

STP-11-2007
Comments on DRAFT Outlines
June 29, 2007

Written Exam

1. Provide more detail on Rejected KA's: why not able to formulate RO level question (3 KA's) and SRO level question (1 KA)

Scenario

1. Identify Event numbers used to determine abnormal events on ES-301-4

Control Room / In-Plant Systems JPMs

1. Is JPM S4 in Safety Function (SF) 2 or 4? Listed as SF2 on the outline but APE 015/017 is listed on ES-401-2 (Tier 1/Group 1) as a SF4.
2. Is JPM S6 in SF7 or S5? Listed as SF7 on the outline but system 103 is listed in SF5 in NUREG-1122.
3. Is KA for S2 061 or 059?
4. Administrative – remove reference to a-b-c on the ES-301-2 (just use S1, S2, etc).
5. Administrative – where are C1 and C2 anticipated to be run? (Answer – simultaneously run in both unit control rooms and the simulator)

Admin JPMs

1. KA's for 2 of 4 RO JPMs (A3 and A4) are repeats of generic KA's on the written exam – make sure same knowledge is not tested twice
2. KA for 1 SRO JPM (A5) is a repeat of the generic KA's on the written exam – make sure same knowledge is not tested twice
3. KA's for 2 SRO JPMs (A5 and A7) are repeats from the 2005 NRC exam – make sure knowledge tested on A5 is not a repeat of the 2005 exam and consider replacing A7 with a different KA.
4. KA for SRO JPM A8 is a repeat from both the 2003 and 2005 NRC exams – find a replacement KA.

RO OUTLINE 10CFR55.41(b) CROSS REFERENCE

1

2

2 - 9

068 K1.02

005 K1.08

006 K1.13

063 K1.02

3

4

5

003 A1.07

010 A2.02

001 A2.06

004 A2.11

022 A1.02

035 A1.02

006 K5.04

039 K5.05

017 K5.02

007 A2.05

073 K5.03

5, 10

APE 076 AK3.06

EPE 011 EK3.14

EPE W/E08 EK3.2

APE 054 AK3.02

APE 058 AK3.01

6

7

EPE 007 EK2.02

APE 062 AA1.06

EPE W/E06 EK2.1

008 K4.02

059 K4.19

076 K4.06

011 K6.04

079 K4.01

APE 022 AA1.06

APE 065 AA1.02

EPE W/E13 EA1.3

008 A4.08

061 K2.01

078 A3.01

015 A3.03

026 K3.01

APE 027 AK2.03

APE 059 AA1.01

004 K6.27

012 K3.01

064 K6.08

103 A3.01

028 K2.01

APE 040 AK2.01

EPE W/E03 EK2.1

007 A4.01

013 K2.01

064 A4.01

103 K3.03

045 K3.01

8

8, 10

	EPE 009 EK1.02	EPE 038 EK1.04	EPE W/E04 EK1.2
APE 005 AK1.05			

9

10

2.1.3	2.2.13	2.4.18	2.4.25
APE 008 G2.4.24	APE 026 G2.4.10	062 G2.1.20	033 G2.4.10

11

12

13

14

Unknown

	2.1.11	2.1.14	2.2.4
2.3.1	2.3.2	2.4.35	015/017 AA2.09
APE 025 AA2.01	EPE 029 EA2.07	EPE 055 G2.4.48	APE 051 AA2.02
APE 068 AA2.11	076 G2.1.30		

SRO OUTLINE 10CFR55.43(b) CROSS REFERENCE

1

2 APE 033 G2.2.23 103 G2.4.4 G2.1.4 G2.1.12
G2.4.4

3 G2.2.6

4 G2.3.10

5 APE 025 AA2.02 APE 027 G2.4.47 EPE 038 EA2.05 APE 054 AA2.07
APE 068 G2.4.48 EPE E/E12 EA2.1 APE 001 AA2.03 APE 068 AA2.03
EPE W/E03 EA2.2 005 G2.4.11 010 A2.01 061 A2.04
076 A2.01 014 A2.04 017 A2.02 041 A2.03
G2.4.44

6 G2.2.27

7

Facility: South Texas Project

Date of Examination: 11/5/2007

Examination Level (circle one): **RO** SRO

Operating Test Number: 1 (NRC)

