc pump has been removed from service per OP 2110, "Reactor Recirculation System". The CRO then receives the following CRP 9-4 alarms:

MG SET "A" GEN FIELD GND (4-A-3)

and "A" MG Set voltage and current are fluctuating excessively.

The CRS should direct:

	Answer/Distractor	Justification
a.	reduce "A" Recirc MG to min speed and conduct a normal plant shutdown.	Incorrect - The indications warrant removing the "A" MG from service
b.	trip "A" Recirc MG and insert a manual scram.	Correct Response - The alarms and indications warrant a RR pump trip. OT 3118 requires a scram if operating in natural circulation.
c.	trip "A" Recirc MG and monitor for reactor instability.	Incorrect - A scram is required if operating in natural circulation
d.	reduce "A" Recirc MG to min speed and insert control rods to exit the exclusion/buffer region.	Incorrect - The indications warrant removing the "A" MG from service and the Rx is NOT in an instability region at 30% power and in natural circulation.

References: OT 3118; ARS 4-A-3
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2007830501	Respond to Recirc Pump Trip

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO

295001	2.4.50	Ability to verify system alarm setpoints and operate controls identified in the alarm response manual (CFR 45.3)	3.3	3.3

Static Simulator Exams: None
Last Revised: 12/22/2004 12:14:09 PM by Hallonquist, Nora E.

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Question No. 3 Exam Bank Question No.: 5979 Revision: 2 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-264 Objective: CRO 11
Question Level: Comprehension

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Select the correct answer:

The plant experiences a LOCA and all ECCS pumps and the Diesels are operable and running.

Five minutes later, an LNP occurred but 4T2 did not trip, what would be the status of the "A" DG and its A/C electrical distribution system?

	Answer/Distractor	Justification
a.	DG running and carrying Bus 2 and Bus 4	Incorrect - Output breaker won't close.
b.	DG running and carrying Bus 4 only	Incorrect - Output breaker won't close.
c.	DG running with its output breaker open	Correct Response - Output breaker requires to see 4T2 open before it will close.
d.	DG tripped with its output breaker open	Incorrect - Distractor makes candidate think the output breaker closed (it doesn't), tripped open and caused a D.G. trip

References: OT 3122; OP 2142
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2007020501	Respond to Loss of Normal Power

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295003	AA1.01	Ability to operate and/or monitor the following as they apply to PARTIAL OR COMPLETE LOSS OF A.C. POWER: (CFR 41.7, 45.6): A.C. electrical distribution system	3.7	3.8

Static Simulator Exams: None
Last Revised: 12/22/2004 12:14:48 PM by Hallonquist, Nora E.

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Question No. 4 Exam Bank Question No.: 5605 Revision: 5 Point Value: 1
SRO Only: No Instructor Guide: LOT-01-262 Objective: CRO 17
Question Level: Comprehension

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Select the correct answer:

RHRSW Pump C is running for torus cooling. The operator notices that there is no light indication for the pump but the pump shows amp indication. The cause for the loss of indication is determined to be blown fuses at the 4KV breaker cubicle.

If not corrected and an LNP and LOCA were to occur, the C RHRSW pump breaker would:

	Answer/Distractor	Justification
a.	trip and could NOT be restarted from the control room.	Incorrect - Without control power breaker will not trip
b.	trip and could be restarted from the control room.	Incorrect - Without control power breaker will not trip
c.	stay connected and could cause an overload if B & D Service Water (SW) pumps were running.	Incorrect - B & D SW pumps come off of Bus 3 and will remain under 3000 KW (7 day overload condition)
d.	stay connected and could cause an overload if A & C Service Water (SW) pumps were running.	Correct Response - Loss of light indication from local fuses occurs from loss of control power. To trip a breaker electrically requires control power. The RHRSW pump load sheds and other equipment sequences on. The diesel has an overload rating of 3025 KW for 2 hours. With the diesel auto loaded, the SW pumps and RHRSW pump will cause the diesel to exceed 3025 KW.

References: USFAR 8.5.3, Table 8.5.1A
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2627390401	Respond to Loss of DC Control Power to a 4KV Bus

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295004	AK3.01	Knowledge of the reasons for the following responses as they apply to PARTIAL OR COMPLETE LOSS OF D.C. POWER: (CFR 41.5, 45.6): Load shedding: Plant-Specific	2.6	3.1

Static Simulator Exams: None
Last Revised: 12/22/2004 12:15:15 PM by Hallonquist, Nora E.

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Question No. 5 Exam Bank Question No.: 5620 Revision: 1 Point Value: 1
SRO Only: No Instructor Guide: LOT-01-262 Objective: CRO 15
Question Level: Comprehension

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Select the correct answer:

The plant is operating normally at 100% power, when the generator primary lockout relay energizes due to a fault in the 345 KV yard. With the 115 KV yard still energized, what is the status of the electrical distribution system 10 seconds after the lockout?

	Answer/Distractor	Justification
a.	Buses 1, 2, 3 & 4 are energized by the Startup transformers.	Correct Response - S/U transformers powered from 115KV, normal transfer
b.	Buses 1 & 2 are de-energized and Buses 3 & 4 are energized via the diesel generators.	Incorrect - Diesels don't start on a fast transfer
c.	Buses 1 & 2 are energized via the Startup transformers and Buses 3 & 4 are energized via the diesel generators.	Incorrect - Diesels don't start on a fast transfer
d.	Buses 1 & 2 are energized via the Startup transformers, Buses 3 & 4 are de-energized, both diesel generators are running.	Incorrect - Diesels don't start on a fast transfer

References: UFSAR 8.4.5.1; ON 3155
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2007020501	Respond to Loss of Normal Power

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295005	AK2.08	Knowledge of the interrelations between and the following MAIN TURBINE TRIP: (CFR 41.7, 45.8): A.C. electrical distribution	3.2	3.3

Static Simulator Exams: None
Last Revised: 12/22/2004 12:15:46 PM by Hallonquist, Nora E.

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Question No. 6 Exam Bank Question No.: 3707 Revision: 2 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-600 Objective: CRO A3
Question Level: Fundamental Knowledge/Memory

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Select the correct answer:

The reactor is at 100% power with FWLC in 3-element control when a manual scram is inserted. Immediately following the scram, reactor water level will:

	Answer/Distractor	Justification
a.	rise because steam flow is less than feed flow.	Incorrect - level lowers
b.	lower due to the rush of water to the in-core region.	Correct Response - Normal response for shrink
c.	rise due to the rush of water to the in-core region.	Incorrect - level lowers
d.	lower because steam flow is less than feed flow.	Incorrect - An initial lower steam flow would cause level to rise.

References: LOT-00-216; EOP-1 Study Guide
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2000330501	Respond to a Reactor SCRAM

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295006	AK3.01	Knowledge of the reasons for the following responses as they apply to SCRAM: (CFR 41.5, 45.6): Reactor water level response	3.8	3.9

Static Simulator Exams: None
Last Revised: 12/22/2004 12:16:38 PM by Hallonquist, Nora E.

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Question No. 7 Exam Bank Question No.: 5980 Revision: 0 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-612 Objective: CRO 3
Question Level: Comprehension

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Select the correct answer:

Given the following conditions:

- RCIC is to be operated from the Alternate Shutdown Panel
- All transfer switches have been placed to emergency with the exception of MTS-13-1, 125V DC Manual RCIC Transfer Switch (located in the RCIC Corner Room)
- A loss of bus DC-2 then occurs

The RCIC System:

	Answer/Distractor	Justification
a.	can be operated from the control room ONLY.	Incorrect - The loss of DC-2 prevents operation of RCIC from the Control Room
b.	can be operated from the ALT S/D panel ONLY.	Incorrect - The loss of DC-2 and failure to transfer power with MTS-13-1 leaves RCIC without power
c.	can be operated from the ALT S/D panel or from the control room.	Incorrect - DC2 is the normal power supply to the RCIC loads. The transfer switch disconnects DC2 and connects DC-1AS. If not transferred, a loss of DC2 prevents any operation.
d.	cannot be operated from the ALT S/D panel nor from the control room.	Correct Response - DC2 is the normal power supply to the RCIC loads. The transfer switch disconnects DC2 and connects DC-1AS. If not transferred, a loss of DC2 prevents any operation.

References: OP 3126; LOT-00-612
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2177030101	Operate RCIC System from RCIC Alternate Shutdown Panel CP-82-1

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295016	AA1.05	Ability to operate and/or monitor the following as they apply to CONTROL ROOM ABANDONMENT: (CFR 41.7, 45.6): D.C. electrical distribution	2.8	2.9

Static Simulator Exams: None
Last Revised: 12/22/2004 2:18:41 PM by Hallonquist, Nora E.

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Question No. 8 Exam Bank Question No.: 5677 Revision: 2 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-274 Objective: CRO 3
Question Level: Fundamental Knowledge/Memory

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Select the correct answer:

The running TBCCW pump has tripped and the standby pump can not be started.

If no operator action is taken, which of the following components will be effected?

	Answer/Distractor	Justification
a.	Turbine lube oil coolers, Condensate pumps	Incorrect - Lube oil coolers cooled by SW
b.	Isophase bus coolers, Condensate pump	Correct Response - Loads cooled by TBCCW
c.	Turbine lube oil coolers, Generator hydrogen coolers	Incorrect - Lube oil coolers cooled by SW
d.	Isophase bus coolers, Generator hydrogen coolers	Incorrect - Gen H2 coolers cooled by SW

References: ON 3165; LOT-00-274
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2747060401	Respond to Loss of Power to TBCCW

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295018	AK1.01	Knowledge of the operational implications of the following concepts as they apply to PARTIAL OR COMPLETE LOSS OF COMPONENT COOLING WATER: (CFR 41.8 to 41.10): Effects on component/system operations	3.5	3.6

Static Simulator Exams: None
Last Revised: 12/22/2004 12:17:41 PM by Hallonquist, Nora E.

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Question No. 9 Exam Bank Question No.: 3640 Revision: 4 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-604 Objective: CRO 1.m
Question Level: Comprehension

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Select the correct answer:

Station air compressors C and D are running in "LEAD" when a Service Air line break and LNP occurs. Following the LNP, the plant conditions are as follows:

- Emergency Diesel Generators running and loaded
- SA-PCV-1, Service Air Pressure Control Valve, controlling pressure at 83 psig
- No operator actions have been taken

Which one of the following is the status of the Air System?

	Answer/Distractor	Justification
a.	No compressors are running, A & B must be manually started.	Correct Response - A & B must be started from the control room after an LNP as an immediate action.
b.	No compressors are running, C & D must be manually started.	Incorrect - C & D are not diesel backed and have no power during a LNP
c.	All 4 compressors have automatically started on low air pressure.	Incorrect - Power to only A/B
d.	Only A & B air compressors have started on low air pressure	Incorrect - No auto start of A & B

References: OT 3122
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2790020501	Restart Station Air Compressor Following an LNP

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295019	2.4.49	Ability to perform without reference to procedures those actions that require immediate operation of system components and controls (CFR 41.10, 43.2, 45.6)	4.0	4.0

Static Simulator Exams: None
Last Revised: 12/22/2004 12:19:14 PM by Hallonquist, Nora E.

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Question No. 10 Exam Bank Question No.: 3541 Revision: 2 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-601 Objective: CRO 3
Question Level: Fundamental Knowledge/Memory

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Select the correct answer:

The plant is in an outage with the following conditions:

- Refueling is underway
- Shutdown cooling has been lost & it is not possible to restore the RHR system any time soon.
- ON 3156, Loss of Shutdown Cooling, has been enetered

The CRS should direct feed with _____ and bleed _____.

	Answer/Distractor	Justification
a.	Condensate Transfer through the CS system; with RCU.	Correct Response - ON 3156 actions
b.	CS pumps; through an open SRV	Incorrect - CS is not an approved system and procedurally the SRV can only be used with RHR with the reactor head installed.
c.	Condensate and Feed using the condensate pumps; with RCU.	Incorrect - Condensate and feed are not an approved system and normally during an outage both the condensate/feed and circ. water (needed for cooling) are removed from service
d.	RHR pumps; through an open SRV	Incorrect - Not an approved method with the head off.

References: ON 3156
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2000150501	Respond to a Loss of Shutdown Cooling

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295021	AK2.02	Knowledge of the interrelations between and the following LOSS OF SHUTDOWN COOLING: (CFR 41.7, 45.8):	3.2	3.3

		Reactor water cleanup		

Static Simulator Exams: None
Last Revised: 12/22/2004 1:09:41 PM by Hallonquist, Nora E.

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Question No. 11 Exam Bank Question No.: 5775 Revision: 6 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-601 Objective: CRO 3
Question Level: Fundamental Knowledge/Memory

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Select the correct answer:

During refueling operation a bundle being transferred from the Reactor vessel to the spent fuel pool is inadvertently dropped 1 foot, on the top of the spent fuel racks.

The action(s) required in response to this event is:

	Answer/Distractor	Justification
a.	Lift the bundle, place the bundle in its proper location and then halt refueling.	Incorrect - Not allowed by Precaution 19; OP 1101
b.	Halt refueling. Notify SM and Ops Supt for permission to re-commence fuel move.	Incorrect - Ops Supt required to restart; evacuation required
c.	Evacuate the refuel floor only, notify SM and Ops Supt.	Incorrect - DW evacuation required; Precaution 17
d.	Evacuate the refuel floor and Drywell. Notify SM and Ops Supt.	Correct Response - DW and refuel evacuation required

References: OP 1101; ON 3153
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2737060101	Respond to Automatic Actions from Local Monitors

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295023	AA2.04	Ability to determine and/or interpret the following as they apply to REFUELING ACCIDENTS:(CFR 41.10, 43.5, 45.13): Occurrence of fuel handling accident	3.4	4.1

Static Simulator Exams: None
Last Revised: 12/22/2004 12:20:13 PM by Hallonquist, Nora E.

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Question No. 12 Exam Bank Question No.: 5765 Revision: 3 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-607 Objective: CRO 2
Question Level: Comprehension

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Select the correct answer:

The following plant conditions exist:

- 'A' RHR spraying DW and torus
- DW pressure 6 psig and lowering slowly
- Torus pressue 6.5 psig and lowering slowly
- RHR DRYWELL PRESS HI (3-L-1) alarming

When the high drywell pressure alarm clears, _____ isolates to prevent operation of the _____ vacuum breakers.

	Answer/Distractor	Justification
a.	Drywell Spray only; Torus to Drywell	Incorrect - Both sprays isolate
b.	Drywell and Torus Spray; Torus to Drywell	Incorrect - On a LOCA the Torus to Drywell Vacuum breaker would open up normally.
c.	Drywell Spray only; Reactor Building to Torus	Incorrect - Both sprays isolate
d.	Drywell and Torus Spray; Reactor Building to Torus	Correct Response - If primary containment goes negative air will be drawn in from the reactor building

References: EOP-3 Study Guide
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2057220101	Startup the RHR System in the Drywell Spray Mode

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295024	EK3.08	Knowledge of the reasons for the following responses as they apply to HIGH DRYWELL PRESSURE (CFR 41.5, 45.6): Containment spray: Plant-specific	3.7	4.1

Static Simulator Exams: None
Last Revised: 12/22/2004 1:02:38 PM by Hallonquist, Nora E.

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Question No. 13 Exam Bank Question No.: 5933 Revision: 4 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-206 Objective: CRO 5, 7
Question Level: Comprehension

****

Select the correct answer:

The plant was at 100% power when a steam leak occurs in the steam tunnel. The current plant conditions are:

- DW pressure is 2.0 psig and steady
- Steam tunnel temperature has just reached 212°F and is slowly increasing
- Reactor level is at a low of 120" and slowly decreasing
- Reactor pressure is at a high of 1020 psig and slowly increasing

Which one of the following plant systems is currently available to control reactor pressure?

	Answer/Distractor	Justification
a.	RWCU	Incorrect - GP5 isolation due to 127" level
b.	MSL Drains	Incorrect - GP1 isolation due to 212°F
c.	Bypass valves	Incorrect - GP1 isolation due to 212°F
d.	HPCI	Correct Response - No initiation signal present and the isolation occurs at 212°F after 35 min T.D.

References: OP 2115; T.S. Table 3.2.1
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2007400501	Control RPV Pressure Using Bypass Valves, HPCI, RCIC, SRVS, RWCU, Steam Line Drains

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295025	EK2.06	Knowledge of the interrelations between HIGH REACTOR PRESSURE and the following: (CFR 41.7, 45.8): HPCI: Plant-specific	3.8	3.8

Static Simulator Exams: None

Last Revised: 12/22/2004 1:22:32 PM by Hallonquist, Nora E.

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Question No. 14 Exam Bank Question No.: 5920 Revision: 4 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-610 Objective: CRO 5, 11
Question Level: Comprehension

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Select the correct answer:

Plant conditions are:

- Torus temperature 200°F
- Core Spray A flow 3800 gpm with injection into the vessel

Which one of the following is the LOWEST torus pressure at which the "A" CS pump NPSH requirement is met?

	Answer/Distractor	Justification
a.	15 psig	Incorrect - Pressure too high for torus temp. A torus temp of 217°F is needed for 15 psig.
b.	10 psig	Correct Response - The intersection of 200°F and 3800 gpm occurs between 5 and 10 psig, the next highest pressure should be utilized.
c.	5 psig	Incorrect - Pressure is too low. At this flow a torus temp of 195°F or less is required.
d.	0 psig	Incorrect - Pressure is too low. At this flow a torus temp of 171°F or less is required.

References: EOP-1
Source: VY Exam Bank
Required Student References: EOP-1
SRO Reference: None

Task Associations

Task Number	Task Title
2000190501	Respond to High Torus Water Temperature

Knowledge and Abilities Associations

System	K/A No	Statement	RO	SRO
295026	EK1.01	Knowledge of the operational implications of the	3.0	3.4

		following concepts as they apply to SUPPRESSION POOL HIGH WATER TEMPERATURE: (CFR 41.8 to 41.10): Pump NPSH		

Static Simulator Exams: None
Last Revised: 12/22/2004 12:22:00 PM by Hallonquist, Nora E.

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Question No. 15 Exam Bank Question No.: 5973 Revision: 4 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-607 Objective: CRO-3
Question Level: Fundamental Knowledge/Memory

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Select the correct answer:

A small break LOCA has occurred and DW temp is increasing. DW sprays are initiated to maintain temperature below 280°F. Any higher temperature would **always**:

	Answer/Distractor	Justification
a.	cause the reactor vessel water level to be unknown	Incorrect - Above saturation curve at pressure greater than 40 psig
b.	challenge the containment design temperature.	Correct Response - EOP bases for 280°F
c.	place the plant in the unsafe region of the DW Spray Initiation Limit (DWSIL).	Incorrect - DWSIL is safe at pressures greater than 4 psig
d.	cause a loss of NPSH for the RHR pumps.	Incorrect - Torus water temp and pressure affect NPSH

References: EOP-3 Study Guide
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2000210501	Respond to High Drywell Temperature

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295028	EK3.03	Knowledge of the reasons for the following responses as they apply to HIGH DRYWELL TEMPERATURE (CFR 41.5, 45.6): Drywell spray operation: Mark-I&II	3.6	3.9

Static Simulator Exams: None
Last Revised: 12/22/2004 12:23:31 PM by Hallonquist, Nora E.

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Question No. 16 Exam Bank Question No.: 3548 Revision: 3 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-607 Objective: CRO 3
Question Level: Comprehension

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Select the correct answer:

An ATWS condition with a Group 1 isolation and SLC failure had occurred with the following current conditions:

- All rods have been inserted
- Torus Temperature - 180°F and increasing
- Torus Level - 9 ft and decreasing
- Reactor Pressure - 860 psig and rising slowly

The CRS determines an RPV-ED is required.

This RPV-ED is performed to avoid:

	Answer/Distractor	Justification
a.	damaging SRV downstream piping during RPV Emergency Depressurization.	Incorrect - Unrelated to SRV tailpipes
b.	loss of all RPV level instruments after RPV Emergency Depressurization.	Incorrect - Level instrumentation affected by drywell temp
c.	overpressurizing the Primary Containment during RPV Emergency Depressurization.	Correct Response - Highest torus temp which does not exceed PCPL-A on RPVED
d.	excessive hydrodynamic loading on downcomer piping during RPV Emergency Depressurization.	Incorrect - Hydrodynamic loading on downcomers not relevant to HCTL

References: EOP 3 Study Guide
Source: 2003 VY NRC Exam
Required Student References: EOP-1, 3
SRO Reference: None

Task Associations

Task Number	Task Title
3440420302/03	Direct Corrective Actions to Mitigate the Consequences of an Off Normal Event

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295030	EK1.03	Knowledge of the operational implications of the following concepts as they apply to LOW SUPPRESSION POOL WATER LEVEL: (CFR 41.8 to 41.10): Heat capacity	3.8	4.1

Static Simulator Exams: None
Last Revised: 12/22/2004 2:16:19 PM by Hallonquist, Nora E.

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Question No. 17 Exam Bank Question No.: 2226 Revision: 2 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-610 Objective: CRO 2 & 3
Question Level: Fundamental Knowledge/Memory

****

Select the correct answer:

Which ONE of the following is the basis for bypassing the PCIS Group 1 Low-Low Reactor Water Level Isolation logic in EOP-2, Level Power Control (implementing Appendix P)?

	Answer/Distractor	Justification
a.	To preclude inadvertent positive reactivity addition.	Incorrect - Bypassing the LO-LO Level Water Level does not prevent a large positive reactivity insertion. This is accomplished by inhibiting ADS.
b.	To maintain the condenser as a heat sink should RPV level later be decreased.	Correct Response - EOP bases for Appendix P
c.	To maintain the condenser as a heat sink for anticipating an RPVED.	Incorrect - Anticipating an RPVED is not allowed in EOP-2.
d.	To ensure MSIVs can be reopened concurrent with high main steam line radiation.	Incorrect - EOP-2, ARC/OR-5 states that MSIVs should only be reopened if MSL Hi Rad signal is not present.

References: EOP-2 Study Guide
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
3101070502/0	Direct Bypassing of Group I Isolation Signals

3

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295031	2.4.18	Knowledge of specific bases for EOPs (CFR 41.10, 45.13)	2.7	3.6

Static Simulator Exams: None
Last Revised: 12/22/2004 12:24:25 PM by Hallonquist, Nora E.

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Question No. 18 Exam Bank Question No.: 5921 Revision: 3 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-211 Objective: CRO 4
Question Level: Comprehension

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Select the correct answer:

Plant conditions are as follows:

- ATWS with power at 35%
- MSIVs are closed
- CRS has directed SLC injected

Determine the MINIMUM amount of time required to inject Cold Shutdown Boron Weight into the RPV if injecting at the MINIMUM operable flow rate.

	Answer/Distractor	Justification
a.	20 minutes	Incorrect - HSB percentage
b.	28 minutes	Incorrect - For HSB time for injection
c.	30 minutes	Incorrect - CSB percentage
d.	42 minutes	Correct Response: 30 X 48.3 divided by 35 = 41.4 minutes

References: VY Tech Specs; OP 4114; EOP-2
Source: VY Exam Bank
Required Student References: VY Technical Specifications 4.4.A; OP 4114 Figure 1; EOP-2
SRO Reference: None

Task Associations

Task Number	Task Title
2000200501	Respond to ATWS Event(s)

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295037	EK2.04	Knowledge of the interrelations between SCRAM CONDITION PRESENT AND REACTOR POWER ABOVE APRM DOWNSCALE OR UNKNOWN and the following: (CFR 41.7, 45.8): SBLC system	4.4	4.5

Static Simulator Exams: None
Last Revised: 12/22/2004 12:29:23 PM by Hallonquist, Nora E.

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Question No. 19 Exam Bank Question No.: 3718 Revision: 8 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-603 Objective: CRO 3
Question Level: Comprehension

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Select the correct answer:

During 100% power operation, a sudden rise in off-gas rad levels occurs. The plant has entered ON 3152, "Offgas High Radiation". Plant conditions are:

ERFIS is unavailable
Reactor power: 1593 MWt
SJAE Off Gas Rad: PRM 17-150A - 23 mr/hr and increasing
PRM 17-150B - 28 mr/hr and increasing
K-Factor (from Chemistry): 2.4

Seems like incomplete answer.

Determine the µci/sec activity and the required actions.

	Answer/Distractor	Justification
a.	28; no action required	Incorrect - Need to determine µci/sec release from Table 1
b.	5,000; contact Chemistry immediately to ensure Tech Spec 4.6.B.1.a & 4.8.K.2 Do Completed within 4 hours	Correct Response - From Table 1, kf 2.4, PRM at 28 mR/hr. Use actions for 5,000 µci/sec, notify Chemistry
c.	60,000; notify Ops Manager, RE, Chem Supervisor and DCO	Incorrect - From Table 1, this value is incorrect for SJAE Activity
d.	150,000; reduce power per OP 0105, Reactor Operations, until activity is < 150,000 µci/sec	Incorrect - From Table 1, this value is incorrect for SJAE Activity. Power reduction is not required.

References: ON 3152
Source: VY Exam Bank
Required Student References: ON 3152
SRO Reference: None

Task Associations

Task Number	Task Title
2007090501	Respond to High Off-Gas Radiation

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295038	2.4.47	Ability to diagnose and recognize trends in an accurate and	3.4	3.7

		timely manner utilizing the appropriate control room reference material (CFR 41.10, 43.5, 45.12)		

Static Simulator Exams: None
Last Revised: 12/22/2004 12:30:15 PM by Hallonquist, Nora E.

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Question No. 20 Exam Bank Question No.: 5971 Revision: 1 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-286 Objective: CRO 4a
Question Level: Fundamental Knowledge/Memory

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Select the correct answer:

A fire has occurred in the East Switchgear room. The fire is automatically extinguished and the fire is verified to be out. The Shift Manager directs all personnel in the Admin Building lower level and lobby area be evacuated. The reason this is done is:

	Answer/Distractor	Justification
a.	CO2 may leak out and create a hazardous atmosphere.	Correct Response - As specified in OP 3020
b.	Halon may leak out and create a hazardous atmosphere.	Incorrect - No Halon system in SWGR Room
c.	Water may enter the RCA and spread contamination.	Incorrect - No automatic water deployment will occur
d.	These areas are the assembly area for the fire brigade.	Incorrect - This is brigade assembly area but building evacuation is not done for this reason

References: OP 3020
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2867290401	Respond to Pyrotronics Panel Alarms

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
600000	AK3.04	Knowledge of the reasons for the following responses as they apply to PLANT FIRE ON SITE:: Actions contained in the abnormal procedure for plant fire on site	2.8	3.4

Static Simulator Exams: None
Last Revised: 12/22/2004 12:30:36 PM by Hallonquist, Nora E.

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Question No. 21 Exam Bank Question No.: 1055 Revision: 2 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-602 Objective: CRO 1
Question Level: Comprehension

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Select the correct answer.

During 100% power operations the following indications are observed:

- AOG inlet flow increases
- COND VAC LO (7-H-3) alarm is in
- Steam seal pressure is zero

Given these indications, which procedure would address all three of the above conditions?

	Answer/Distractor	Justification
a.	ON 3151, Off Gas Explosion	Incorrect - Off gas explosion is wrong because it will not cause a loss of steam seal pressure.
b.	OT 3120, Condenser High Back Pressure	Correct Response - OT 3120, Loss of Vacuum, contains actions for a loss of vacuum caused by a loss of steam seal pressure.
c.	OP 2160, Turbine Generator	Incorrect - The Turbine Generator OP contains no actions for these conditions.
d.	OP 2150, AOG/Air Evacuation	Incorrect - OP 2150 contains no actions for a loss of steam seal pressure.

References: OT 3120; ARS 7-H-3
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2000080501	Respond to a Loss of Condenser Vacuum

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295002	AK2.11	Knowledge of the interrelations between and the following LOSS OF MAIN CONDENSER VACUUM: (CFR 41.7, 45.8): Seal steam: Plant-Specific	2.6	2.7

Static Simulator Exams: None
Last Revised: 12/22/2004 12:31:10 PM by Hallonquist, Nora E.

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Question No. 22 Exam Bank Question No.: 246 Revision: 4 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-288 Objective: CRO 5
Question Level: Fundamental Knowledge/Memory

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Select the correct answer:

The plant has experienced a LOCA and a loss of normal power. Drywell pressure is 6 psig and steady.

An operator has placed the DRYWELL RRU PCIS TRIP MCA BYPASS SW keylock in the MCA Bypass position on CRP 9-25. This starts RRU numbers _____ immediately for the purpose of _____ .

	Answer/Distractor	Justification
a.	1 and 3; controlling primary containment pressure and temperature	Correct Response - 1 and 3 start immediately, helps maintain containment integrity
b.	2 and 4; controlling primary containment pressure and temperature	Incorrect - Requires use of a pushbutton to allow restart of RRUs 2 and 4
c.	1 and 3; mixing the drywell atmosphere to prevent the formation of pockets of Hydrogen	Incorrect - RRUs limit the average Drywell operating temperature to less than 150°F during normal operation
d.	2 and 4; mixing the drywell atmosphere to prevent the formation of pockets of Hydrogen	Incorrect - Requires use of a pushbutton to restart RRUs 2 and 4

References: OP 2115
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2227020401	Startup Drywell RRUS Following a LOCA

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295010	AK3.02	Knowledge of the reasons for the following responses as they apply to HIGH DRYWELL PRESSURE: (CFR 41.5, 45.6): Increased drywell cooling	3.4	3.4

Static Simulator Exams: None
Last Revised: 12/22/2004 1:21:22 PM by Hallonquist, Nora E.

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Question No. 23 Exam Bank Question No.: 2991 Revision: 4 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-288 Objective: CRO 7
Question Level: Fundamental Knowledge/Memory

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Select the correct answer:

The plant was operating at 100% power when the following occurred:

- A small break LOCA results in DW temperature and pressure rise
- The CRS directs restarting all available RRUs

Predict the long term operation of the RRUs.

	Answer/Distractor	Justification
a.	The RRUs will trip on the loss of N2 due to the Group 3 signal	Incorrect - Loss of N2 will not affect operation.
b.	The RRUs will trip on thermal overload.	Correct Response -
c.	The RRUs will continue to run indefinately since the MCA/LOCA Bypass is in Bypass.	Incorrect - will allow restart but will trip on overload
d.	The RRUs will continue to run since all fans are now in A & B run.	Incorrect - will trip on thermal overload.

References: CWD b191301 sh 1415
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2227020401	Startup Drywell RRUS Following a LOCA

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295012	AA1.01	Ability to operate and/or monitor the following as they apply to HIGH DRYWELL TEMPERATURE: (CFR 41.7, 45.6): Drywell ventilation system	3.5	3.6

Static Simulator Exams: None
Last Revised: 12/22/2004 12:33:13 PM by Hallonquist, Nora E.

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Question No. 24 Exam Bank Question No.: 5972 Revision: 4 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-217 Objective: CRO 14
Question Level: Comprehension

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Select the correct answer:

During power ascension following a short duration shutdown, a PCIS logic failure results in Group 1 Isolation. The following conditions exist as of 0100:

- RCIC running in pressure control mode at 400 gpm
- Level control is with feedwater
- HPCI in standby
- Neither loop of RHR is currently available for torus cooling due to a combination of logic and mechanical failures
- Suppression pool temp 84°F
- Suppression pool level 68,600 cu ft
- The PCIS logic failure, which is keeping the main steam lines isolated, will not be repaired for at least 10 hours
- If RHR repair is prioritized, RHR should be available for torus cooling in 4 to 8 hours

Which of the following describes the appropriate course of action?

	Answer/Distractor	Justification
a.	Maintain RCIC in service. Attempt to recover RHR and place in torus cooling. Torus temperature will stay below the 110°F T.S. limit.	Correct Response - Torus cooling is required because with RCIC in operation without cooling the torus temperature will rise at 3°F per hour. Torus temperature would reach 110°F at 0940, so if torus cooling can be restored within 8 hours, the 110 °F T.S. limit would not be exceeded.
b.	Shutdown RCIC. Attempt to recover RHR and place in torus cooling. Torus temperature will stay below the EOP entry condition.	Incorrect - SRV operation would result in torus temperature rising more rapidly than if RCIC were in service; additionally, the EOP entry condition is only 90°F
c.	Maintain RCIC in service. Attempt to repair the PCIS logic failure and open the MSIVs. Torus temperature will stay below the 110°F T.S. limit.	Incorrect - At 3°F per hour heat-up rate and ten hours to open the MSIVs, would reach 114°F at 0940. Recovering torus cooling is required.
d.	Shutdown RCIC. Attempt to repair the PCIS logic failure and open the MSIVs. Torus temperature will stay below the EOP	Incorrect - SRV operation would result in torus temperature rising more rapidly than if RCIC were in service; additionally, the

	entry condition.	EOP entry condition is only 90°F.

References: OP 2121
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2170020201	Perform RCIC Pump Operability Test

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295013	AK3.01	Knowledge of the reasons for the following responses as they apply to HIGH SUPPRESSION POOL WATER TEMPERATURE: (CFR 41.5, 45.6): Suppression pool cooling operation	3.6	3.8

Static Simulator Exams: None
Last Revised: 12/22/2004 12:33:32 PM by Hallonquist, Nora E.

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Question No. 25 Exam Bank Question No.: 5938 Revision: 3 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-600 Objective: CRO 20
Question Level: Fundamental Knowledge/Memory

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Select the correct answer:

Following a scram the CRS directs the CRO to maintain RPV pressure between 800 and 1000 psig using SRVs. The CRO uses repeated openings of the "A" SRV to stay within the pressure band. The CRS should direct the BOP to:

	Answer/Distractor	Justification
a.	cycle through SRVs with maximum lift interval of 3 minutes per valve to minimize nitrogen depletion in accumulators.	Incorrect - Lift interval is 5 minutes per OP 2122 and no nitrogen depletion will occur since cont nitrogen is lined up
b.	cycle through SRVs without any time limitation.	Incorrect -Must limit time interval per OP 2122
c.	cycle through SRVs with minimum lift interval of 10 minutes per valve to prevent high cycling failure rate.	Incorrect - 10 minutes exceeds allowable time interval per OP 2122
d.	cycle through SRVs with maximum lift interval of 5 minutes per valve to limit local heating.	Correct Response - Per OP 2122 precaution

References: OP 2122
Source: 2001 Fitzpatrick Exam
Required Student References: None
SRO Reference: None

Changed from an SRO question to an RO question

Task Associations

Task Number	Task Title
3100040502/0	Control RPV Pressure Below 1055 PSIG after a SCRAM

3

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295013	AA2.02	Ability to determine and/or interpret the following as they apply to HIGH SUPPRESSION POOL WATER TEMPERATURE:(CFR 41.10, 43.5, 45.13): Localized heating/stratification	3.2	3.5

Static Simulator Exams: None
Last Revised: 12/22/2004 3:41:27 PM by Murphy, Kevin

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Question No. 26 Exam Bank Question No.: 3448 Revision: 2 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-611 Objective: CRO 3
Question Level: Comprehension

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Choose the correct answer:

An unisolable leak from the RWCU system is in progress. All attempts to isolate the leak have been unsuccessful, and the following plant conditions exist:

RPV pressure is 800 psig and steady
RPV level is 150 inches and steady
All injection systems are available with Condensate/Feedwater in service
All control rods are fully inserted in the core
Channel 12 (RB SW 252') temperature is 175°F and steady
Channel 15 (RB NW 280') temperature is 165°F and steady
All other RB locations are ≤ 103°F and steady

What is the reason and required action for conducting a normal or emergency depressurization?

	Answer/Distractor	Justification
a.	An RPV-ED is appropriate because more than one area is affected indicating a threat to secondary containment integrity.	Correct Response - RPV-ED is required because two areas have temperature above max safe with an unisolable primary system leak.
b.	Anticipating an RPV-ED is appropriate because one area is above max safe level indicating a potential threat to secondary containment integrity.	Incorrect - Two different areas are above max safe. RPV-ED is required now.
c.	A normal cooldown using TBVs is appropriate since the condition is not widespread and the main condenser is available.	Incorrect - An unisolable primary system leak requires RPV-ED, not a cooldown.
d.	A normal cooldown using SRVs is appropriate since the condition is not widespread and use of the SRVs will limit the spread of the contamination.	Incorrect - An unisolable primary system leak requires RPV-ED, not a cooldown.

References: EOP Bases
Source: VY Exam Bank
Required Student Reference: EOP-4
SRO Reference: None

****

Question No. 27 Exam Bank Question No.: 3563 Revision: 6 Point Value: 1
SRO Only: No Instructor Guide: LOT-01-626 Objective: CRO 5
Question Level: Comprehension

****

Select the correct answer:

A small primary system leak into secondary containment has forced entry into EOP-4 based on area temperature and water level. Reactor Building HVAC has been restarted via implementation of OE 3107 Appendix AA, Bypassing Reactor Building Non-Rad HVAC Trips.

Shortly thereafter, the Reactor Building Vent Rad Monitors indicate 150 mr/hr.

The appropriate system and operator response is:

	Answer/Distractor	Justification
a.	No automatic system response from the Rx Building HVAC since Appendix AA has bypassed trips, no manual actions required	Incorrect - AA only bypasses Hi Drywell and Low Level Isolation, not RB HVAC or SBGT system
b.	No automatic system response from the Rx Building HVAC since Appendix AA has bypassed trips, operators must manually isolate RB ventilation	Incorrect - "AA" does not bypass RB HVAC Isolation, only Hi Drywell & Low level
c.	Rx Building HVAC will automatically isolate, operators must verify auto isolation and SBGTS start.	Correct Response - Appendix AA does NOT bypass Rad Monitor Isolation. SBGT will start and RB HVAC will trip and isolate.
d.	Rx Building HVAC will automatically isolate, operators must manually start SBGTS.	Incorrect - SBGT system auto start will occur

References: OE 3107 Appendix AA; OP 2115
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2000170501	Respond to Containment Isolations

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO

295034	EK1.02	Knowledge of the operational implications of the following concepts as they apply to SECONDARY CONTAINMENT VENTILATION HIGH RADIATION: (CFR 41.8 to 41.10): Radiation releases	4.1	4.4

Static Simulator Exams: None
Last Revised: 12/22/2004 1:06:31 PM by Hallonquist, Nora E.

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Question No. 28 Exam Bank Question No.: 5981 Revision: 1 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-610 Objective: CRO 3
Question Level: Comprehension

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Select the correct answer:

During an ATWS, the following conditions exist:

- RPV Level is 45"
- RPV Pressure is 850 psig
- Reactor Power - IRM Range 5 decreasing
- 45 rods not inserted
- Torus Temperature - 150°F
- "A/B" RHR operating in torus cooling as directed by EOP-3

A loss of condensate and feedwater results in lowering RPV level requiring RPV-ED.