Administrative Topic (see Note)	Type Code*	Describe activity to be performed:
(A1) Conduct of Operations	D, R	VERIFY FAULTED RCS INVENTORY K/A 2.1.18 (2.9) Ability to make accurate, clear and concise logs, records, status boards, and reports
(A2) Conduct of Operations	N, R	DETERMINE DILUTION REQUIRED FOR POWER INCREASE K/A 2.1.7 (3.7) Ability to evaluate plant performance and make operational judgements based on operating characteristics, reactor behavior, and instrument interpretation
(A3) Equipment Control	D, R	WRITE ECO FOR A CL-ACW PUMP K/A 2.2.13 (3.6) Knowledge of tagging and clearance procedures <i>written exam K/A</i>
(A4) Radiation Control	N, R	CALCULATE MAXIMUM STAY TIME <i>written exam</i> K/A 2.3.1 (2.6) Knowledge of 10CFR20 and related facility radiation control requirements <i>K/A</i>
Emergency Plan	NA	NA

NOTE: All items (5 total) are required for SROs. RO applicants require only 4 items unless they are retaking only the administrative topics, when 5 are required.

*Type Codes and Criteria: (C)ontrol Room; (S)imulator; Class(R)oom
 2 (D)irect from bank (≤ 3 for ROs; (≤ 4 for SROs & RO retakes)
 2 (N)ew or (M)odified from bank (≥ 1)
 ∅ (P)revious 2 exams (≤ 1; randomly selected)

Facility: South Texas Project

Date of Examination: 11/5/2007

Examination Level (circle one): RO **SRO**

Operating Test Number: 1 (NRC)

Administrative Topic (see Note)	Type Code*	Describe activity to be performed:
(A5) Conduct of Operations	D, R	DETERMINE TS ACTION FOR ABNORMAL RCS ACTIVITY <i>written exam KA</i> K/A 2.1.12 (4.0) Ability to apply technical specifications for a system <i>2005 KA</i>
(A6) Conduct of Operations	D, R	REVIEW OPERATOR LOGS K/A 2.1.3 (3.4) Knowledge of shift turnover practices
(A7) Equipment Control	D, R	REVIEW A FAULTED ECO (RHR PUMP) <i>2005 KA</i> K/A 2.2.13 (3.8) Knowledge of tagging and clearance procedures
(A4) Radiation Control	N, R	CALCULATE MAXIMUM STAY TIME K/A 2.3.1 (3.0) Knowledge of 10CFR20 and related facility radiation control requirements
(A8) Emergency Plan	N, R	DETERMINE EMERGENCY CLASSIFICATION <i>KA on 2003 and 2005 exam</i> K/A 2.4.41 (4.1) Knowledge of the emergency action level thresholds and classifications <i>PAR - (Exam reqs)</i>

NOTE: All items (5 total) are required for SROs. RO applicants require only 4 items unless they are retaking only the administrative topics, when 5 are required.

***Type Codes and Criteria:** (C)ontrol Room; (S)imulator; Class(R)oom
 Σ (D)irect from bank (≤ 3 for ROs; (≤ 4 for SROs & RO retakes)
 Σ (N)ew or (M)odified from bank (≥ 1)
 (P)revious 2 exams (≤ 1; randomly selected)

Facility: South Texas Project

Date of Examination: 11/05/2007

Exam Level (circle one): RO / SRO(I) / SRO(U)

Operating Test No.: 1 (LOT 16 NRC)

Control Room Systems[@] (8 for RO; 7 for SROI; 2 or 3 for SROU, including 1 ESF)

System / JPM Title	Type Code*	Safety Function
a. (S1) RESPOND TO CCW LEAK (LEAK OCCURS WHILE SHIFTING PUMPS)	S,A,N	VIII <i>008 CCW</i> ✓
b. (S2) TRANSFER MFW CONTROL TO MFW REG. VALVES	S,D	IV - S <i>059-MFW</i> ✓
c. (S3) RESTORE OFFSITE POWER TO ESF BUSES	S,D	VI <i>062-AC</i> ✓
d. (S4) RE-ESTABLISH RCP SEAL INJECTION	S,A,M	IV-P II <i>APG 015/017</i> ?
e. (S5) REACTOR MAKEUP SYSTEM FAILURE	S,A,M	I <i>Generic</i> ✓
f. (S6) RESPOND TO A CONTAINMENT RAD MONITOR ALARM (RT-8012) (ESF SYSTEM)	S,A,D	VII <i>103-Cont</i> V ?
g. (C1) TRANSFER TO HOT LEG RECIRC	C,L,D	III <i>EPE-011</i> ✓
h. (C2) PLACE H ₂ RECOMBINER IN SERVICE (RO ONLY)	C,L,D	V <i>028-H₂ Comb</i>