Regarding RHR operation during and after depressurization of the RPV, which of the following describes the actions required and the reason for those actions?

	Answer/Distractor	Justification
a.	During the RPV-ED, A and B RHR will remain in torus cooling to ensure the Heat Capacity Temperature Limit is not exceeded because protecting containment integrity is the priority.	Incorrect - RHR pumps will be placed in pull-to-lock to prevent inducing a power excursion due to rapid injection during depressurization.
b.	Following the RPV-ED, A and B RHR will be returned to torus cooling to ensure the Heat Capacity Temperature Limit is not exceeded because protecting containment integrity becomes the priority.	Incorrect - Steam flow no longer provides adequate core cooling, and Core Spray injects inside the core shroud, so RHR injection is required to assure adequate core cooling.
c.	During the RPV-ED, A or B RHR will be lined up for RPV injection to ensure there is not an excessive loss of RPV inventory because ensuring adequate core cooling is the priority.	Incorrect - RHR pumps will be placed in pull-to-lock to prevent inducing a power excursion due to rapid injection during depressurization. Steam flow provides adequate core cooling.
d.	Following the RPV-ED, A or B RHR will be lined up for controlled RPV injection, because ensuring adequate core cooling becomes the priority.	Correct Response - Steam flow no longer provides adequate core coolng, and Core Spray injects inside the core shroud, so RHR injection is required for adequate core cooling.

References: EOP Bases
Source: New
Required Student References: EOP-2
SRO Reference: None

Task Associations

Task Number	Task Title
2000200501	Respond to ATWS Event(s)

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
203000	2.4.22	Knowledge of the bases for prioritizing safet functions during abnormal/emergency operations (CFR 43.5, 45.12)	3.0	4.0

Static Simulator Exams: None
Last Revised: 12/22/2004 12:34:50 PM by Hallonquist, Nora E.

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Question No. 29 Exam Bank Question No.: 5940 Revision: 4 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-276 Objective: CRO 3
Question Level: Comprehension

****

Select the correct answer:

The plant is in cold shutdown with "B" RHR in shutdown cooling. The following annunciators have been received:

RHR WATER CONDUC HI (3-L-7)
SERVICE WATER EFFLUENT RAD HI (3-F-6)

Which of these annunciators should receive the highest priority and why?

	Answer/Distractor	Justification
a.	SERVICE WATER EFFLUENT RAD HI indicates radiation release	Correct Response - Rad release is a higher priority than conductivity issue
b.	RHR WATER CONDUC HI indicates fuel damage	Incorrect - Fuel damage would be indicated by radiation.
c.	RHR WATER CONDUC HI indicates radiation release	Incorrect - Radiation does not affect conductivity.
d.	SERVICE WATER EFFLUENT RAD HI indicates in leakage from the normal fuel pool cooling heat exchangers	Incorrect - Fuel pool cooling is cooled by RBCCW.

References: ARS 3-L-7, 3-F-6
Source: 2001 Clinton 1 NRC Exam
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2057090101	Operate the RHR System in the Shutdown Cooling Mode
3410340302/03	Direct Actions to Ensure Compliance with Local, State and Federal Environmental Regulations

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
205000	2.4.45	Ability to prioritize and interpret the significance of each annunciator or alarm (CFR 43.5, 45.3, 45.12)	3.3	3.6

Static Simulator Exams: None
Last Revised: 12/22/2004 2:19:04 PM by Hallonquist, Nora E.

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Question No. 30 Exam Bank Question No.: 5941 Revision: 6 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-206 Objective: CRO 2c
Question Level: Comprehension

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Select the correct answer:

During a manual start of the HPCI System with HPCI flow of 150 gpm a control oil leak develops in the HPCI System causing a complete loss of control oil pressure. As a result of the control oil leak:

	Answer/Distractor	Justification
a.	HPCI Stop and Control Valve will close and the operator must manually close HPCI 25 (Min Flow Valve).	Correct Response - HPCI 25 will not auto close until 800 pgm.
b.	Only HPCI Control Valve will close and HPCI 25 (Min Flow Valve) will go closed. No operator action is required.	Incorrect - HPCI Stop and Control Valves will close, HPCI 25 will be open & requires manual closure.
c.	HPCI Stop and Control Valve will close and HPCI 25 (Min Flow Valve) will go closed. No operator action is required.	Incorrect - HPCI 25 will be open and requires manual closure.
d.	Only HPCI Stop Valve will close, HPCI 25 (Min Flow Valve) remains open and HPCI 25 must be manually closed.	Incorrect - Both HPCI Stop and Control Valve will close.

References: OP 2120
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2060050101	Manually Initiate HPCI

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
206000	A2.15	Ability to (a) predict the impacts of the following on the HIGH PRESSURE COOLANT INJECTION SYSTEM; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: (CFR 41.5 / 45.6): Loss of control oil pressure: BWR-2, 3, 4	3.4	3.5

Static Simulator Exams: None
Last Revised: 12/22/2004 12:35:10 PM by Hallonquist, Nora E.

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Question No. 31 Exam Bank Question No.: 5943 Revision: 3 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-209 Objective: CRO 7, 8
Question Level: Comprehension

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Select the correct answer:

The plant was performing a startup when an LNP occurs. The following plant conditions exist during the LNP:

- "B" D/G started and tripped on lockout
- Rx pressure is at 300 psig and constant
- Rx level reached a low of 141" and is slowly increasing
- DW pressure reached a high of 20 psig and is constant

Fifteen (15) seconds after the LNP, what is the status of CS injection valves: CS-12A and CS-12B?

	Answer/Distractor	Justification
a.	CS-12A - stroking open CS-12B - stroking open	Incorrect - Bus 3 does not have power due to D/G failure (A, C incorrect). CS-12B will remain shut.
b.	CS-12A - stroking open CS-12B - shut	Correct Response - Bus B does not have power due to D/G failure (A, C incorrect). CS-12B will remain shut. CS-12A will open because accident signal (High Drywell Pressure) with a low pressure condition.
c.	CS-12A - shut CS-12B - stroking open	Incorrect - Bus 3 does not have power due to D/G failure (A, C incorrect). CS-12B will remain shut.
d.	CS-12A - shut CS-12B - shut	Incorrect - Valves would remain shut if pressure were high

References: OP 2123
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2097010401	Maintain Reactor Water Level with Core Spray

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
209001	K2.02	Knowledge of electrical power supplies to the following: (CFR 41.7): Valve power	2.5	2.7

Static Simulator Exams: None
Last Revised: 12/22/2004 12:36:50 PM by Hallonquist, Nora E.

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Question No. 32 Exam Bank Question No.: 5944 Revision: 3 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-211 Objective: CRO 6
Question Level: Fundamental Knowledge/Memory

****

Select the correct answer:

The high pressure tap for the jet pump differential pressure indication is sensed from:

	Answer/Distractor	Justification
a.	the SLC injection INNER pipe, ABOVE the core plate.	Incorrect - Tap is below the core plate, see LOT-00-211 Transparency 5
b.	the SLC injection INNER pipe, BELOW the core plate.	Correct Response-Tap is below the core plate on the inner pipe, see LOT-00-211 Transparency 5
c.	the SLC injection OUTER pipe, ABOVE the core plate.	Incorrect - Tap is below the core plate on the inner pipe, see LOT-00-211 Transparency 5
d.	the SLC injection OUTER pipe, BELOW the core plate.	Incorrect - Tap is on the inner pipe, see LOT-00-211 Transparency 5

References: LOT-00-211 Transparency 5
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2027120201	Perform Jet Pump Operability Test

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
211000	K1.07	Knowledge of the physical connections and/or cause-effect relationships between STANDBY LIQUID CONTROL SYSTEM and the following: (CFR 41.2 to 41.9 / 45.7 to 45.8): Jet pump differential pressure indication: Plant-Specific	2.6	2.6

Static Simulator Exams: None
Last Revised: 12/22/2004 2:19:30 PM by Hallonquist, Nora E.

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Question No. 33 Exam Bank Question No.: 3886 Revision: 5 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-212 Objective: CRO-3,4
Question Level: Comprehension

****

Select the correct answer:

The Scram Discharge Volume Water Level Bypass keylock switch was placed in BYPASS to reset a scram, and was left in that position.

During the subsequent startup with the mode switch in STARTUP/HOT STBY and power on Range 2 of the IRMs, the following alarms are received:

- SDV NORTH NOT DRAINED (5-B-7)
- SCRAM VOL DISCH WTR LVL HI (5-L-6) (Red Window)

BEFORE the alarms, the scram instrument volume vent and drain valves were _____ .
AFTER the alarms, the scram instrument volume vent and drain valves are now _____ .

	Answer/Distractor	Justification
a.	Open; Open	Incorrect - The scram is not bypassed in S/U or Run, the valves will close.
b.	Open; Shut	Correct Response - Startup requires a mode switch change. Changing the mode switch deactivates the bypass switch. The discharge volume scram is active, causes a scram and valves to close.
c.	Shut; Open	Incorrect - The scram is not bypassed in S/U or Run, the valves will close.
d.	Shut; Shut	Incorrect - Following the scram, when the switch is placed in BYPASS and the scram reset, the valve will open.

References: ARS 5-L-9, 5-L-6
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2120030101	Bypass a Trip Condition on an RPS Channel

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
212000	A4.12	Ability to manually operate and/or monitor in the control room: (CFR 41.7 / 45.5 to 45.8): Close/open SCRAM instrument volume vent and/or drain valves	3.9	3.9

Static Simulator Exams: None
Last Revised: 12/22/2004 12:37:45 PM by Hallonquist, Nora E.

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Question No. 34 Exam Bank Question No.: 639 Revision: 2 Point Value: 1
SRO Only: No Instructor Guide: LOT-02-215 Objective: CRO 3, 8
Question Level: Comprehension

****

Select the correct answer:

A reactor startup is in progress with the following conditions:

- Reactor power is 25 on Range 3
- IRM "F" bypassed

IRM "C" exhibits erratic behavior. The "C" IRM is declared INOPERABLE and bypassed.

What additional actions, if any, should be implemented?

	Answer/Distractor	Justification
a.	Continue with rod withdrawal and the startup.	Incorrect - < 2 IRM for RB
b.	Insert a rod block.	Correct Response - IRMs C and F are on the same rod block channel, but in different RPS channels. There are still two IRMs per RPS, but the rod block channel is only one remaining (IRM B).
c.	Insert a half scram on Channel "A".	Incorrect - RPS is satisfied
d.	Insert a half scram on Channel "A" and a rod block.	Incorrect - Only RB is < required

References: OP 2131
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2157160401	Respond to IRM System Alarms

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
215003	K1.02	Knowledge of the physical connections and/or cause-effect relationships between INTERMEDIATE RANGE MONITOR (IRM) SYSTEM and the following: (CFR	3.6	3.6

		41.2 to 41.9 / 45.7 to 45.8): Reactor manual control		

Static Simulator Exams: None
Last Revised: 12/22/2004 12:38:04 PM by Hallonquist, Nora E.

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Question No. 35 Exam Bank Question No.: 5945 Revision: 3 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-621 Objective: CRO 13
Question Level: Comprehension

****

Select the correct answer:

A large break LOCA has occurred and the Severe Accident Guidelines (SAGs) are being implemented with the following indications:

- All RPV water level instruments are downscale
- SRMs are fully inserted and the count rate is downscale

"A" Core Spray was restored and RPV water level begins to rise.

What is the MINIMUM RPV water level at which the SRMs indication will be valid?

	Answer/Distractor	Justification
a.	Top of active fuel (+6 inches)	Incorrect - Not minimum level
b.	Minimum steam cooling level (-19 inches)	Incorrect - Not minimum level
c.	Two-thirds core height (-48 inches)	Correct Response - SRMs must be covered with water to thermalize neutrons. When the SRMs are fully inserted in the core, they are 18" below the core midplane (-87"). Therefore, the lowest RPV water level where the SRMs are covered with water is at -48".
d.	Bottom active fuel (-144 inches)	Incorrect - SRM uncovered

References: LOT-00-621
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2150230101	Operate the Neutron Monitoring System

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
215004	K1.06	Knowledge of the physical connections and/or cause-effect relationships between SOURCE RANGE MONITOR	2.8	2.8

		(SRM) SYSTEM and the following: (CFR 41.2 to 41.9 / 45.7 to 45.8): Reactor vessel		

Static Simulator Exams: None
Last Revised: 12/22/2004 1:17:56 PM by Hallonquist, Nora E.

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Question No. 36 Exam Bank Question No.: 5922 Revision: 3 Point Value: 1
SRO Only: No Instructor Guide: LOT-05-215 Objective: CRO 3
Question Level: Comprehension

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Select the correct answer:

During operation at rated power, the following indications are received on CRP 9-5:

- APRM DWNSCL (5-M-4) annunciator
- APRM downscale light for APRM "C"
- ROD WTHDRW BLOCK (5-D-3) annunciator

If the "C" IRM Mode Switch was placed in STANDBY what response would result?

	Answer/Distractor	Justification
a.	IRM "C" INOP or Hi-Hi condition at CRP 9-12 only and a half scram	Correct Response - Taking the IRM Mode Switch out of operate results in an INOP condition. Companion APRM downscale and INOP IRM results in RPS actuation. With Mode Switch in RUN the alarms and indications are on the 9-12 only.
b.	IRM "C" INOP or Hi-Hi condition indicated at CRP 9-5 and 9-12 and a full scram	Incorrect - No 9-5 indication, half scram only
c.	IRM "C" INOP or Hi-Hi condition at CRP 9-12 only with no RPS actuation	Incorrect - RPS actuates
d.	IRM "C" INOP or Hi-Hi condition indicated at CRP 9-5 and 9-12 with no RPS actuation	Incorrect - RPS actuates, no 9-5 indication

References: OP 2132; ARS 5-M-4
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2150230101	Operate the Neutron Monitoring System

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO

215005	K3.06	Knowledge of the effect that a loss or malfunction of the AVERAGE POWER RANGE MONITOR/LOCAL POWER RANGE MONITOR SYSTEM will have on following: (CFR 41.7 / 45.4): IRM: Plant-Specific	3.5	3.6

Static Simulator Exams: None
Last Revised: 12/22/2004 1:17:32 PM by Hallonquist, Nora E.

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Question No. 37 Exam Bank Question No.: 5924 Revision: 2 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-217 Objective: CRO-3, 22
Question Level: Comprehension

****

Select the correct answer:

The plant is operating at 100% power when a Loss of Normal Power occurs. RCIC is manually initiated for RPV level control and has the following indications:

Pump Discharge Pressure - 825 PSIG
Pump Suction Pressure - 18" Hg Vac
Turbine Speed - 2300 RPM
Turbine Inlet Pressure - 820 PSIG
Turbine Exhaust Pressure - 4 PSIG

For the above conditions, WHICH ONE of the following is correct?

	Answer/Distractor	Justification
a.	RCIC operation under these conditions should NOT continue because turbine damage will occur.	Incorrect - Allowable turbine exhaust pressure is 0-20 psig
b.	RCIC operation under these conditions should NOT continue because control oil pressure is too low.	Incorrect - Minimum speed for oil pressure is 2200 rpm
c.	RCIC operation under these conditions should NOT continue because pump cavitation will occur.	Correct Response - Normal allowable suction pressure is 6-30 psig
d.	Continued RCIC operation is allowed.	Incorrect - Suction pressure is below allowable band

References: OP 2121
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2170030101	Manually Initiate Startup of the RCIC System

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO

217000	K5.01	Knowledge of the operational implications of the following concepts as they apply to REACTOR CORE ISOLATION COOLING SYSTEM (RCIC): (CFR 41.5 / 45.3): Indications of pump cavitation	2.6	2.6

Static Simulator Exams: None
Last Revised: 12/22/2004 1:07:46 PM by Hallonquist, Nora E.

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Question No. 38 Exam Bank Question No.: 1360 Revision: 3 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-217 Objective: CRO 4
Question Level: Comprehension

****

Select the correct answer:

Following a reactor scram, RCIC is injecting to the reactor vessel. The RCIC flow control unit is placed in **MANUAL** and as the reactor is depressurized, Reactor pressure drops from 900 psig to 500 psig.

Select the effect the drop in system inlet pressure will have on RCIC flow and speed.

	Answer/Distractor	Justification
a.	RCIC flow will decrease. Turbine and pump speed are constant.	Incorrect - Flow increases
b.	RCIC flow will decrease. Turbine and pump speed decrease.	Incorrect - Flow increases
c.	RCIC flow will increase. Turbine and pump speed are constant.	Correct Response - In manual, speed is automatically kept constant. RCIC has a centrifugal pump. As reactor pressure decreases, flow will increase as per a typical pump curve.
d.	RCIC flow will increase. Turbine and pump speed increase.	Incorrect - Turbine and pump speed constant in manual

References: OP 2121
Source: 2003 VY NRC Exam
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2177130401	Maintain Reactor Water Level with RCIC

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
217000	A3.03	Ability to monitor automatic operations of the REACTOR CORE ISOLATION COOLING SYSTEM (RCIC) including: (CFR 41.7 / 45.7): System pressure	3.7	3.6

Static Simulator Exams: None

Last Revised: 12/22/2004 2:15:49 PM by Hallonquist, Nora E.

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Question No. 39 Exam Bank Question No.: 5946 Revision: 5 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-239 Objective: CRO 6, 7
Question Level: Comprehension

****

Select the correct answer:

The plant is in hot shutdown preparing for a planned outage, and the following conditions exist:

- Drywell is de-inerted for entry with all nitrogen to containment secured
- Instrument air to containment in service, but a leaking spectacle flange has depressurized the header
- The inboard and outboard MSIVs have closed
- Reactor pressure is 980 psig and rising

Because the SRVs would be unavailable after _____ , RPV pressure would BEST be maintained using _____ .

	Answer/Distractor	Justification
a.	2-5 openings; sustained SRV operation	Incorrect - The EOPs allow/encourage sustained SRV opening to conserve pneumatics, but analyzing the given conditions, the use of HPCI and RCIC are a more conservative action.
b.	2-5 openings; HPCI and RCIC operation	Correct Response - SRV accumulators allow for 2-5 openings. Using HPCI and RCIC conserves pneumatics for potential ADS/RPV-ED operation.
c.	6-10 openings; sustained SRV operation	Incorrect - SRV accumulators allow for 2-5 openings.
d.	6-10 openings; HPCI and RCIC operation	Incorrect - SRV accumulators allow for 2-5 openings.

References: UFSAR
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2007400501	Control RPV Pressure Using Bypass Valves, HPCI, RCIC, SRVS, RWCU, Steam Line Drains

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
218000	A2.03	Ability to (a) predict the impacts of the following on the AUTOMATIC DEPRESSURIZATION SYSTEM; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: (CFR 41.5 / 45.6): Loss of air supply to ADS valves: Plant-Specific	3.4	3.6

Static Simulator Exams: None
Last Revised: 12/22/2004 12:41:28 PM by Hallonquist, Nora E.