In-Plant Systems[@] (3 for RO; 3 for SROI; 3 or 2 for SROU)

i. (P1) LOCALLY VERIFY CONTAINMENT ISOLATION PHASE B	R,D,L,E	V <i>Generic</i> ✓
j. (P2) PLACE 1E BATTERY CHARGER IN SERVICE	A,D	VI <i>043-DC</i> ✓
k. (P3) LOCALLY OPERATE SG PORV	D,L,E	IV - S <i>Generic 2-1-20 Mod. stem</i>

@ All RO and SRO-I control room (and in-plant) systems must be different and serve different safety functions; all 5 SROU systems must serve different safety functions; in-plant systems and functions may overlap those tested in the control room.

*Type Codes

Criteria for RO/SRO-I/SRO-U

(A)lternate Path	4-6 / 4-6 / 2-3	<i>5/5</i>
(C)ontrol Room		
(D)irect from Bank	≤ 9 / ≤ 8 / ≤ 4	<i>8/7</i>
(E)mergency or abnormal in-plant	≥ 1 / ≥ 1 / ≥ 1	<i>2/2</i>
(L)ow-Power / Shutdown	≥ 1 / ≥ 1 / ≥ 1	<i>4/3</i>
(N)ew or (M)odified from bank including 1(A)	≥ 2 / ≥ 2 / ≥ 1	<i>3/3 both with 2 Alt. path</i>
(P)revious 2 exams	≤ 3 / ≤ 3 / ≤ 2 (randomly selected)	<i>0/0</i>
(R)CA	≥ 1 / ≥ 1 / ≥ 1	<i>1/1</i>
(S)imulator		

NOTE: The following simulator JPMs are designed to be done concurrent: S1&S2; S3&S4; S5&S6

Facility: <u>South Texas Project</u>		Date of Examination: <u>11/05/2007</u>
Exam Level (circle one): RO / SRO(I) / SRO(U)		Operating Test No.: <u>1 (LOT 16 NRC)</u>
Control Room Systems [@] (8 for RO; 7 for SROI; 2 or 3 for SROU, including 1 ESF)		
System / JPM Title	Type Code*	Safety Function
a. (S5) REACTOR MAKEUP SYSTEM FAILURE	S,A,M	I <input checked="" type="checkbox"/>
b. (S6) RESPOND TO A CONTAINMENT RAD MONITOR ALARM (RT-8012) (ESF SYSTEM)	S,A,D	VII <input checked="" type="checkbox"/>
In-Plant Systems [@] (3 for RO; 3 for SROI; 3 or 2 for SROU)		
i. (P1) LOCALLY VERIFY CONTAINMENT ISOLATION PHASE B	R,D,L,E	V
j. (P2) PLACE 1E BATTERY CHARGER IN SERVICE	A,D	VI
k. (P3) LOCALLY OPERATE SG PORV	D,L,E	IV - S
<p>@ All RO and SRO-I control room (and in-plant) systems must be different and serve different safety functions; all 5 SROU systems must serve different safety functions; in-plant systems and functions may overlap those tested in the control room.</p>		
*Type Codes	Criteria for RO/SRO-I/SRO-U	
(A)lternate Path	4-6 / 4-6 / 2-3 3	
(C)ontrol Room	—	
(D)irect from Bank	≤ 9 / ≤ 8 / ≤ 4 4	
(E)mergency or abnormal in-plant	≥ 1 / ≥ 1 / ≥ 1 2	
(L)ow-Power / Shutdown	≥ 1 / ≥ 1 / ≥ 1 2	
(N)ew or (M)odified from bank including 1(A)	≥ 2 / ≥ 2 / ≥ 1 1	
(P)revious 2 exams	≤ 3 / ≤ 3 / ≤ 2 (randomly selected) <input checked="" type="checkbox"/>	
(R)CA	≥ 1 / ≥ 1 / ≥ 1 1	
(S)imulator		

NOTE: The following simulator JPMs are designed to be done concurrent: S5&S6

SYSTEM JPM K/A BASES

✓ **(S1) RESPOND TO CCW LEAK (LEAK OCCURS WHILE SHIFTING PUMPS)**

008 A1.04 (3.1, 3.2) Ability to predict and/or monitor changes in parameters (to prevent exceeding design limits) associated with operating the CCWS controls including: Surge tank level.