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2005 SROU/SROI

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Question No. 40 Exam Bank Question No.: 5974 Revision: 3 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-218 Objective: CRO-2
Question Level: Comprehension

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Select the correct answer:

A small-break LOCA has occurred, HPCI and RCIC have failed. The following plant conditions were achieved as of 1100:

- Drywell pressure 3.0 psig and slowly increasing
- RPV level 125 inches, with level falling at 4.25 inches per minute
- Low Pressure ECCS Two RHR pumps running with normal discharge pressure

Assume no operator action is taken, at what time will the ADS valves FIRST open?

	Answer/Distractor	Justification
a.	1102	Incorrect - Low low level is NOT present, therefore, level must lower to 82.5 inches (10 minutes) before the 120-second timer starts
b.	1108	Incorrect - Low low level is NOT present, therefore, level must lower to 82.5 inches (10 minutes) before the 120-second timer starts
c.	1110	Incorrect - Low low level is NOT present, therefore, level must lower to 82.5 inches (10 minutes) before the 120-second timer starts
d.	1112	Correct Response - 10 minutes to 82.5 plus 2 minute timer = 12 minutes

References: OP 2132
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2187010401	Inhibit Automatic Initiation of ADS

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
218000	K5.01	Knowledge of the operational implications of the following concepts as they apply to AUTOMATIC DEPRESSURIZATION SYSTEM: (CFR 41.5 / 45.3): ADS logic operation	3.8	0.8

Static Simulator Exams: None
Last Revised: 12/22/2004 12:41:45 PM by Hallonquist, Nora E.

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Question No. 41 Exam Bank Question No.: 5948 Revision: 3 Point Value: 1
SRO Only: No Instructor Guide: LOT-01-223 Objective: CRO 7
Question Level: Fundamental Knowledge/Memory

****

Select the correct answer:

The CRO is at the controls when he receives a radiation alarm and no automatic actions occur. The BOP operator obtains the following backpanel rad monitor readings:

A Refuel floor	50 mr/hr
B Refuel floor	30 mr/hr
A RB Exhaust	7 mr/hr
B RB Exhaust	Failed upscale

For the Group 3 isolation valves the operators should:

	Answer/Distractor	Justification
a.	take no additional action.	Incorrect - GP 3 signal present
b.	only close the inboard valves.	Incorrect - All valves should be shut
c.	only close the outboard valves.	Incorrect - All valves should be shut
d.	close both inboard and outboard valves.	Correct Response - Any single refuel floor or RB exhaust rad monitor that is upscale causes a complete isolation

References: ON 3153; ARS 5-J-1
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2000170501	Respond to Containment Isolations

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
223002	A2.07	Ability to (a) predict the impacts of the following on the PRIMARY CONTAINMENT ISOLATION SYSTEM/ NUCLEAR STEAM SUPPLY SHUT-OFF; and (b) based those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: (CFR 41.5 / 45.6): Various process	2.7	2.9

		instrumentation failures		

Static Simulator Exams: None
Last Revised: 12/22/2004 1:17:06 PM by Hallonquist, Nora E.

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Question No. 42 Exam Bank Question No.: 5985 Revision: 0 Point Value: 1
SRO Only: No Instructor Guide: LOT-01-223 Objective: CRO 7
Question Level: Comprehension

****

Select the correct answer:

During a reactor startup, the following conditions exist:

- Rx Pressure 150 psig
- RPV Water Level 160" using condensate
- RWCU letdown 60 gallons/minute

A loss of DC-2 occurs concurrent with a reactor scram due to high IRM condition. RPV level decreases to 124" and recovers to 155".

What is the effect on PCIS Group 5?

	Answer/Distractor	Justification
a.	PCIS Group 5 will actuate, one of the two inlet PCIS valves will isolate	Correct Response - CU-18 will not shut, powered by DC-2
b.	PCIS Group 5 will actuate, both inlet PCIS valves will isolate	Incorrect - CU-18 will not shut
c.	PCIS Group 5 will NOT actuate, only one inlet PCIS valve is available for isolation	Incorrect - GP 5 signal present < 127"
d.	PCIS Group 5 will NOT actuate, both inlet PCIS valves are available for isolation	Incorrect - GP 5 signal present < 127"

References: OP 2115; OP 2145
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2000170501	Respond to Containment Isolations

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
223002	K6.02	Knowledge of the effect that a loss or malfunction of the following will have on the PRIMARY CONTAINMENT ISOLATION SYSTEM/ NUCLEAR STEAM SUPPLY	3.0	3.2

		SHUT-OFF: (CFR 41.7 / 45.7): D.C. electrical distribution		

Static Simulator Exams: None
Last Revised: 12/22/2004 12:42:29 PM by Hallonquist, Nora E.

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Question No. 43 Exam Bank Question No.: 5949 Revision: 4 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-602 Objective: CRO 3, 5
Question Level: Comprehension

****

Select the correct answer:

Following a feedwater transient the following plant conditions exist:

- DW pressure 2.8 psig
- Rx level 255"
- Rx pressure 900 psig and rising

If an SRV is used for pressure control, the opening time may be _____ and the SRV operation should be confirmed using the _____ .

	Answer/Distractor	Justification
a.	slower; SRV tailpipe temperature display	Correct Response - See Note, OT 3114, Section 7; actuation is slower with water and temperature switch directed to be used
b.	slower; SRV tailpipe pressure switch	Incorrect - SRV will actuate slower but tailpipe pressure switch may not actuate properly
c.	faster; SRV tailpipe temperature display	Incorrect - SRV will not actuate faster
d.	faster; SRV tailpipe pressure switch	Incorrect - SRV will not actuate faster and tailpipe pressure switch may not actuate properly

References: OT 3114, Note, Section 7
Source: new
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2007400501	Control RPV Pressure Using Bypass Valves, HPCI, RCIC, SRVS, RWCU, Steam Line Drains

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
239002	A4.06	Ability to manually operate and/or monitor in the control room: (CFR 41.7 / 45.5 to 45.8): Reactor water level	3.9	4.1

Static Simulator Exams: None
Last Revised: 12/22/2004 1:16:54 PM by Hallonquist, Nora E.

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Question No. 44 Exam Bank Question No.: 5737 Revision: 1 Point Value: 1
SRO Only: No Instructor Guide: LOT-01-259 Objective: CRO 5e
Question Level: Comprehension

****

Select the correct answer:

The plant is operating at 100% power. The "A" main steam line flow signal fails to "0" due to a blown fuse.

Without operator action, predict the RPV water level response, and determine the correct procedure to mitigate the transient. SRO level?

	Answer/Distractor	Justification
a.	RPV water level lowers to the scram setpoint, OT 3100 Reactor Scram	Incorrect - Stabilizes at lower level
b.	RPV water level lowers and stabilizes at a level above the scram setpoint, OT 3113 Reactor Low Level	Correct Response - SF input 1/4 of signal. Level signal compensates for SF/FF mismatch.
c.	RPV water level rises to the turbine trip setpoint, OT 3100 Reactor Scram	Incorrect - Water level lowers
d.	RPV water level rises and stabilizes at a level below the turbine trip setpoint, OT 3114 Reactor High Level	Incorrect - Water level lowers

References: OT 3113
Source: 2003 VY NRC Exam
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2000310501	Respond to Low Reactor Water Level

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
259002	A2.01	Ability to (a) predict the impacts of the following on the REACTOR WATER LEVEL CONTROL SYSTEM; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: (CFR 41.5 / 45.6): Loss of any number of main steam flow inputs	3.3	3.4

Static Simulator Exams: None
Last Revised: 12/22/2004 2:15:07 PM by Hallonquist, Nora E.

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Question No. 45 Exam Bank Question No.: 5983 Revision: 0 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-261 Objective: CRO 3
Question Level: Fundamental Knowledge/Memory

****

Select the correct answer:

The following plant conditions exist:

- Plant is at 100% power
- SBGT "A" aligned for venting
- SBGT "B" in standby lineup

HPCI is started for the full flow test surveillance with no further operator action. What is the position of the following SBGT Valves:

- Inlet Isolation SGT-2A _____
- Inlet Isolation SGT-2B _____
- Inlet Bypass SGT-1A/B _____

	Answer/Distractor	Justification
a.	open, closed, closed	Incorrect - 2B auto open on HPCI start
b.	open, open, closed	Correct Response - 2A already open; 2B opens on HPCI start; 1A/B remain shut, only open on auto initiation, not HPCI start
c.	closed, closed, open	Incorrect - 1A/1B open on auto initiation only, not HPCI start
d.	closed, open, open	Incorrect - 1A/1B open on auto initiation only, not HPCI start

References: OP 2117
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2610010101	Perform Lineups on the SBGT System

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
261000	A3.03	Ability to monitor automatic operations of the STANDBY	3.0	2.9

		GAS TREATMENT SYSTEM including: (CFR 41.7 / 45.7): Valve operation		

Static Simulator Exams: None
Last Revised: 12/22/2004 12:43:33 PM by Hallonquist, Nora E.

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Question No. 46 Exam Bank Question No.: 5925 Revision: 4 Point Value: 1
SRO Only: No Instructor Guide: LOT-03-262 Objective: CRO 7
Question Level: Comprehension

****

Select the correct answer:

The "UPS FDR SIG BLK" keylocks are inadvertently left in "BLK". A LOCA and LNP occurs. How will UPS respond?

	Answer/Distractor	Justification
a.	UPS will remain on the A/C drive and Bus 89A/B will be deenergized until the D.G.s repower busses 8/9.	Incorrect - The shift to DC is based on A/C U.V.
b.	UPS will trip and Bus 89 A/B will deenergize, and then automatically transfer to the maintenance tie.	Incorrect - No auto transfer to maintenance tie
c.	UPS will shift to DC drive and return to AC drive when the emergency diesel generators power busses 3/8 and 4/9.	Correct Response - The block stopped the shunt trip of the feeder breakers. When the A/C UV clears, the AC motor starts.
d.	UPS will shift to DC drive and return to AC drive 5 minutes after the emergency diesel generators power busses 3/8 and 4/9.	Incorrect - The only delay in the system is a 2 sec delay for RHR 27 operation.

References: OP 2143; LOT-00-264
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2007020501	Respond to Loss of Normal Power

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
262001	K1.04	Knowledge of the physical connections and/or cause-effect relationships between A.C. ELECTRICAL DISTRIBUTION and the following: (CFR 41.2 to 41.9 / 45.7 to 45.8): Uninterruptible power supply	3.1	3.4

Static Simulator Exams: None
Last Revised: 12/22/2004 12:43:59 PM by Hallonquist, Nora E.

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Question No. 47 Exam Bank Question No.: 5977 Revision: 4 Point Value: 1
SRO Only: No Instructor Guide: LOT-03-262 Objective: CRO 6
Question Level: Fundamental Knowledge/Memory

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Select the correct answer:

The "A" UPS requires maintenance and is to be removed from service per OP 2143, "480 and Lower Voltage System". The first step is for the BOP to place UPS-1A Control Selector Keylock Switch on CRP 9-3 to OFF. The BOP should expect Bus 89A voltage to:

	Answer/Distractor	Justification
a.	remain constant as only the AC motors "M" contactors opened.	Incorrect -DC motor also deenergizes.
b.	Remain constant as only the feeder breaker from Bus 9 opened.	Incorrect - DC motor also deenergizes. Breaker on Bus 9 trips on a LOCA signal.
c.	Drop to 0 because UPS feeder breaker on Bus 89A tripped.	Incorrect - Breaker opens when a pistol grip switch is taken to trip.
d.	Drop to 0 because both the AC and DC drive motors are deenergized.	Correct Response - Keylock deenergizes both motors.

References: OP 2143
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2627310101	Transfer MCC-89A(B) Power from RUPS to the Maintenance TIE

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
262002	A1.02	Ability to predict and/or monitor changes in parameters associated with operating the UNINTERRUPTABLE POWER SUPPLY (A.C./ D.C.) controls including: (CFR 41.5 / 45.5) Motor generator outputs	2.5	2.9

Static Simulator Exams: None
Last Revised: 12/22/2004 12:44:19 PM by Hallonquist, Nora E.

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Question No. 48 Exam Bank Question No.: 5927 Revision: 1 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-283 Objective: CRO 3
Question Level: Fundamental Knowledge/Memory

****

Select the correct answer:

An electrical fault occurred on Bus 1 three seconds ago, generating an LNP signal and a load shed. What is the CURRENT power source for ERFIS?

	Answer/Distractor	Justification
a.	UPS 2A Battery	Correct Response - Transfers to battery on loss of power
b.	John Deere Diesel	Incorrect - A loss of Bus 1 will result in a loss of Bus 11 (and if sustained, an auto start of the JDDG); however, the arrangement with the battery/inverter will result in a seamless transfer to battery power without transfer of the static switch
c.	Alt S/D Batt 1AS	Incorrect - 1AS does NOT supply power to ERFIS
d.	Alt S/D Batt 2AS	Incorrect - 2AS does NOT supply power to ERFIS

References: OP 2148 (Discussion Section)
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2007020501	Respond to Loss of Normal Power

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
262002	K1.06	Knowledge of the physical connections and/or cause-effect relationships between UNINTERRUPTABLE POWER SUPPLY (A.C./ D.C.) and the following: (CFR 41.2 to 41.9 / 45.7 to 45.8): Unit computer: Plant-Specific	2.6	2.7

Static Simulator Exams: None
Last Revised: 12/22/2004 12:44:41 PM by Hallonquist, Nora E.

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Question No. 49 Exam Bank Question No.: 5989 Revision: 3 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-263 Objective: CRO 5
Question Level: Comprehension

****

Select the correct answer:

An electrical transient has occurred resulting in the following:

- VITAL MG SET DC LOSS/DC RUN (8-P-8)
- BUS 8 MCC TROUBLE (8-J-8)
- Bus 8 voltage - 480V
- Bus 9 voltage - 480V
- FWLC and FRVs remain in automatic

What is the DC electrical power supply for the Vital AC MG?, Yaw ?.

	Answer/Distractor	Justification
a.	DC-1 is currently supplying power to Vital AC	Incorrect - DC-3 is the only power supply for the DC motor on the MG set.
b.	DC-3 is currently supplying power to Vital AC	Correct Response - DC-3 is the only power supply for the DC motor on the MG set and DC-2 is available.
c.	DC-1 is the normal power supply but DC power is unavailable to the Vital AC MG.	Incorrect - If DC power was lost the FRVs would have locked up.
d.	DC-3 is the normal power supply but DC power is unavailable to the Vital AC MG.	Incorrect - If DC power was lost the FRVs would have locked up.

References: ARS (8-P-8); OP 2144
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2007840501	Respond to a Loss of Vital AC Power

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
263000	K2.01	Knowledge of electrical power supplies to the following: (CFR 41.7): Major D.C. loads	3.1	3.4

Static Simulator Exams: None
Last Revised: 12/22/2004 1:08:27 PM by Hallonquist, Nora E.

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Question No. 50 Exam Bank Question No.: 5950 Revision: 2 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-263 Objective: CRO 9
Question Level: Fundamental Knowledge/Memory

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Select the correct answer:

BATT RM EXH FAN (SEF-3) has tripped.

Which of the following describes a required action and the reason for that action?

	Answer/Distractor	Justification
a.	Provide portable ventilation to prevent an explosive atmosphere.	Correct Response Hydrogen and oxygen create an explosive mixture. When battery room exhaust fan SEF-3 is not running, portable ventilation shall be provided.
b.	Sample the battery room atmosphere weekly to prevent an asphyxiating atmosphere.	Incorrect - Concern is hydrogen and oxygen creating an explosive mixture. When battery room exhaust fan SEF-3 is not running, samples of the battery room atmosphere shall be taken daily.
c.	Provide portable ventilation to prevent an asphyxiating atmosphere.	Incorrect - Concern is hydrogen and oxygen creating an explosive mixture.
d.	Sample the battery room atmosphere weekly to prevent an explosive atmosphere.	Incorrect - Samples of the battery room atmosphere shall be taken daily.

References: OP 2192 Precaution #19
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2997270301	Follow Operating Instructions and Procedures

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
263000	K5.01	Knowledge of the operational implications of the following concepts as they apply to D.C. ELECTRICAL DISTRIBUTION: (CFR 41.5 / 45.3): Hydrogen generation during battery charging	2.6	2.9

Static Simulator Exams: None
Last Revised: 12/22/2004 12:45:04 PM by Hallonquist, Nora E.

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Question No. 51 Exam Bank Question No.: 3741 Revision: 3 Point Value: 1
SRO Only: No Instructor Guide: LOT-01-262 Objective: CRO 6, 7
Question Level: Comprehension

****

Select the correct answer:

During power operations, the following occurs:

- DW pressure rises to 4 psig
- The 3T1 breaker trips on overload

Which of the statements below accurately describes the loads response when the Diesel energizes the bus?

	Answer/Distractor	Justification
a.	The SW, RHR, and Core Spray pumps start immediately since their breakers are already closed	Incorrect - Core Spray and 1 RHR pump starts are delayed by 10 sec and 5 sec respectively
b.	The RHR and Core Spray pumps start immediately, the SW pump sequences on in 10 seconds	Incorrect - SW pump starts immediately, CS pump starts are delayed
c.	The SW pump and 1 RHR start immediately followed by the second RHR pump and finally the Core Spray pump	Correct Response - Correct loading has SW and 1 RHR pump start immediately followed by 1 RHR pump (5 sec) and CS pump (10 sec)
d.	The SW pump and Core Spray pump start immediately followed by 1 RHR pump and finally the 2nd RHR pump	Incorrect - Core Spray pump start is delayed

References: UFSAR Table 8.5.1b
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2007020501	Respond to Loss of Normal Power

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
264000	K5.06	Knowledge of the operational implications of the	3.4	3.5

		following concepts as they apply to EMERGENCY GENERATORS (DIESEL/JET): (CFR 41.5 / 45.3: Load sequencing		

Static Simulator Exams: None
Last Revised: 12/22/2004 12:45:28 PM by Hallonquist, Nora E.

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Question No. 52 Exam Bank Question No.: 5951 Revision: 2 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-239 Objective: CRO 3
Question Level: Fundamental Knowledge/Memory

****

Select the correct answer:

The plant is operating at 70% reactor power.
The CRO depresses the TEST pushbutton for MS-86B, 'B' OUTBOARD MSIV.

As _____ bleeds off, the MSIV will close _____ .

	Answer/Distractor	Justification
a.	nitrogen; slowly	Incorrect - Outboard MSIVs use air not nitrogen
b.	nitrogen; in 3-5 seconds	Incorrect - Outboard MSIVs use air not nitrogen and the valve closes slowly with the test pushbutton
c.	air; slowly	Correct Response - Outboard MSIVs use air not nitrogen
d.	air; in 3-5 seconds	Incorrect - The valve will close slowly using the test pushbutton.

References: OP 4113; OP 2191
Source: Fitzpatrick 2003
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2397030201	Perform MSIV Partial Closure Test

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
300000	K1.05	Knowledge of the physical connections and/or cause-effect relationships between INSTRUMENT AIR SYSTEM and the following: (CFR 41.2 to 41.9 / 45.7 to 45.8): Main Steam Isolation valve air	3.1	3.2

Static Simulator Exams: None
Last Revised: 12/22/2004 1:25:26 PM by Hallonquist, Nora E.

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Question No. 53 Exam Bank Question No.: 165 Revision: 4 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-601 Objective: CRO 1
Question Level: Comprehension

****

Select the correct answer:

The plant is operating at full power when the CRO observes the following alarming annunciators:

- FUEL POOL CLG SYS TEMP HI (4-H-7)
- DWL EQMT DRN SUMP TEMP HI (4-L-3)
- RX BLDG EQMT DRN SUMP SOUTH TEMP HI (4-L-5)
- RX BLDG EQMT DRN SUMP NORTH TEMP HI (4-M-5)

Predict the effect on additional plant equipment.

	Answer/Distractor	Justification
a.	Recirc Lube Oil high temperatures	Incorrect - Cooled by SW not RBCCW
b.	Steam Tunnel high temperatures	Incorrect - Not cooled by RBCCW
c.	Drywell temperature increase	Correct Response - DW RRUs cooled by RBCCW, Alarms indicate loss of RBCCW
d.	Rx Bldg areas temperature increase	Incorrect - Not cooled by RBCCW

References: ON 3147; ARS 4-H-7, 4-L-3, 4-L-5, 4-M-5
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2000110501	Respond to RBCCW Failure

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
400000	K3.01	Knowledge of the effect that a loss or malfunction of the COMPONENT COOLING WATER SYSTEM will have on following: (CFR 41.7 / 45.4): Loads cooled by CCWS	2.9	3.3

Static Simulator Exams: None
Last Revised: 12/22/2004 12:45:52 PM by Hallonquist, Nora E.

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Question No. 54 Exam Bank Question No.: 5873 Revision: 1 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-201 Objective: CRO 2c
Question Level: Fundamental Knowledge/Memory

****

Select the correct answer:

Given the following:

- The plant is operating at 100% power
- An Accumulator Trouble alarm is received for a control rod at position 48
- The alarm is determined to be caused by low accumulator pressure
- An AO is asked to clear the alarm condition

While the accumulator is isolated and is being recharged, a reactor scram occurs.

How will the control rod respond and what followup action is required?

	Answer/Distractor	Justification
a.	The control rod will remain at its present position and not move. Restore the accumulator to service immediately.	Incorrect - at an RPV pressure of > 800 psig, control rods will scram within TS allowable limits due to the dP of reactor pressure alone (no accumulator required)
b.	The control rod will scram within Tech Spec allowable insertion time. Verify all rods inserted using the PSRP.	Correct Response - at an RPV pressure of > 800 psig, control rods will scram within TS allowable limits due to the dP of reactor pressure alone (no accumulator required)
c.	The control rod will scram at a slower rate than Tech Spec allowable insertion time. Verify all rods inserted using the PSRP.	Incorrect - at an RPV pressure of > 800 psig, control rods will scram within TS allowable limits due to the dP of reactor pressure alone (no accumulator required)
d.	The control rod will drift into the fully inserted position.. Restore the accumulator to service immediately.	Incorrect - at an RPV pressure of > 800 psig, control rods will scram within TS allowable limits due to the dP of reactor pressure alone (no accumulator required)

References: T.S. Bases 3.3.D
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2010010404	Respond to Control Rod Drive Accumulator Trouble

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
201003	A2.05	Ability to (a) predict the impacts of the following on the CONTROL ROD AND DRIVE MECHANISM; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: (CFR 41.5 / 45.6): Reactor Scram	4.1	4.1

Static Simulator Exams: None
Last Revised: 12/22/2004 12:46:20 PM by Hallonquist, Nora E.

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Question No. 55 Exam Bank Question No.: 5928 Revision: 3 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-202 Objective: CRO-6, 7
Question Level: Comprehension

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Select the correct answer:

During a reactor startup with both Recirc Pumps operating at minimum speed and reactor power at 20%, the "A" Recirc Pump trips.

The drive flow in Recirc Loop "B" is observed to be **4.6 mlb/hr**.

How will indicated core flow on the ERFIS Power-to-Flow map and CRP 9-5 recorder compare to actual flow, and why?

	Answer/Distractor	Justification
a.	Indicated flow is lower than actual due to reverse (negative) flow in the "A" loop jet pumps	Incorrect - Flow is forward
b.	Indicated flow is lower than actual due to forward (positive) flow in the "A" loop jet pumps	Correct Response - At driving flows of <5 mlb/hr in the operating loop, forward flow will occur in the idle loop but it will be subtracted as though it were reverse flow, causing indicated core flow to be less than actual
c.	Indicated flow is higher than actual due to reverse (negative) flow in the "A" loop jet pumps	Incorrect - The core flow summer will subtract a greater flow signal than is actually bypassing the core, resulting in an indicated flow that is lower than actual flow
d.	Indicated flow is higher than actual due to forward (positive) flow in the "A" loop jet pumps	Incorrect - At a driving flow of > 5mlb/hr in the operating loop, reverse flow will occur in the idle loop jet pumps, AND the core flow summer will subtract a greater flow signal than is actually bypassing the core, resulting in an indicated flow that is lower than actual

References: OP 2110
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2990090301	Report Abnormal Parameters or Conditions

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
202001	A4.12	Ability to manually operate and/or monitor in the control room: (CFR 41.7 / 45.5 to 45.8): Core flow	3.9	3.8

Static Simulator Exams: None
Last Revised: 12/22/2004 12:47:05 PM by Hallonquist, Nora E.

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Question No. 56 Exam Bank Question No.: 5953 Revision: 4 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-204 Objective: CRO 3
Question Level: Fundamental Knowledge/Memory

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Select the correct answer:

During a reactor startup with "A" RWCU pump inservice operating in the letdown mode for RPV water level control, the following alarm is observed:

- RWCU DRAIN LINE PRESS HI/LO (4-J-6)

Predict the automatic response of the RWCU system.

	Answer/Distractor	Justification
a.	Drain flow regulator (PCV-55) shut, RWCU pump tripped	Incorrect - PCV-55 shut only. RWCU pump unaffected.
b.	Drain flow regulator (PCV-55) remains open, RWCU pump tripped	Incorrect - PSV-55 shuts pump, should not trip
c.	Drain flow regulator (PCV-55) shut, RWCU pump operating	Correct Response - PSV-55 shuts pump, unaffected by signal
d.	Drain flow regulator (PCV-55) remains open, RWCU pump operating	Incorrect - PCV-55 shut

References: ARS 4-J-6
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2040080101	Operate the RWCU System to Conduct Letdowns

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
204000	A3.01	Ability to monitor automatic operations of the REACTOR WATER CLEANUP SYSTEM including: (CFR 41.7 / 45.7): System pressure downstream of the pressure regulating valve: LP-RWCU	3.3	3.3

Static Simulator Exams: None
Last Revised: 12/22/2004 12:47:24 PM by Hallonquist, Nora E.

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Question No. 57 Exam Bank Question No.: 5988 Revision: 2 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-216 Objective: CRO 11c
Question Level: Fundamental Knowledge/Memory

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Select the correct answer:

During a reactor plant cooldown with the following conditions:

- RPV water level 151" steady
- RPV Pressure 260 psig and decreasing
- DW Temp 215 °F and rising slowly

If conditions continue to degrade, the RPV water level instruments are susceptible to _____ leg flashing resulting in RPV water indicated level failing _____ ..

	Answer/Distractor	Justification
a.	reference; high	Correct Response - When reference legs flash, the sensed dP goes down, causing indicated level to rise.
b.	reference; low	Incorrect - When reference legs flash, the sensed dP goes down, causing indicated level to rise.
c.	variable; high	Incorrect - The reference legs are much longer than the variable legs and are significantly more affected by Drywell temperature. The variable legs are kept full by the reactor water.
d.	variable; low	Incorrect - When reference legs flash, the sensed dP goes down, causing indicated level to rise.

References: EOP-1 Study Guide
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2000210501	Respond to High Drywell Temperature

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
216000	K5.13	Knowledge of the operational implications of the following concepts as they apply to NUCLEAR BOILER INSTRUMENTATION: (CFR 41.5 / 45.3): Reference leg flashing: Design-Specific	3.5	3.6

Static Simulator Exams: None
Last Revised: 12/22/2004 12:48:30 PM by Hallonquist, Nora E.

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Question No. 58 Exam Bank Question No.: 5639 Revision: 4 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-205 Objective: CRO 2
Question Level: Comprehension

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Select the correct answer:

A small break LOCA has occurred resulting in the following parameters:

- DW Pressure - 8 psig
- RPV Water Level - 135"
- RPV Pressure - 860 psig

RHR Pump "A" was placed in torus cooling due to a high torus temperature. Subsequently, a large break LOCA results in an RPV water level of -200".

Without operator action, what is the expected RHR system response, and the impact on vessel injection flow?

	Answer/Distractor	Justification
a.	RHR-65A remains closed, and the torus cooling lineup isolates. "A" RHR injection flow of approximately 13,000 gpm is expected.	Incorrect - Only 1 RHR pump is operating instead of 2 pumps.
b.	RHR-65A opens, but the torus cooling lineup is unaffected. "A" RHR injection flow of approximately 6,500 gpm is expected.	Incorrect - Torus cooling valves isolate by interlock (2/3 C.H.) to divert flow to vessel. RHR-65A remains closed. Only 1 RHR pump is operating instead of 2 pumps.
c.	RHR-65A remains closed, and the torus cooling lineup isolates. "A" RHR injection flow of approximately 6,500 gpm is expected.	Correct Response - Torus cooling valves isolate by interlock (2/3 C.H.) to divert flow to vessel. Only 1 RHR pump is operating instead of 2 pumps.
d.	RHR-65A opens, but the torus cooling lineup is unaffected. "A" RHR injection flow of approximately 13,000 gpm is expected.	Incorrect - Torus cooling valves isolate by interlock (2/3 C.H.) to divert flow to vessel. RHR-65A remains closed. Only 1 RHR pump is operating instead of 2 pumps.

References: OP 2124
Source: VY 2002 NRC Exam
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2057190101	Startup the RHR System in the Torus Cooling Mode

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
219000	K4.03	Knowledge of RHR/LPCI: TORUS/SUPPRESSION POOL COOLING MODE design feature(s) and/or interlocks which provide for the following: (CFR 41.7): Unintentional reduction in vessel injection flow during accident conditions: Plant-Specific	3.8	3.8

Static Simulator Exams: None
Last Revised: 12/22/2004 3:42:20 PM by Murphy, Kevin

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Question No. 59 Exam Bank Question No.: 6002 Revision: 1 Point Value: 1
SRO Only: No Instructor Guide: LOT-01-626 Objective: CRO 3, 4
Question Level: Fundamental Knowledge/Memory

****

Select the correct answer:

The following conditions exist post LOCA:

- DW pressure 35 psig rising slowly

What actions (if any) are required to reduce DW pressure using the Torus Hardened Vent Flowpath to the Stack and predict the DW pressure response?

	Answer/Distractor	Justification
a.	Open TVS-86, Torus Vent Valve. DW pressure will immediately start to lower.	Incorrect - DW pressure will not lower until rupture disc ruptures.
b.	TVS-86, Torus Vent Valve, will automatically open at ~~59~~ psig. DW pressure will lower.	Incorrect - No auto features with TVS-86, normally closed. At 59 psig, rupture disc will not be subjected to the pressure with TVS-86 closed.
c.	Open TVS-86, Torus Vent Valve. DW pressure will continue to rise ~~to 59 psig~~ until the rupture disc ruptures, causing DW pressure to lower.	Correct Response - Rupture disc is designed to rupture between 56-62 psig, TVS-86 is normally closed and must be opened.
d.	TVS-86, Torus Vent Valve, will automatically open at 2.5 psig. DW pressure will continue to rise ~~to 59 psig~~ until the rupture disc ruptures, causing DW pressure to lower.	Incorrect - No auto features with TVS-86, normally closed. At 59 psig, rupture disc will not be subjected to the pressure with TVS-86 closed.

References: OP 2115 Discussion Section Page 6; OE 3107 Appendix HH
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2007800501	Perform Primary Containment Venting per APPENDIX HH

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
223001	A1.02	Ability to predict and/or monitor changes in parameters associated with operating the PRIMARY CONTAINMENT SYSTEM AND AUXILIARIES controls including: (CFR 41.5 / 45.5): Drywell pressure	3.6	3.7

Static Simulator Exams: None
Last Revised: 12/22/2004 1:16:28 PM by Hallonquist, Nora E.

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Question No. 60 Exam Bank Question No.: 3588 Revision: 1 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-233 Objective: CRO 3
Question Level: Fundamental Knowledge/Memory

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Select the correct answer:

The plant is in normal full power operations with Fuel Pool Cooling Pump "A" in service.

A leak develops upstream of inlet isolation valve, FPC-220 and FPC-221.

As fuel pool level starts to drop, what is the expected system response?

	Answer/Distractor	Justification
a.	FPC-220/221 remain open and FPC Pump "A" continues to run.	Incorrect - Valves isolate, pump trips on low suction
b.	FPC-220/221 remain open and FPC Pump "A" trips.	Incorrect - Not a pump trip directly, valves isolate
c.	FPC-220/221 close and FPC Pump "A" continues to run.	Incorrect - pump trips on low suction pressure
d.	FPC-220/221 close and FPC Pump "A" trips.	Correct Response- Valves close on low level signal, Pumps will trip on low suction pressure

References: OP 2184
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2337140401	Respond to Fuel Pool Cooling System Alarms

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
233000	A3.02	Ability to monitor automatic operations of the FUEL POOL COOLING AND CLEAN-UP including: (CFR 41.7 / 45.7): Pump trip(s)	2.6	2.6

Static Simulator Exams: None
Last Revised: 12/22/2004 12:49:50 PM by Hallonquist, Nora E.

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Question No. 61 Exam Bank Question No.: 5957 Revision: 3 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-234 Objective: CRO 1
Question Level: Comprehension

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Select the correct answer:

During refueling operations, the following conditions exist:

- Mode Switch in REFUEL
- Refuel platform over the core
- Control Rod 26-27 at position 04
- Grapple up and open

The Reactor Manual Control System will initiate a rod block if:

	Answer/Distractor	Justification
a.	conditions already exist for a rod block.	Incorrect - There is no load on a hoist. This signal is the missing input, no rod block.
b.	grapple normal up indication is lost.	Incorrect - Not an input to refuel interlock
c.	hoist load cell fails high.	Correct Response - A load cell failure will result in indications of a fuel bundle grappled. This will satisfy refuel interlock over reactor with load in REFUEL..
d.	slack cable indication fails on.	Incorrect - Not an input to refuel interlock

References: OP 1100 Discussion
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2347110201	Perform Functional Test of Refueling Interlocks

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
234000	K3.01	Knowledge of the effect that a loss or malfunction of the FUEL HANDLING will have on following: (CFR 41.7 / 45.4): Reactor manual control system: Plant-Specific	2.9	3.3

Static Simulator Exams: None
Last Revised: 12/22/2004 1:16:14 PM by Hallonquist, Nora E.

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Question No. 62 Exam Bank Question No.: 5990 Revision: 4 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-239 Objective: CRO 3
Question Level: Fundamental Knowledge/Memory

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Select the correct answer:

The reactor scrams on high drywell pressure, and the following indications exist:

- RX SAFETY VLV OPEN (3-B-1) has alarmed
- The acoustic monitor indicates SV-70C is open
- Reactor pressure is 900 psig and lowering

Which of the following describes the current condition of the plant?

	Answer/Distractor	Justification
a.	SV-70C should be open. Steam is passing from the C main steam line directly to the drywell.	Incorrect - SV-70C relieves directly to the drywell, Even if SV-70C had lifted normally, it should have reseated at 1180 psig.
b.	SV-70C should have closed. Steam is passing from the D main steam line directly to the torus.	Incorrect - SV-70C is located on the C MSL.
c.	SV-70C should be open. Steam is passing from the D main steam line directly to the torus.	Incorrect - SV-70C is located on the C MSL. Even if SV-70C had lifted normally, it should have reseat at 1180 psig.
d.	SV-70C should have closed. Steam is passing from the C main steam line directly to the drywell.	Correct Response - SV-70C is located on the C MSL and relieves directly to the drywell.

References: ARS 3-B-1
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2000270501	Respond to a Loss of Feedwater

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO

239001	K6.04	Knowledge of the effect that a loss or malfunction of the following will have on the MAIN AND REHEAT STEAM SYSTEM: (CFR 41.7 / 45.7): Relief valve operability: Plant-Specific	3.4	3.5

Static Simulator Exams: None
Last Revised: 12/22/2004 1:08:44 PM by Hallonquist, Nora E.

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Question No. 63 Exam Bank Question No.: 3839 Revision: 3 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-307 Objective: CRO A2, A5
Question Level: Comprehension

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Select the correct answer:

A reactor shutdown is in progress with reactor power at 43% RTP. The following annunciator alarms:

STOP/CTRL VLV FAST CLOSURE BYP (5-K-8)

What is the effect on RPS if a turbine trip were to occur, why?

	Answer/Distractor	Justification
a.	Reactor scram will occur because the margins to the fuel thermal-hydraulic limits are challenged.	Incorrect - Scram will not occur, reason is correct
b.	Reactor scram will occur because the margins to the reactor primary coolant boundary pressure limits are challenged.	Incorrect - Scram will not occur, reason is correct
c.	Reactor scram will NOT occur, but an immediate scram is required due to reactor pressurization transient limits are challenged.	Correct Response - T.S. bases discusses the pressurization transient above 30% RTP
d.	Reactor scram will NOT occur, and an immediate scram is NOT required because reactor pressurization transient limits are NOT challenged.	Incorrect - Limits are challenged above 30% RTP

References: T.S. 3.1 Bases; ARS 5-K-8
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2450120101	Shutdown the Turbine Generator

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
245000	K3.07	Knowledge of the effect that a loss or malfunction of the	3.6	3.7

		MAIN TURBINE GENERATOR AND AUXILIARY SYSTEMS will have on following: (CFR 41.7 / 45.4): Reactor protection system		

Static Simulator Exams: None
Last Revised: 12/22/2004 1:16:02 PM by Hallonquist, Nora E.

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Question No. 64 Exam Bank Question No.: 5958 Revision: 3 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-286 Objective: CRO 2f
Question Level: Fundamental Knowledge/Memory

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Select the correct answer:

Concerning the Recirc MG Set fire protection system:

Which of the following describes the required combination of high temperature and ionization signals for both the alarm and the actuation to occur?

	Answer/Distractor	Justification
a.	Both a high temperature and an ionization signal are required for the alarm. After 22 seconds, both are also required for the system to actuate.	Incorrect - Either to alarm
b.	Both a high temperature and an ionization signal are required for the alarm. After 22 seconds, either one is adequate for the system to actuate.	Incorrect - Either to alarm
c.	Either a high temperature or an ionization signal is adequate to alarm. After 22 seconds, either one is also adequate for the system to actuate.	Incorrect - Both to actuate
d.	Either a high temperature or an ionization signal is adequate to alarm. After 22 seconds, both are required for the system to actuate.	Correct Response - Either to alarm, both to actuate

References: OP 2186 Discussion Section
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2867290401	Respond to Pyrotronics Panel Alarms

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
286000	K4.06	Knowledge of FIRE PROTECTION SYSTEM design	3.4	3.4

		feature(s) and/or interlocks which provide for the following: (CFR 41.7) (CFR 41.5 / 45.3) (CFR 41.7 / 45.7) (CFR 41.5 / 45.5) (CFR 41.5 / 45.6) (CFR 41.7 / 45.7) (CFR 41.7 / 45.5 to 45.8): Fire suppression capability that does not rely on the displacement of oxygen (Halon): Plant-Specific		

Static Simulator Exams: None
Last Revised: 12/22/2004 1:15:48 PM by Hallonquist, Nora E.