059 ✓ **(S2) TRANSFER MFW CONTROL TO MFW REG. VALVES**

061 A4.08 (3.0, 2.9) Ability to manually operate and monitor in the control room: Feed regulating valve controller

✓ **(S3) RESTORE OFFSITE POWER TO ESF BUSES**

062 A4.07 (3.1, 3.1) Ability to manually operate and/or monitor in the control room: Synchronizing and paralleling of different AC supplies

37 ✓ **(S4) RE-ESTABLISH RCP SEAL INJECTION**

APE 015/017 AA1.07 (3.5, 3.4) Ability to operate and/or monitor the following as they apply to the Reactor Coolant Pump Malfunctions: RCP seal water injection subsystem

✓ **(S5) REACTOR MAKEUP SYSTEM FAILURE**

2.1.20 (4.3, 4.2) Ability to execute procedure steps

SFS ✓ **(S6) RESPOND TO A CONTAINMENT RAD MONITOR ALARM (RT-8012)**

012 ✓ ^{SFS} 103 A3.01 (3.9, 4.2) Ability to monitor automatic operation of the containment system, including: Containment isolation

✓ **(C1) TRANSFER TO HOT LEG RECIRC**

EPE 011 EA1.11 (4.2, 4.2) Ability to operate and monitor the following as they apply to a Large Break LOCA: Long-term cooling of the core

✓ **(C2) PLACE H₂ RECOMBINER IN SERVICE (RO ONLY)**

028 A2.02 (3.5) Malfunctions or operations on the HRPS; and (b) based on those predictions, use procedures to correct, control or mitigate the consequences of those malfunctions or operations: LOCA condition and related concern over hydrogen

✓ **(P1) LOCALLY VERIFY CONTAINMENT ISOLATION PHASE B**

2.1.30 (3.9, 3.4) Ability to locate and operate components, including local controls

✓ **(P2) PLACE 1E BATTERY CHARGER IN SERVICE**

063 A3.01 (2.7, 3.1) Ability to monitor automatic operation of the DC electrical system, including: Meters, annunciators, dials, recorders, and indicating lights

(P3) LOCALLY OPERATE SG PORV

2.1.20 (4.3, 4.2) Ability to execute procedure steps

LOT16 NRC JPM DESCRIPTIONS

A1 - Verify faulted RCS inventory

The applicant is directed to perform a second verification on a completed Reactor Coolant System Inventory surveillance. The applicant is required to locate various procedural and calculation errors.

A2 - Determine dilution required for power increase

The applicant is given current plant conditions and is directed to calculate the Reactor Coolant System dilution necessary to offset power defect for a given power increase.

A3 - Write ECO for a Closed Loop Auxiliary Cooling Water pump

The applicant is given a work document for a Closed Loop Auxiliary Cooling Pump and is required to prepare an Equipment Clearance Order that will adequately cover the job.

A4 - Calculate maximum stay time

The applicant is given a task to perform inside the Mechanical Auxiliary Building. Using supplied RWPs and survey maps, the applicant is required to calculate the maximum stay time allowed to perform the task.

A5 - Determine Tech Spec action for abnormal RCS activity

The applicant is given the results of a Chemistry grab sample of the Reactor Coolant System following a reactor trip and high alarm on the CVCS Failed Fuel Monitor and is required to determine Tech Spec applicability along with any required actions and time frames.

A6 - Review operator logs

The applicant is given a Control Room log package for supervisor review and is required to locate various technical and/or procedural errors.

A7 - Review faulted ECO (RHR pump)

The applicant is given a prepared Equipment Clearance Order for the disassembly of an RHR pump for SRO review and is required to locate various technical and/or procedural errors.

A8 - Determine emergency classification

Following a dynamic simulator scenario in which the applicant was a participant, the applicant is required to determine the correct emergency classification based on the events that took place during the scenario.

S1 - Respond to CCW leak

The applicant is directed to shift Component Cooling Water trains. During the evolution, a leak develops on the system and the applicant is required to respond to the leak (alternate path).