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Question No. 65 Exam Bank Question No.: 5993 Revision: 2 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-205 Objective: CRO 5
Question Level: Fundamental Knowledge/Memory

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Select the correct answer:

With the vessel head installed, and a loss of shutdown cooling, what is the MINIMUM level at which natural circulation is established?

	Answer/Distractor	Justification
a.	RPV water level just above the bottom of the steam separators	Correct Response - RPV water level is raised above 185", which is above the bottom of the predryers on the steam separator, creating a natural circulation path between the inside and outside of the shroud.
b.	RPV water level at the top of the steam separators	Incorrect - Excessively high water level
c.	RPV water level at the middle of the steam dryer skirt	Incorrect - Excessively high water level
d.	RPV water level at the top of the steam dryer	Incorrect - Excessively high water level

References: ON 3156
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2057090101	Operate the RHR System in the Shutdown Cooling Mode

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
290002	K4.05	Knowledge of REACTOR VESSEL INTERNALS design feature(s) and/or interlocks which provide for the following: (CFR 41.7): Natural circulation	3.3	3.5

Static Simulator Exams: None
Last Revised: 12/22/2004 12:51:36 PM by Hallonquist, Nora E.

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Question No. 66 Exam Bank Question No.: 5996 Revision: 1 Point Value: 1
SRO Only: No Instructor Guide: LOT-03-400 Objective: CRO 1
Question Level: Fundamental Knowledge/Memory

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Select the correct answer:

A tagging evolution in the 345 KV switchyard needs to be completed.

How should this activity be coordinated?

	Answer/Distractor	Justification
a.	Dispatch 1 operator at a time to hang tags. Peer checking is not required.	Incorrect - Will not meet DP 0166 standard
b.	Dispatch 2 operators to hang tags. Peer checking is required.	Correct Response - DP 0166 requires a peer check for 345 KV tagging evolution, page 35
c.	Dispatch 1 operator at a time to hang tags to ensure independent verification is maintained.	Incorrect - Will not meet DP 0166 standard
d.	Dispatch 2 operators to hang tags ensuring separation is maintained for independent verification purposes.	Incorrect - Will not meet DP 0166 standard

References: DP 0166, Page 35, I.2.b.14
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
3410380302/03	Interpret and Ensure Compliance with Plant Administrative Procedures During Normal and off Normal Plant Operations

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
0	2.1.08	Ability to coordinate personnel activities outside the control room (CFR 45.5, 45.12, 45.13)	3.8	3.6

Static Simulator Exams: None
Last Revised: 12/22/2004 12:51:54 PM by Hallonquist, Nora E.

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Question No. 67 Exam Bank Question No.: 3596 Revision: 3 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-283 Objective: CRO 7
Question Level: Comprehension

****

Select the correct answer:

Following a large break LOCA, RPV water level recovers to 2/3 core height.

The following information regarding Core Spray status is available on ERFIS ECCS Status screen:

Core Spray A Flow 3725 gpm, displayed in purple
Core Spray B Flow 4100 gpm, displayed in green

From this it can be determined that:

	Answer/Distractor	Justification
a.	both Core Spray pumps are providing adequate core cooling.	Incorrect - A flow is unreliable, can not be verified > 3250 gpm
b.	neither Core Spray pump is providing adequate core cooling.	Incorrect - B flow > 3250 gpm reliable
c.	the A Core Spray pump is providing adequate core cooling, B Core Spray flow is questionable.	Incorrect - A flow is unreliable
d.	the B Core Spray pump is providing adequate core cooling, A Core Spray flow is questionable.	Correct Response - B flow > 3250 gpm reliable

References: EOP-1 Study Guide
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2837030101	Operate ERFIS

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
0	2.1.19	Ability to use plant computer to obtain and evaluate parametric information on system or component status	3.0	3.0

		(CFR 45.12)		

Static Simulator Exams: None
Last Revised: 12/22/2004 12:52:11 PM by Hallonquist, Nora E.

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Question No. 68 Exam Bank Question No.: 5959 Revision: 2 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-206 Objective: CRO 7
Question Level: Comprehension

****

Select the correct answer:

During the HPCI quarterly surveillance, the following conditions exist:

- Steam Supply pressure - 1000 psig
- Discharge Pressure - 1050 psig
- Turbine Speed - 1900 rpm
- Suction Pressure - 10 psig
- System Flow - 2400 gpm

Prolonged HPCI operation with these conditions will:

	Answer/Distractor	Justification
a.	create the potential for exhaust line oscillations.	Correct Response - Precaution 13 lists as reason to setpoint for 2200 limit
b.	violate min flow requirements.	Incorrect - Pump limit, not turbine
c.	exceed suction vortex limits.	Incorrect - Pump limit, not turbine
d.	challenge NPSH limits.	Incorrect - Pump limit, not turbine

References: OP 2120 Precaution 13
Source: Limerick 1 2002 NRC Exam
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2060050101	Manually Initiate HPCI

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
0	2.1.32	Ability to explain and apply system limits and precautions (CFR 41.10, 43.2, 45.12)	3.4	3.8

Static Simulator Exams: None
Last Revised: 12/22/2004 1:15:32 PM by Hallonquist, Nora E.

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Question No. 69 Exam Bank Question No.: 5961 Revision: 4 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-413 Objective: CRO 9
Question Level: Fundamental Knowledge/Memory

****

Select the correct answer:

Changes to a Tagging Order boundary are required and the Tagout/Work Order Holder is off-site and cannot be reached.

Which one of the following is correct regarding the requirements for the changes to be accomplished?

	Answer/Distractor	Justification
a.	The Tagout Holder Supervisor alone may authorize the changes.	Incorrect - Tagout Holder Supervisor alone is insufficient . SM also required.
b.	The Shift Manager alone may authorize the changes.	Incorrect - SM alone is insufficient. Tagout Holder Supervisor also required.
c.	The Tagout Holder Supervisor and the Shift Manager must double authorize the changes.	Correct Response - EN-OP-102 Section 5.14, Alternate Release Authorization, requires both the Tagout Holder Supervisor and the Shift Manager.
d.	The Tagout Holder Supervisor and the Tagout Holder Manager must double authorize the changes.	Incorrect - Tagout Holder Manager is not required or a substitute for the SM.

References: EN-OP-102 Section 5.14
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
3437100302/0	Clear a Tagging Order

3

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
0	2.2.13	Knowledge of tagging and clearance procedures (CFR 41.10, 45.13)	3.6	3.8

Static Simulator Exams: None

Last Revised: 12/22/2004 12:54:06 PM by Hallonquist, Nora E.

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Question No. 70 Exam Bank Question No.: 5962 Revision: 1 Point Value: 1
SRO Only: No Instructor Guide: LOT-01-215 Objective: CRO 5
Question Level: Fundamental Knowledge/Memory

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Select the correct answer:

Which one of the following is a responsibility of the Reactor Operator during core alterations?

	Answer/Distractor	Justification
a.	Verify completion of daily refueling checks	Incorrect - Responsibility of refuel supervisor
b.	Observe SRMs for rising counts	Correct Response - RO responsibility as specified in OP 1101 A.3
c.	Perform verification of in-core coordinates	Incorrect - Responsibility of refuel supervisor
d.	Observe refuel floor radiation for rising radiation	Incorrect - Responsibility not specified to any individual

References: OP 1101 Section A.3 CRO Responsibilities
Source: Clinton 2002 NRC Exam
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2157160101	Monitor and Log SRM Meters During Refuel

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
0	2.2.30	Knowledge of RO duties in the control room during fuel handling such as alarms from fuel handling area, communication with fuel storage facility, systems operated from the control room in support of fueling operations, and supporting instrumentation (CFR 45.12)	3.5	3.3

Static Simulator Exams: None
Last Revised: 12/22/2004 1:13:22 PM by Hallonquist, Nora E.

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Question No. 71 Exam Bank Question No.: 5965 Revision: 4 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-603 Objective: CRO 3
Question Level: Fundamental Knowledge/Memory

****

Select the correct answer:

Accident conditions have resulted in the following:

- Increasing Turbine Building ARM readings on CRP 9-11
- Turbine Building air samples show excessive airborne contamination levels of 1.0 mr/hr

Which of the following describes the required actions?

	Answer/Distractor	Justification
a.	Allow Turbine HVAC to operate normally, and close all turbine building outside doors.	Correct Response - HVAC flowpath is from clean to contaminated and provides an elevated release. All doors leading outside or to adjacent structures are closed to prevent the spread of airborne contamination.
b.	Shutdown Turbine HVAC, and place the CONTROL ROOM HVAC RECIRC MODE SELECT switch to EMER.	Incorrect - HVAC flowpath is from clean to contaminated and provides an elevated release
c.	Shutdown Turbine HVAC, and close all turbine building outside doors.	Incorrect - HVAC flowpath is from clean to contaminated and provides an elevated release
d.	Allow Turbine HVAC to operate normally, and allow Control Room HVAC to operate normally.	Incorrect - CONTROL ROOM HVAC RECIRC MODE SELECT switch is placed to EMER.

References: OP 2192; ON 3153
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2727150401	Respond to ARM Alarms

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO

0	2.3.11	Ability to control radiation releases (CFR 45.9, 45.10)	2.7	3.2

Static Simulator Exams: None
Last Revised: 12/22/2004 12:55:41 PM by Hallonquist, Nora E.

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Question No. 72 Exam Bank Question No.: 5966 Revision: 2 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-404 Objective: CRO 3
Question Level: Fundamental Knowledge/Memory

****

Select the correct answer:

Plant conditions are as follows:

- A pump room has general area dose rates ranging from 1 mrem/hr to 3 mrem/hr
- Contamination levels are 2000 dpm/100 cm2

Which one of the following lists the area posting for the pump room per AP 0503, Establishing and Posting Restricted Areas?

	Answer/Distractor	Justification
a.	High Radiation Area and Contamination Area	Incorrect - > 2mrem/hr makes it an RCA
b.	Radiation Area only	Incorrect - > 2mrem/hr makes it an RCA, < 5 mrem/hr not a radiation area, > 1000 dpm/100cm2 makes it a contamination area
c.	Radiation Control Area and Contamination Area	Correct Response - > 2mrem/hr makes it an RCA, < 5 mrem/hr not a radiation area, > 1000 dpm/100cm2 makes it a contamination area
d.	Radiation Control Area only	Incorrect - < 5 mrem/hr not a radiation area, > 1000 dpm/100cm2 makes it a contamination area

References: AP 0503 Definition Section 2.8, 2.9, 2.3
Source: Limerick1 2002 NRC Exam
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
2990100301	Apply Radiation and Contamination Safety Procedures

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
0	2.3.01	Knowledge of 10 CFR 20 and related facility radiation	2.6	3.0

		control requirements (CFR 41.12, 43.4, 45.9, 45.10)		

Static Simulator Exams: None
Last Revised: 12/22/2004 1:24:01 PM by Hallonquist, Nora E.

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Question No. 73 Exam Bank Question No.: 3668 Revision: 1 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-610 Objective: CRO 1
Question Level: Fundamental Knowledge/Memory

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Select the correct answer:

The plant is operating at power when a spurious Group I isolation occurs.

All control rods remain at their original positions.
APRMs indicate approximately 96% power.
All 4 SRVs have opened automatically and RPV pressure is >1200 psig.
Core flow is 45 mlb/hr.

The CRO attempts a manual scram which fails to insert control rods and scram air header pressure remains at 75 psig.

Without direction the Control Board operators must immediately:

	Answer/Distractor	Justification
a.	initiate ARI/RPT and inhibit HPCI.	Incorrect - Inhibiting HPCI is directed by CRS
b.	initiate ARI/RPT and lower RPV water level by depressing PB1 on master FW controller.	Correct Response - DP 0166 requires initiation of ARI/RPT without direction if reactor power is > 2% and scram signal exists (DP 0166 A.2.d.1.a). Additionally, PB1 is depressed reducing setpoint to 133 if a scram signal exists. (DP 0166 B.2)
c.	inhibit ADS and inhibit HPCI.	Incorrect - Inhibiting ADS is directed by CRS. Also, initiating ARI/RPT must be done as soon as possible to trip the Recirc Pump Field Breakers to lower Reactor Power.
d.	inhibit ADS and lower RPV water level by depressing PB1 on master FW controller.	Incorrect - Inhibiting ADS is directed by CRS. Also, initiating ARI/RPT must be done as soon as possible to trip the Recirc Pump Field Breakers to lower Reactor Power.

References: OP 2172; DP 0166
Source: VY Exam Bank
Required Student References: None

SRO Reference: None

Task Associations

Task Number	Task Title
2000200501	Respond to ATWS Event(s)

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
0	2.4.01	Knowledge of EOP entry conditions and immediate action steps (CFR 41.10, 43.5, 45.13)	4.3	4.6

Static Simulator Exams: None
Last Revised: 12/22/2004 1:13:08 PM by Hallonquist, Nora E.

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Question No. 74 Exam Bank Question No.: 5968 Revision: 2 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-622 Objective: CRO 1a
Question Level: Fundamental Knowledge/Memory

****

Select the correct answer:

Given the following conditions:

- A LOCA has occurred
- Only one RHR pump is injecting at 5500 gpm

Which of the following is the MINIMUM RPV level where adequate core cooling can be assured?

	Answer/Distractor	Justification
a.	+ 15 inches	Incorrect - Not minimum level
b.	- 15 inches	Correct Response - Min steam cooling (-19")
c.	- 30 inches	Incorrect - < -19"
d.	- 45 inches	Incorrect - < -19"

References: EOP Study Guide (Definitions)
Source: VY Exam Bank
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
3440460302/03	Direct Actions to Ensure that Core Cooling and Containment Maintained During an Off Normal Event

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
0	2.4.17	Knowledge of EOP terms and definitions (CFR 41.10, 45.13)	3.1	3.8

Static Simulator Exams: None
Last Revised: 12/22/2004 1:12:50 PM by Hallonquist, Nora E.

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Question No. 75 Exam Bank Question No.: 5969 Revision: 3 Point Value: 1
SRO Only: No Instructor Guide: LOT-00-900 Objective: CRO 3
Question Level: Fundamental Knowledge/Memory

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Select the correct answer:

A Site Area Emergency has been declared.

Two hours later, which one of the following coordinates overall response?

	Answer/Distractor	Justification
a.	Shift Manager as the Plant Emergency Director (PED)	Incorrect - In a Site Area Emergency, the plant's emergency response facilities are manned within an hour. The SRM assumes overall responsibility when the EOF is activated.
b.	Duty Call Officer (DCO) as the Plant Emergency Director (PED)	Incorrect - In a Site Area Emergency, the plant's emergency response facilities are manned within an hour. The SRM assumes overall responsibility when the EOF is activated.
c.	Technical Support Center (TSC) Coordinator	Incorrect - In a Site Area Emergency, the plant's emergency response facilities are manned within an hour. The SRM assumes overall responsibility when the EOF is activated.
d.	Site Recovery Manager (SRM)	Correct Response - In a Site Area Emergency, the plant's emergency response facilities are manned within an hour. The SRM assumes overall responsibility when the EOF is activated.

References: VY E-Plan
Source: New
Required Student References: None
SRO Reference: None

Task Associations

Task Number	Task Title
3447080302/0	Assume Duties of Plant Emergency Director

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
0	2.4.29	Knowledge of the emergency plan (CFR 43.5, 45.11)	2.6	4.0

Static Simulator Exams: None
Last Revised: 12/22/2004 1:12:29 PM by Hallonquist, Nora E.

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Question No. 76 Exam Bank Question No.: 5984 Revision: 2 Point Value: 1
SRO Only: Yes Instructor Guide: LOT-00-276 Objective: SRO 3, 4
Question Level: Comprehension

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Select the correct answer:

During operation at 100% power the following conditions exist:

- SERV WTR STRN A ΔP HI (6-A-6)
- SERV WTR STRN B ΔP HI (6-A-7)
- SERV WTR HDR PRESS LO (6-A-5)
- Service water pressure is 70 psig
- AO reports A/B service water strainer D/P are 12 and 15 psid respectively

Based on the existing conditions, determine the required action.

	Answer/Distractor	Justification
a.	Bypass both strainers. NO Tech Spec declaration is required.	Incorrect - No admin requirement to declare inoperable
b.	Declare both trains of RHRSW inoperable. Enter 15 day LCO.	Incorrect - No admin requirement to declare inoperable
c.	Declare both D/Gs inoperable. Enter 7 day LCO.	Incorrect - No admin requirement to declare inoperable
d.	Declare Service Water inoperable. Enter 24 hour COLD SHUTDOWN LCO.	Correct Response - D/P > 10 psid on both strainers requires SW to be declared inoperable.

References: ON 3148, Step 5.b
Source: New
Required Student References: None
SRO Reference: 10CFR55.43.b.5; 10CFR55.43.b.2

Task Associations

Task Number	Task Title
2000300501	Respond to a Loss of Service Water

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295018	AA2.03	Ability to determine and/or interpret the following as they apply to PARTIAL OR COMPLETE LOSS OF COMPONENT COOLING WATER:(CFR 41.10, 43.5,	3.2	3.5

		45.13): Cause for partial or complete loss		

Static Simulator Exams: None
Last Revised: 12/22/2004 12:18:42 PM by Hallonquist, Nora E.

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Question No. 77 Exam Bank Question No.: 5881 Revision: 6 Point Value: 1
SRO Only: Yes Instructor Guide: LOT-00-601 Objective: SRO 7
Question Level: Comprehension

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Select the correct answer:

At approximately 20% power during startup and power ascension, Control Room annunciators alarmed, including the following:

6-D-1 INST AIR HDR PRESSURE LO
5-E-2 FW VLV LOCKUP SIGNAL/AIR FAIL

The power ascension was immediately halted, and the following conditions have been reported:

- Reactor level is slowly lowering
- Scram Air Header pressure is 70 psig and stable

Which of the following describes the required actions and the reason for those actions?

	Answer/Distractor	Justification
a.	Override SA-PCV-1 closed after making an announcement over the Gai-tronics page. Service air supplies any respirators in use.	Incorrect - SA-PCV-1 begins to automatically close at 85 psig and should be fully closed at 80 psig.
b.	Scram the reactor and enter OT 3100. Control rods are expected to drift at this pressure.	Incorrect - If the Scram Air Header pressure drops to less than 55 psig, then scram the reactor and enter OT 3100.
c.	Scram the reactor and enter OT 3100. The in-service FWRV has locked up.	Correct Response - If level is unexpectedly decreasing and the FRVs are locked up then insert a scram.
d.	Place the aux FWRV in service and restore reactor level. The in-service FWRV has locked up.	Incorrect - The aux FWRV will fail closed on loss of air; additionally, it is only 10% capacity, and there is no procedural direction for this action.

References: ON 3146
Source: VY Exam Bank
Required Student References: None
SRO Reference: 10CFR55.43.b.5

Task Associations

Task Number	Task Title
2000130501	Respond to a Loss of Instrument Air Pressure
2000330501	Respond to a Reactor SCRAM

Knowledge and Abilities Associations

System	K/A No	Statement	RO	SRO
295019	2.1.32	Ability to explain and apply system limits and precautions (CFR 41.10, 43.2, 45.12)	3.4	3.8

Static Simulator Exams: None
Last Revised: 12/22/2004 1:01:58 PM by Hallonquist, Nora E.