S2 - Transfer feedwater control to main feedwater regulating valves

With the low power feedwater regulating valves in service, the applicant is directed to transfer control to the main feedwater regulating valves.

S3 - Restore offsite power to ESF buses

With the emergency diesel generator supplying an ESF bus, the applicant is directed to restore normal offsite power to the bus and place the emergency diesel generator in a cooldown cycle.

S4 - Re-establish RCP seal injection

The applicant is directed to start the standby charging pump following a trip of the in service pump. Shortly after startup, the standby pump trips and the applicant is required to restore seal injection using the positive displacement charging pump (alternate path).

S5 - Reactor makeup water system failure

The applicant is directed to perform a makeup to the Volume Control Tank to restore normal level. When placing the makeup system in service, the applicant will discover a malfunction with the system requiring an alternate makeup be performed (alternate path).

S6 - Respond to a containment radiation monitor alarm (RT-8012)

The applicant is directed to respond to a radiation monitoring system alarm (high alarm on a containment purge monitor). During the response, the applicant will discover that the containment purge system did not isolate properly and is required to manually isolate the system (alternate path).

C1 - Transfer to hot leg recirculation

Following a large break LOCA, the applicant is directed to transfer the Safety Injection System from cold leg recirculation to hot leg recirculation.

C2 - Place H₂ Recombiner in service

Following a large break LOCA, the applicant is directed to place a Hydrogen Recombiner in service.

P1 - Locally verify containment isolation Phase B

Following a loss of all AC power, the applicant is directed to locally verify Containment Isolation Phase 'B' valves are closed.

P2 - Place 1E battery charger in service

Following a trip of the AC input breaker for an in service battery charger, the applicant is directed to place the standby battery charger in service. When the AC input breaker for the standby battery charger is closed, it immediately trips back open requiring the applicant to contact supervision and re-perform procedural steps to place the standby battery charger in service (alternate path).

P3 - Locally operate Steam Generator PORV

Following a loss of all AC power, the applicant is directed to locally operate a Steam Generator PORV.

Scen 1
U1 I1 R1
U2 I2 R2
U3 I3 R3
SUR R4 R5

Scen 2
I1 R1 U1
I2 R2 U2
I3 R3 U3
SUR R5 R4

SROI-3
SROI-3
RO-5

STP-11-2007

FACILITY: SOUTH TEXAS PROJECT

DATE OF EXAM: 11/05/2007

OPERATING TEST NO.: 1

A P P L I C A N T	E V E N T T Y P E	Scenarios												T O T A L	M I N I M U M(*)		
		1			2			3			4				R	I	U
		C R E W P O S I T I O N			C R E W P O S I T I O N			C R E W P O S I T I O N			C R E W P O S I T I O N						
		S R O	A T C	B O P													
RO SRO-I SRO-U	RX	None					4							1	1	1	0
	NOR	1					1							2	1	1	1
	I/C	2,3, 5,6, 7					2,3, 7							8	4	4	2
	MAJ	4					6							2	2	2	1
	TS	2,3					N/A							2	0	2	2
RO SRO-I SRO-U	RX		None			4								1	1	1	0
	NOR		None			1								1	1	1	1
	I/C		2,5,7			2,3, 5,7								7	4	4	2
	MAJ		4			6								2	2	2	1
	TS		N/A			2,5								2	0	2	2
RO SRO-I SRO-U	RX			None			4							1	1	1	0
	NOR			1			None							1	1	1	1
	I/C			3,5,6			2,5							5	4	4	2
	MAJ			4			6							2	2	2	1
	TS			N/A			N/A							0	0	2	2
RO SRO-I SRO-U	RX		None				4							1	1	1	0
	NOR		None				1							1	1	1	1
	I/C		2,5,7				2,3, 7							6	4	4	2
	MAJ		4				6							2	2	2	1
	TS		N/A				N/A							0	0	2	2

Instructions:

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

Facility: South Texas Project Date of Examination: 11/05/2007 Operating Test No.: 1																
Competencies	APPLICANTS															
	RO / SRO-I / SRO-U				RO (SRO-I) SRO-U				RO / SRO-I / SRO-U				RO / SRO-I / SRO-U			
	SCENARIO				SCENARIO				SCENARIO				SCENARIO			
	1 (US)	2 (BOP)	3	4	1 (ATC)	2 (US)	3	4	1 (BOP)	2 (ATC)	3	4	1 (ATC)	2 (BOP)	3	4
Interpret/Diagnose Events and Conditions	2,3 4,5	2,3 6,7			2,5,7	2,3 5,6			3,4,6	2,5,6			2,5,7	2,3 6,7		
Comply With and Use Procedures (1)	ALL	1,3 4,7			2,4,5	ALL			1,3,4 5,6	2,4 5,6			2,4,5	1,3 4,7		
Operate Control Boards (2)	N/A	1,3 4,7			2,4 5,7	N/A			1,3,4 5,6	2,4 5,6			2,4 5,7	1,3 4,7		
Communicate and Interact	ALL	ALL			ALL	ALL			ALL	ALL			ALL	ALL		
Demonstrate Supervisory Ability (3)	2,3,4 5,6	N/A			N/A	2,3,4 5,6			N/A	N/A			N/A	N/A		
Comply With and Use Tech. Specs. (3)	2,3	N/A			N/A	2,5			N/A	N/A			N/A	N/A		

Notes:
 (1) Includes Technical Specification compliance for an RO.
 (2) Optional for an SRO-U.
 (3) Only applicable to SROs.

Instructions:

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

LOT16 operating Exam 10CFR55.45 Item Cross-Reference

The following cross-reference shows a sampling of “10CFR55.45 Operating Tests (a) *Content*” items addressed throughout the Operating Exam.

- (1) JPM S5, Reactor Makeup System failure.
Scenario 1, Event 3, manual control of steam generator level.
- (2) Scenario 2, Event 4, power reduction due to Condensate Pump failures.
- (3) JPM S1, Respond to CCW Leak.
Scenario 1, Event 6, Steam Dump valves fail to open.
- (4) All scenarios require the diagnosis of instrument readings to identify plant conditions.
- (5) All scenarios challenge the ability to safely control the facility.
- (6) All scenarios require control manipulations during abnormal and emergency conditions and one has a normal evolution.
- (7) JPM S1, Respond to CCW Leak.
JPM P3, Locally operate Steam Generator PORV
Scenario 1, Event 3, manual control of steam generator level
- (8) JPM S5, Reactor Makeup System failure
JPM S6, Respond to a Containment Radiation Monitor alarm
- (9) JPM S6, Respond to a Containment Radiation Monitor alarm
- (10) JPM P1 requires entry into the Radiologically Controlled Area and the application of radiation control procedures.
- (11) JPM A8, Determine Emergency Classification.
- (12) JPMs A1, A2 and A3 demonstrate the ability to perform the RO job function.
JPMs, A5, A6, A7 and A8 demonstrate the ability to perform the SRO job function.
- (13) All scenarios demonstrate the ability to function within the control room team.

LOT16 Probabilistic Risk Assessment Input Information

The South Texas Project Probabilistic Risk Assessment (STP PRA) Level 1 Quantification report and Risk Significance Basis Documents were reviewed to ensure that Events, Systems and Operator Actions which are important to plant safety or which contribute to driving events to a lower risk, are sampled throughout this examination:

The cross-reference below lists some PRA items from these reports and links the items to specific areas within the examination. The cross-reference is not an attempt to identify all items from these reports nor all areas where these items are addressed. It simply shows how PRA items, suitable for testing, are addressed throughout the examination on a sampling basis.

PRA Item Description	Related Examination Areas
Initiating event contributor to CDF	All scenarios contain events that are initiating contributors to Core Damage Frequency (CDF)
SGTR (top event sequence)	Scenario #1 contains a significant SGTR
Operator manually trips reactor for ATWS event (risk important operator action)	Scenario #1 contain an ATWS event
Operator isolated ruptured SG for SGTR event (risk important operator action)	Scenario #1 contains a SGTR
Operator transfers to hot leg recirculation for Large LOCA event (risk important operator action)	JPM C1 involves the transfer to hot leg recirculation
Class 1E 4.16KV system (high risk significance system)	Scenario #2 contains a loss of Class 1E 4.16KV bus
Rod Control System (high risk significance system)	Scenario #2 contains a dropped rod
Component Cooling Water System (high risk significance system)	JPM S1 involves a leak in the Component Cooling Water System
Chemical and Volume Control System (high risk significance system)	JPM S4 requires the operator to restore reactor coolant pump seal injection with the Positive Displacement Charging Pump.