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Question No. 78 Exam Bank Question No.: 5932 Revision: 3 Point Value: 1
SRO Only: Yes Instructor Guide: LOT-00-601 Objective: SRO 8
Question Level: Comprehension

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Select the correct answer:

With the Rx Shutdown and a cooldown in progress for a Refueling Outage, shutdown cooling was established on the "A" Loop of RHR. Shortly after shutdown cooling was established, Rx Pressure spiked at 170 psig and returned to 80 psig.

For these conditions, state required action(s):

	Answer/Distractor	Justification
a.	"B" Loop of RHR should immediately be placed in SDC.	Incorrect - If the "A" loop fails then the "A" Loop would be selected next
b.	Rx Water Level should be raised to 180" to establish natural circulation.	Incorrect - Need level raised to 185"
c.	CRD and RWCU should be used to establish a feed and bleed.	Incorrect - A feed and bleed is used after failure of A & B RHR
d.	Rx Water Level should be raised to > 185" & Shutdown Cooling restored on the "A" RHR Loop.	Correct Response - This is correct for the head on. Rx Vessel Head is in place during cooldown.

References: ON 3156 Part B
Source: New
Required Student References: None
SRO Reference: 10CFR55.43.b.5

Task Associations

Task Number	Task Title
2000150501	Respond to a Loss of Shutdown Cooling

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295021	AA2.06	Ability to determine and/or interpret the following as they apply to LOSS OF SHUTDOWN COOLING:(CFR 41.10, 43.5, 45.13): Reactor pressure	3.2	3.3

Static Simulator Exams: None
Last Revised: 12/22/2004 1:22:45 PM by Hallonquist, Nora E.

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Question No. 79 Exam Bank Question No.: 5992 Revision: 5 Point Value: 1
SRO Only: Yes Instructor Guide: LOT-00-604 Objective: SRO 6
Question Level: Fundamental Knowledge/Memory

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Select the correct answer:

During a Rx Startup at ≈ 60% power, a spurious MSIV closure (MSIV 86A) causes a high pressure condition.

The current plant conditions are:

- Rx pressure 990 psig
- Steam flow 4.7 x 10^6 lbs/hr

At this point:

	Answer/Distractor	Justification
a.	Core Thermal Limits evaluations are valid and power may be held steady for an indefinite period of time.	Correct Response - The old standard called for a power reduction or MSIVs must be reopened within 2 hours. A recent analysis at the end of 2004 allows us to maintain power.
b.	Core Thermal Limits evaluations are valid and MSIV 86A must be reopened within 2 hours.	Incorrect - Thermal Limits are valid indefinitely if < 4.8 x 10E6 lbs/hr
c.	Core Thermal Limits are suspect and power must be reduced to < 25% before MSIV 86A can be reopened.	Incorrect - MSIVs may be reopened at current power level
d.	Core Thermal Limits are suspect & MSIV 86A should be reopened within 2 hours or power shall be reduced to < 25% in 8 hours.	Incorrect - An old standard that no longer applies

References: OT 3115, Note after Step 4a
Source: New
Required Student References: None
SRO Reference: 10CFR55.43.b.5

Task Associations

Task Number	Task Title
2000180501	Respond to High Reactor Pressure

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295025	EA2.01	Ability to determine and/or interpret the following as they apply to HIGH REACTOR PRESSURE:(CFR 41.10, 43.5, 45.13).: Reactor pressure	4.3	4.3

Static Simulator Exams: None
Last Revised: 12/22/2004 1:23:11 PM by Hallonquist, Nora E.

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Question No. 80 Exam Bank Question No.: 5690 Revision: 2 Point Value: 1
SRO Only: Yes Instructor Guide: LOT-00-402 Objective: SRO 2, 3
Question Level: Fundamental Knowledge/Memory

****

Select the correct answer:

Due to a temperature switch that has failed high, the Torus Trouble annunciator (5-F-5) is in constant alarm and has been disabled. It is anticipated the annunciator will remain disabled for 15 months until the next refueling outage.

This will require a _____ to be written and also require the first PORC review after _____ months.

	Answer/Distractor	Justification
a.	Temporary Modification (TM); six	Correct Response - OP 3140/AP 0020
b.	Minor Modification (MM); six	Incorrect - TM is correct per AP 0020
c.	Temporary Modification (TM); twelve	Incorrect - TM is correct but review must be complete within 6 months
d.	Minor Modification (MM); twelve	Incorrect - Minor Mod is not appropriate per definition of Temp Mod in AP 0020

References: AP 0020; OP 3140 Discussion Section
Source: 2003 VY NRC Exam
Required Student References: None
SRO Reference: ~~None~~ 10CFR55.43.b.3

Task Associations

Task Number	Task Title
3410110302/0	Approve Temporary Modifications

3

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295026	2.4.33	Knowledge of the process used to track inoperable alarms (CFR 41.10, 43.5, 45.13)	2.4	2.8

Static Simulator Exams: None
Last Revised: 12/22/2004 1:23:25 PM by Hallonquist, Nora E.

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Question No. 81 Exam Bank Question No.: 5935 Revision: 4 Point Value: 1
SRO Only: Yes Instructor Guide: LOT-00-900 Objective: SRO 4, 5
Question Level: Comprehension

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Select the correct answer:

A plant transient has occurred resulting in Rx Water Level < -48" for a sustained period of time. Select the answer which correctly describes the requirements and methods for notifying on-shift and off-shift plant personnel.

	Answer/Distractor	Justification
a.	All on-shift and off-shift personnel will receive initial notification of the event via the Emergency Plan pagers.	Incorrect - On-shift personnel will receive initial notification via plant pager system.
b.	All on-shift personnel will be notified via plant Gaitronics, no Emergency Plan pager activation for off-shift personnel is necessary.	Incorrect - Pager activation is required for declaration fo SAE.
c.	All on-shift personnel are notified via plant paging system, only the DCO is notified via Emergency Plan pagers.	Incorrect - Full E-Plan activation will occur for SAE.
d.	All on-shift personnel are notified via Gaitronics announcement, all Emergency Plan responders are notified via Emergency Plan pagers.	Correct Response - OP 3504 & OP 3540 outline the initial plant page for on-shift personnel and then directs Security to activate E-Plan pagers.

References: OP 3531; OP 3540; OP 3547; EAL Bases
Source: New
Required Student References: AP 3125
SRO Reference: 10CFR55.43.b.5

Task Associations

Task Number	Task Title
3447080302/0	Assume Duties of Plant Emergency Director

3

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295031	2.1.14	Knowledge of system status criteria which require the notification of plant personnel (CFR 43.5, 45.12)	2.5	3.3

Static Simulator Exams: None
Last Revised: 12/22/2004 1:21:47 PM by Hallonquist, Nora E.

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Question No. 82 Exam Bank Question No.: 5998 Revision: 3 Point Value: 1
SRO Only: Yes Instructor Guide: LOT-00-602 Objective: SRO 10
Question Level: Comprehension

****

Select the correct answer:

During 100% power operations a spill of flamable liquids in the RB causes a severe fire in the Southeast Corner room.

At 1200, Fire Brigade commander responds to the scene and reports heavy fire and smoke throughout RB 213 and 232 Southeast.

At 1215, Fire Brigade commander reports fire crews are entering the area to attempt fire suppression.

Based on the above scenario, the required actions are:

	Answer/Distractor	Justification
a.	Commence normal Reactor Shutdown and commence a cooldown at 80-100°F/hr	Incorrect - > 10 min scram required
b.	Insert a Rx Scram and RPV-ED	Incorrect - RPV-ED criteria not reached
c.	Reduce power to < 25% and transfer station load to startup transformer	Incorrect - > 10 min scram required
d.	Insert a Reactor Scram and commence a cooldown at 80-100°F/hr	Correct Response - > 10 min

References: OP 3020
Source: New
Required Student References: OP 3020 Flow Chart
SRO Reference: 10CFR55.43.b.5

Task Associations

Task Number	Task Title
3440140302/0	Coordinate Response to a Fire Emergency

3

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
600000	AA2.13	Ability to determine and/or interpret the following as they apply to PLANT FIRE ON SITE:: Need for emergency plant shutdown	3.2	3.8

Static Simulator Exams: None
Last Revised: 12/22/2004 2:19:49 PM by Hallonquist, Nora E.

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Question No. 83 Exam Bank Question No.: 5937 Revision: 4 Point Value: 1
SRO Only: Yes Instructor Guide: LOT-00-402 Objective: SRO 1
Question Level: Fundamental Knowledge/Memory

****

Select the correct answer:

During startup from a refueling outage, the plant experiences a LOCA and a loss of normal power resulting in the following conditions:

- Drywell pressure is 4 psig and steady
- Reactor pressure is being maintained between 800 and 1000 psig using SRVs
- The lowest reactor level obtained was 95 inches
- RCIC and HPCI did not start automatically
- RCIC was manually started for level control and level has been stabilized

Concerning notification to the NRC Operations Center, this event meets the conditions for _____ .

	Answer/Distractor	Justification
a.	a 1 hour reportable event ONLY.	Incorrect - A valid actuation of ECCS systems meets criteria for an 8 hour report [50.72(b)(3)(iv)(A)]
b.	an 8 hour reportable event ONLY.	Incorrect - Declaration of an emergency class of the Emergency Plan meets criteria for a 1 hour notification [50.72(a)(1)(I)]
c.	1 hour and 8 hour reportable events only.	Incorrect - Event should have resulted in ECCS discharge into the reactor coolant system (HPCI), meeting criteria for a 4 hour report [50.72(b)(2)(iv)(A)]
d.	1 hour, 4 hour, and 8 hour reportable event.	Correct Response - 1 hour - Emergency Plan; 4 hour - ECCS discharge; 8 hour - ECCS valid actuation

References: EAL Bases
Source: New
Required Student References: AP 0156; AP 3125
SRO Reference: 10CFR55.43.b.5

Task Associations

Task Number	Task Title
3440390302/0	Perform Required Notifications of On Site and Off Site Personnel for Off

3 Normal Events

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295010	2.4.30	Knowledge of which events related to system operations/status should be reported to outside agencies (CFR 43.5, 45.11)	2.2	3.6

Static Simulator Exams: None
Last Revised: 12/22/2004 1:23:37 PM by Hallonquist, Nora E.

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Question No. 84 Exam Bank Question No.: 5999 Revision: 0 Point Value: 1
SRO Only: Yes Instructor Guide: LOT-00-610 Objective: SRO 3
Question Level: Comprehension

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Select the correct answer:

During single loop operations, the Running Recirc pump controller fails high and the pump subsequently trips. The Reactor Operator reports a failure of a Manual Reactor Scram and the following plant conditions:

- All Rods not inserted
- Reactor power oscillating between 10% and 45% power
- Reactor pressure 950#, controlled by Turbine Bypass Valves
- Torus temp 85°F and steady
- Scram Air Header pressure 0#
- Reactor water level is 88" and steady

Based on the above conditions, identify the required action(s):

	Answer/Distractor	Justification
a.	Terminate and prevent RPV injection per Appendix GG and maintain until level reaches TAF	Incorrect - T & P criteria not satisfied
b.	Inject Boron into the RPV with SLC irrespective of Torus water temperature	Correct Response - Boron required for power swings > 25%
c.	Insert Control Rods with Appendix D of OE 3107	Incorrect - Scram air header @ 0 psig
d.	Terminate and prevent RPV injection per Appendix GG until power oscillations are < 20%	Incorrect - No criteria for T & P

References: EOP-2
Source: New
Required Student References: EOP-2
SRO Reference: 10CFR55.43.b.5

Task Associations

Task Number	Task Title
3101090502/0	Direct Boron Injection IAW EOP-2

3

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295014	2.1.06	Ability to supervise and assume a management role during plant transients and upset conditions (CFR 43.5, 45.12, 45.13)	2.1	4.3

Static Simulator Exams: None
Last Revised: 12/22/2004 1:20:52 PM by Hallonquist, Nora E.

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Question No. 85 Exam Bank Question No.: 5987 Revision: 2 Point Value: 1
SRO Only: Yes Instructor Guide: LOT-00-611 Objective: SRO 3
Question Level: Comprehension

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Select the correct answer:

A Torus rupture occurs resulting in the following conditions:

- 13 inches of water in the RCIC Room
- 14 inches of water in Torus Area
- 5 inches of water in HPCI Room

Determine the required action after entering EOP-4.

	Answer/Distractor	Justification
a.	Enter EOP-1, commence a normal plant cooldown	Incorrect - No scram is warranted since it is not a primary system leaking
b.	Enter EOP-1, initiate an RPV-ED	Incorrect - No scram or RPV-ED is required
c.	Enter EOP-1, initiate action to anticipate an RPV-ED	Incorrect - No scram or RPV-ED is required
d.	Begin a reactor shutdown per OP 0105	Correct Response - Per EOP-4, since it is not a primary system but there are 2 areas affected, a shutdown is required

References: EOP-4
Source: VY Exam Bank
Required Student References: EOP-4
SRO Reference: 10CFR55.43.b.5

Changed from an RO question to an SRO question

Task Associations

Task Number	Task Title
3105050502/0	Direct the Response to Unexpected area Water Level above 1 Inch

3

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
295036	EA2.02	Ability to determine and/or interpret the following as they	3.1	3.1

		apply to SECONDARY CONTAINMENT HIGH SUMP / AREA WATER LEVEL:(CFR 41.10, 43.5, 45.13).: Water level in the affected area		

Static Simulator Exams: None
Last Revised: 12/22/2004 1:19:35 PM by Hallonquist, Nora E.

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Question No. 86 Exam Bank Question No.: 2524 Revision: 4 Point Value: 1
SRO Only: Yes Instructor Guide: LOT-00-607 Objective: SRO 2, 3
Question Level: Comprehension

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The following plant conditions exist:

RPV level is -10 inches (steady)
RPV Press is 850 (steady)
Torus level is 6.8 ft (decreasing)
Rx Power is on Range 4 of IRMs
Torus Temp is 155°F
HPCI is injecting
RCIC is injecting
SLC is injecting
SLC tank level is 70%

Identify the required action(s)?

	Answer/Distractor	Justification
a.	RPVED only	Incorrect - HPCI must also be secured due to torus level < 7.0 ft
b.	Initiate a cooldown	Incorrect - Conditions are met regarding RPV-ED. CSB not injected. C/D not permitted
c.	Anticipate an RPV-ED	Incorrect - Anticipate an RPV-ED not permitted in EOP-2, only EOP-1
d.	Secure HPCI and RPVED	Correct Response - EOP-3 required steps with level < 7 ft

References: EOP-3, Steps PC/L-7,8
Source: VY Exam Bank
Required Student Reference: EOP-3
SRO Reference: 10CFR55.43.b.5

Task Associations

Task Number	Task Title
2000240501	Respond to Low Torus Water Level

Knowledge and Abilities Associations

System	K/A No	Statement	RO	SRO
206000	2.4.06	Knowledge symptom based EOP mitigation strategies	3.1	4.0

		(CFR 41.10, 43.5, 45.13)		

Static Simulator Exams: None
Last Revised: 12/22/2004 1:18:37 PM by Hallonquist, Nora E.

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Question No. 87 Exam Bank Question No.: 5982 Revision: 4 Point Value: 1
SRO Only: Yes Instructor Guide: LOT-00-610 Objective: SRO 3
Question Level: Comprehension

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Select the correct answer:

An ATWS condition exists and EOP-2 is being implemented with the following conditions:

- Bus 8 tripped due to bus fault
- 'A' CRD pump is tagged out
- Torus temperature is 108°F and rising
- Reactor power is 3%
- RPV Level is +5"

When the CRO attempted to inject SLC:

- 'A' SLC pump did not start
- 'A' squib valve light remained lit throughout the SLC switch manipulation

What procedure direction should be implemented to inject SLC?

	Answer/Distractor	Justification
a.	Direct Appendix I, Alternate SLC Initiation, bypassing the SLC Initiation Switch for "A" pump and "A" squib valve.	Correct Response - Switch failed, 'A' pump available from Bus 9
b.	Direct Appendix I, Alternate SLC Initiation, fire 'A' squib and start 'A' pump from the control room.	Incorrect - Local firing will work, switch malfunction
c.	Direct Appendix J, Boron Injection Using RWCU.	Incorrect - Equipment referenced is inappropriate due to loss of Bus 8
d.	Direct Appendix K, Boron Injection Using CRD System from SLC Tank.	Incorrect - No CRD pumps available. 'A' CRD tagged out, 'B' CRD pump powered from Bus 8.

References: OE 3107 Appendix I
Source: New
Required Student References: None
SRO Reference: 10CFR55.43.b.5

Task Associations

Task Number	Task Title

3102080502/0 Direct Alternate Injection Using SLC Test Tank
3

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
211000	2.4.07	Knowledge of event based EOP mitigation strategies (CFR 41.10, 43.5, 45.13)	3.1	3.8

Static Simulator Exams: None
Last Revised: 12/22/2004 1:18:20 PM by Hallonquist, Nora E.

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Question No. 88 Exam Bank Question No.: 5994 Revision: 3 Point Value: 1
SRO Only: Yes Instructor Guide: LOT-05-215 Objective: SRO 1
Question Level: Comprehension

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Select the correct answer:

Given the following conditions:

- Rx Power at 100%
- "B" APRM bypassed for maintenance
- APRM Flow Bias Off Normal Alarm (5-M-5) is alarming
- Flow signals for APRM A, C, E all read 125%
- Red light for Hi Flow or Recirc Flow Converter "A" is lit

Select the required action(s):

	Answer/Distractor	Justification
a.	Insert a 1/2 scram on RPS "A" and place the Rx in Cold Shutdown in 24 hours.	Incorrect - 1/2 scram is correct but no shutdown is required per T.S. 3.1
b.	Reduce power to ≤ 30% in 8 hours	Incorrect - Must insert 1/2 scram, no power reduction necessary
c.	Insert a 1/2 scram on RPS "A" only	Correct Response - T.S. 3.1.1 specifies actions necessary
d.	Insert a 1/2 scram on RPS "A" and reduce power to the IRM range in 8 hours.	Incorrect - 1/2 scram required, but no power reduction necessary

References: ARS 5-M-5
Source: New
Required Student References: T.S. Table 3.1.1
SRO Reference: 10CFR55.43.b.2

Task Associations

Task Number	Task Title
3410320302/03	Evaluate Plant System Performance and Coordinate Appropriate Actions per Technical Specifications/TRM/ODCM in the Event A Limiting Condition for Operation is Entered or not Satisfied

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
215005	A2.06	Ability to (a) predict the impacts of the following on the AVERAGE POWER RANGE MONITOR/LOCAL	3.4	3.5

		POWER RANGE MONITOR SYSTEM; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: (CFR 41.5 / 45.6): Recirculation flow channels upscale		

Static Simulator Exams: None
Last Revised: 12/22/2004 1:17:20 PM by Hallonquist, Nora E.

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Question No. 89 Exam Bank Question No.: 3901 Revision: 3 Point Value: 1
SRO Only: Yes Instructor Guide: LOT-00-601 Objective: SRO 10
Question Level: Comprehension

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Select the correct answer:

The following plant conditions exist:

- Group 1 isolation and reactor scram occurred
- RPV pressure is 1020 psig and rising

During cycling of the SRVs, predict the response if the SRV discharge line 10-inch vacuum breaker fails open and determine what procedures should be implemented to mitigate the transient.

	Answer/Distractor	Justification
a.	Torus air space temperature will rise rapidly. DW pressure will lead torus pressure. Enter EOP-3 and direct torus and DW sprays.	Incorrect - Discharges to DW air space, not torus
b.	Torus air space temperature will rise rapidly. DW pressure will lag torus pressure. Enter EOP-3 and direct torus spray only.	Incorrect - Discharges to DW air space, not torus
c.	Drywell temperature will rise rapidly. DW pressure will lead torus pressure. Enter EOP-3 and direct torus and DW sprays.	Correct Response - DW air space temp discharge. DW will lead torus like a recirc break.
d.	Drywell temperature will rise rapidly. DW pressure will lag torus pressure. Enter EOP-3 and direct torus sprays only.	Incorrect - DW pressure will lead torus pressure

References: EOP-3, Primary Containment Control; LOT-00-218 TP 1a
Source: New
Required Student References: None
SRO Reference: 10CFR55.43.b.5

Task Associations

Task Number	Task Title
2000210501	Respond to High Drywell Temperature

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
239002	A2.01	Ability to (a) predict the impacts of the following on the RELIEF/SAFETY VALVES; and (b) based on those predictions, use procedures to correct, control, or mitigate the ocnsequences of those abnormal conditions or operations: (CFR 41.5 / 45.6): Stuck open vacuum breakers	3.0	3.3

Static Simulator Exams: None
Last Revised: 12/22/2004 1:01:36 PM by Hallonquist, Nora E.

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Question No. 90 Exam Bank Question No.: 6000 Revision: 2 Point Value: 1
SRO Only: Yes Instructor Guide: LOT-01-262 Objective: SRO 7
Question Level: Fundamental Knowledge/Memory

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Select the correct answer:

The plant is at 100% power when the following occurs:

- A fault causes breaker 88 to trip open
- Bus 8 is cross-tied to Bus 9

The CRS must declare _____ diesel(s) inoperable. If an LNP coincident with a LOCA signal occurrs, breakers 8T9 and 9T8 _____ load shed.

	Answer/Distractor	Justification
a.	both; will not	Correct Response - 8T9 and 9T8 will not load shed OP 2143 Precaution 2g. Both D/Gs are declared inoperable due to load analysis per OP 2143 Section N and Appendix C
b.	"A" only; will not	Incorrect - Both D/Gs are declared inoperable due to load analysis
c.	both; will	Incorrect - 8T9 and 9T8 will not load shed OP 2143 Precaution 2g
d.	"A" only; will	Incorrect - 8T9 and 9T8 will not load shed OP 2143 Precaution 2g

References: OP 2143
Source: New
Required Student References: None
SRO Reference: 10CFR55.43.b.2

Task Associations

Task Number	Task Title
3410330302/03	Evaluate Plant Conditions and Coordinate Appropriate Actions per Plant Technical Specifications/TRM/ODCM in the Event a Limiting Safety System Setting is reached and/or exceeded

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
264000	A2.10	Ability to (a) predict the impacts of the following on the LOCA	3.9	4.2

		EMERGENCY GENERATORS (DIESEL/JET); and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: (CFR 41.5 / 45.6): LOCA		

Static Simulator Exams: None
Last Revised: 12/22/2004 1:04:20 PM by Hallonquist, Nora E.

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Question No. 91 Exam Bank Question No.: 5995 Revision: 4 Point Value: 1
SRO Only: Yes Instructor Guide: LOT-00-601 Objective: SRO 10
Question Level: Comprehension

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Select the correct answer:

Upon completion of a forced outage, Control Rod Withdrawal has commenced using Control Rod Sequence A2.

When Control Rod 14-35 is being withdrawn, annunciator (5-D-6), Rod Select Block Timer Malfunction, is received.

Control Rod 14-35 position is verified stopped at position 08.

Which of the following identifies the required action(s) in response to the above condition?

	Answer/Distractor	Justification
a.	Bypass the RWM and continue control rod withdrawal since additional staff is not required.	Incorrect - RWM is not the source of this block
b.	De-energize and then re-energize rod select power @ CRP 9-5, attempt to withdraw the next sequential control rod.	Incorrect - No procedural guidance to attempt, timer block will prohibit this step
c.	Bypass the RWM, station an additional operator, and continue rod withdrawals.	Incorrect - RWM is not source of this select block
d.	Contact I&C and halt all further control rod movement.	Correct Response - As specified in ARS 5-D-6

References: ARS 5-D-6
Source: New
Required Student References: None
SRO Reference: 10CFR55.43.b.6

Task Associations

Task Number	Task Title
2010050101	Operate Control Rods Using Single Notch Mode

Select Block

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
201002	A2.03	Ability to (a) predict the impacts of the following on the REACTOR MANUAL CONTROL SYSTEM; and (b)	2.9	2.8

		based on theose predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: (CFR 41.5 / 45.6): Select block		

Static Simulator Exams: None
Last Revised: 12/22/2004 1:00:43 PM by Hallonquist, Nora E.

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Question No. 92 Exam Bank Question No.: 237 Revision: 2 Point Value: 1
SRO Only: Yes Instructor Guide: LOT-04-215 Objective: SRO 1
Question Level: Comprehension

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Select the correct answer:

The Traversing In-Core Probe (TIP) is inserted into the core for a full core Local Power Range Monitor (LPRM) calibration when the following occurs:

- DW pressure is slowly increasing due to a small leak
- A loss of Vital AC occurs
- A manual scram is inserted due to the inability to restore Vital AC
- DW pressure is 3.2 psig
- The SM has determined he wants the primary containment isolated

Predict the impact on the TIP system and the procedural direction that should be implemented to achieve primary containment isolation.

	Answer/Distractor	Justification
a.	The TIP probe will automatically withdraw, the ball valve will close, and the automatic actions verified per DP 0166.	Incorrect - The loss of Vital causes a loss of power to the TIP machine. DP 0166 does direct verification of automatic actions.
b.	The TIP probe will NOT automatically withdraw, the ball valve will NOT close, and they must be manually withdrawn and closed per OP 2425.	Incorrect - TIP has lost power. OP 2425 is normally used to run the machine.
c.	The TIP probe will automatically withdraw, the ball valve will close, and the automatic actions verified per Table A of EOP-1.	Incorrect - TIP has lost power. EOP-1 entry condition has been met which includes verifying TIP has isolated.
d.	The TIP probe will NOT automatically withdraw, the ball valve will NOT close, and the shear valve must be fired per OP 2115.	Correct Response - TIP has lost power. The shear valves are DC powered and their use is directed through OP 2115.

References: OP 2115; OP 2144; OP 2145
Source: New
Required Student References: None
SRO Reference: 10CFR55.43.b.5

Task Associations

Task Number	Task Title
3100020502/0	Verify PCIS Isolations

3

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
215001	A2.07	Ability to (a) predict the impacts of the following on the TRAVERSING IN-CORE PROBE; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations: (CFR 41.5/ 45.6): Failure to retract during accident conditions: Mark-I&II (Not-BWR1)	3.4	3.7

Static Simulator Exams: None

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Question No. 93 Exam Bank Question No.: 5956 Revision: 2 Point Value: 1
SRO Only: Yes Instructor Guide: LOT-00-400 Objective: SRO 12
Question Level: Fundamental Knowledge/Memory

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Select the correct answer:

The plant is operating at power. An "A" RHR LCO period is scheduled in three weeks.

The online work management process for this LCO period is on schedule.

As the Operations SRO on the Work Management Team, reviewing the schedule at T-3, all of the activities are completed **EXCEPT**:

	Answer/Distractor	Justification
a.	Freeze work scope	Incorrect - Should be completed by T-6 week
b.	Initiate clearance request	Incorrect - Should be completed by T-5 week
c.	Freeze work schedule	Correct Response - Completed by T-2 week per EN-NM-101 Section 5.4
d.	Commence work package development	Incorrect - Should be completed by T-12 week

References: EN-NM-101 Section 5.4
Source: New
Required Student References: None
SRO Reference: 10CFR55.43.b.3

Task Associations

Task Number	Task Title
3420080302/03	Authorize Performance of Maintenance on Shift (Including Preventive Maintenance)

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
226001	2.2.17	Knowledge of the process for managing maintenance activities during power operations (CFR 43.5, 45.13)	2.3	3.5

Static Simulator Exams: None
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Question No. 94 Exam Bank Question No.: 5997 Revision: 2 Point Value: 1
SRO Only: Yes Instructor Guide: LOT-01-400 Objective: SRO 1
Question Level: Fundamental Knowledge/Memory

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Select the correct answer:

An RO normally assigned to your shift has been temporarily assigned to Training to complete a Task Analysis. His last plant access was 35 days ago.

What is required to restore site access and stand watch?

	Answer/Distractor	Justification
a.	Access restored after completing FFD testing	Incorrect - FFD testing not required
b.	Access restored after completing a self-disclosure statement	Incorrect - Not required unless badge removed
c.	Access restored to all non-vital areas, vital area access restored after FFD testing	Incorrect - FFD testing not required
d.	Access restored after receiving verification of Behavioral Observation Program by cognizant supervisor	Correct Response - RO worked in Training and was under BOP

References: EN-NS-101
Source: New
Required Student References: None
SRO Reference: 10CFR55.43.b.1

Task Associations

Task Number	Task Title
3430060302/0	Call in Additional Personnel, as Necessary

3

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
0	2.1.13	Knowledge of facility requirements for controlling vital / controlled access (CFR 41.10, 43.5, 45.9, 45.10)	2.0	2.9

Static Simulator Exams: None
Last Revised: 12/22/2004 1:15:20 PM by Hallonquist, Nora E.

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Question No. 95 Exam Bank Question No.: 5960 Revision: 3 Point Value: 1
SRO Only: Yes Instructor Guide: LOT-00-308 Objective: SRO 1
Question Level: Comprehension

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Select the correct answer:

It is 0200 during normal full power operation. The Control Room Supervisor's (CRS's) wife calls to tell him that she has gone into labor and that she must get to the hospital.

- At 0205 the CRS departs as directed by the Shift Manager (SM).
- At 0210 the SM calls the Operations Manager to inform him of the reduction in crew composition.
- At 0220 the SM reaches a relief for the CRS and directs him to come to work.
- At 0415 the CRS relief arrives and completes a turnover with the SM.

Which of the following is correct concerning the operating crew's compliance with the shift crew composition requirements?

	Answer/Distractor	Justification
a.	The CRS position should have been manned by a relief within two hours of the CRS's departure.	Correct Response - T.S. 6.2.B.4 allows a 2 hour window for emergency
b.	The operating crew has complied fully with shift manning requirements.	Incorrect - 2 hours were exceeded
c.	The CRS is not allowed to leave until the Operation Manager's permission is obtained.	Incorrect - Operation Manager needs to be notified only
d.	The CRS is not allowed to leave until his relief has arrived and has been briefed.	Incorrect - T.S. allow 2 hour window

References: T.S. 6.2.B.4
Source: Monticello 2002 NRC Exam
Required Student References: None
SRO Reference: 10CFR55.43.b.2

Task Associations

Task Number	Task Title
3430060302/0	Call in Additional Personnel, as Necessary

3

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
0	2.1.04	Knowledge of shift staffing requirements (CFR 41.10, 43.2)	2.3	3.4

Static Simulator Exams: None
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Question No. 96 Exam Bank Question No.: 5963 Revision: 2 Point Value: 1
SRO Only: Yes Instructor Guide: LOT-00-402 Objective: SRO 15
Question Level: Comprehension

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Select the correct answer:

During the performance of the Core Spray Pump Operability Quarterly Surveillance OP 4123, the system engineer wants to perform a test to assess the minimum flow valve.

The test will involve cycling the MINIMUM FLOW CS-5B with FULL FLOW TEST CS-26B OPEN, and taking some readings on discharge pressure and system flow.

The surveillance is scheduled for next week.

A _____ LPC should be used with 10CFR50.59 screening/evaluation performed _____ .

	Answer/Distractor	Justification
a.	preapproved; before the test	Correct Response - Sufficient time exists and the change is an intent change. Preapproved LPCs require 50.59 screening/evaluation before implementation (AP 0097 4.1.1 VYAPF 0097.01)
b.	preapproved; within 14 days of implementation of the LPC	Incorrect - 50.59 screening/evaluation before implementation
c.	provisional; before the test	Incorrect - Intent change, sufficient time exists
d.	provisional; within 14 days of implementation of the LPC	Incorrect - Intent change, sufficient time exists, 50.59 screening/evaluation before implementation

References: AP 0097, Section 4.1.1 and 4.1.2; ENN-LI-100; ENN-LI-101
Source: New
Required Student References: None
SRO Reference: 10CFR55.43.b.3

Task Associations

Task Number	Task Title
3437030302/0	Submit Partial Change to Plant Procedures

Knowledge and Abilities Associations

System	K/A No	Statement	RO	SRO
0	2.2.07	Knowledge of the process for conducting tests for experiments not described in the safety analysis report (CFR 43.3, 45.13)	2.0	3.2

Static Simulator Exams: None
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Question No. 97 Exam Bank Question No.: 5964 Revision: 4 Point Value: 1
SRO Only: Yes Instructor Guide: LOT-00-402 Objective: SRO 5e
Question Level: Comprehension

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Select the correct answer:

During implementation of an approved troubleshooting work order (T/S WO) it becomes evident that it is necessary to breach the secondary containment. The required course of action is to:

	Answer/Distractor	Justification
a.	stop work and recommence after a barrier breach permit is completed and approved.	Incorrect - Work that requires a barrier breach permit can not be done under a trouble shooting work order.
b.	continue work, activities governed by a T/S WO do not require a barrier breach permit.	Incorrect - Any work that breaches Secondary Containment requires a barrier breach permit.
c.	stop work and generate a planned Work Order or rescope the T/S WO including barrier breach permit.	Correct Response - Work that requires a barrier breach permit will need to be done as a planned work order. Breaching the Secondary Containment requires a barrier breach permit.
d.	continue work with SM permission and complete a barrier breach permit in parallel with the T/S WO activity.	Incorrect - Work that requires a barrier breach permit can not be done under a trouble shooting work order.

References: AP 0050
Source: New
Required Student References: None
SRO Reference: 10CFR55.43.b.3

Task Associations

Task Number	Task Title
3420070302/0	Review Work Order Requests

3

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
0	2.2.20	Knowledge of the process for managing troubleshooting activities (CFR 43.5, 45.13)	2.2	3.3

Static Simulator Exams: None

Last Revised: 12/22/2004 12:55:14 PM by Hallonquist, Nora E.

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Question No. 98 Exam Bank Question No.: 5967 Revision: 3 Point Value: 1
SRO Only: Yes Instructor Guide: LOT-00-404 Objective: SRO 5
Question Level: Fundamental Knowledge/Memory

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Select the correct answer:

During a refuel outage, what are the ALARA related restrictions placed on Drywell access while fuel movements are underway?

	Answer/Distractor	Justification
a.	An additional RP technician must be on duty at DW Checkpoint with direct communications to the Control Room.	Incorrect - Incorrect communication established not IAW AP 0518
b.	Drywell upper elevations must be barricaded to prevent access above upper elevations, direct communications must be established between refuel floor and DW Checkpoint.	Correct Response - AP 0518 Prereg 2a for communication and Step 5 specifies access to upper elevations
c.	Direct communications must be established between refuel floor and DW Checkpoint and all access to DW is prohibited.	Incorrect - Access is restricted to upper elevations only
d.	Drywell upper elevations must be barricaded to prevent access above upper elevations and an RP tech MUST accompany any personnel entering in the drywell.	Incorrect - RP escort not required for DW entry

References: AP 0518, Prereq 2, Step e
Source: New
Required Student References: None
SRO Reference: 10CFR55.43.b.4; 10CFR55.43.b.7

Task Associations

Task Number	Task Title
3410290302/0	Supervise Refueling Operations as SRO on Refuel Floor 3

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO
0	2.3.02	Knowledge of facility ALARA program (CFR 41.12, 43.4,	2.5	2.9

		45.9, 45.10)		

Static Simulator Exams: None
Last Revised: 12/22/2004 12:56:51 PM by Hallonquist, Nora E.

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Question No. 99 Exam Bank Question No.: 6001 Revision: 2 Point Value: 1
SRO Only: Yes Instructor Guide: LOT-03-400 Objective: SRO 1
Question Level: Fundamental Knowledge/Memory

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Select the correct answer:

While operating at power, a service water rupture in the reactor building has occurred. During implementation of procedures, the following directions conflict:

- OP 2181 - secure all SW pumps
- ON 3148 - manually scram the reactor, reduce SW pumps operating to two
- EOP-4 - complete Reactor Shutdown per OP 0105
- ARS (6-A-5) SERV WTR HDR PRESS LO - start all SW pumps, perform Reactor Shutdown

What action should be implemented? Why?

	Answer/Distractor	Justification
a.	Implement OP 2181; preventing pump damage is critical	Incorrect - OP 2181 actions are incorrect
b.	Implement ON 3148; reactor scram is required due to loss of heat sink	Correct Response - Loss of heat sink to equipment requires reactor scram
c.	Implement EOP-4; EOP actions override low tier procedures	Incorrect - EOP-4 does not prohibit a scram, but direct shutdown based on non-primary system
d.	Implement ARS (6-A-5); controlled restoration of SW and plant shutdown is required	Incorrect - ARS actions are incorrect

References: ON 3148; EOP-4
Source: New
Required Student References: None
SRO Reference: 10CFR55.43.b.5

Task Associations

Task Number	Task Title
3430410302/0	Evaluate the Adequacy of Procedures to Ensure Safe Operations

3

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO

0	2.4.05	Knowledge of the organization of the operating procedures network for normal, abnormal, and emergency evolutions (CFR 41.10, 43.5, 45.13)	2.9	3.6

Static Simulator Exams: None
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Question No. 100 Exam Bank Question No.: 5970 Revision: 2 Point Value: 1
SRO Only: Yes Instructor Guide: LOT-00-900 Objective: SRO 2
Question Level: Comprehension

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Select the correct answer:

During a **REFUELING OUTAGE** with refueling in progress, the plant experiences an electrical transient with the following conditions:

- Loss of DC-3A
- Loss of annunciators on 9-3, 9-4, 9-5, 9-6, 9-7, 9-8
- Loss of ERFIS/DAS
- Conditions have existed for 15 minutes

What is the correct classification per AP 3125?

	Answer/Distractor	Justification
a.	No emergency classification exist	Correct Response - Correct in Mode 5 Refuel. No classification is applicable.
b.	Unusual Event (U-7-b)	Incorrect - Incorrect Mode, incorrect for Modes 1, 2, 3. ERFIS also unavailable.
c.	Alert (A-7-a)	Incorrect - Incorrect Mode, correct for Modes 1, 2, 3.
d.	Site Area Emergency (S-7-a)	Incorrect - Incorrect Mode, need a transient also to be correct for Modes 1, 2, 3.

References: AP 3125
Source: New
Required Student References: AP 3125
SRO Reference: 10CFR55.43.b.5

Task Associations

Task Number	Task Title
3447040302/0 3	Implement Reporting Requirements of Emergency Plan as Directed
3447080302/0 3	Assume Duties of Plant Emergency Director

Knowledge and Abilities Associations

System	K/A No.	Statement	RO	SRO

100

0	2.4.32	Knowledge of operator response to loss of all annunciators (CFR 41.10, 43.5, 45.13)	3.3	3.5

Static Simulator Exams: None
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