

Facility: <b>Calvert Cliffs Nuclear Power Plant</b>		Date of Examination: <b>January 2011</b>
Exam Level: <b>SRO-I</b>		Operating Test No.: <b>2011</b>
Administrative Topic (see Note)	Type Code*	Describe activity to be performed
Conduct of Operations	N,R	SRO-Admin-1: Ability to perform a review of plant tests and determine required plant actions.  2.1.7 – Ability to evaluate plant performance and make operational judgments based on operating characteristics, reactor behavior, and instrument interpretation. (4.4, 4.7)
Conduct of Operations	N,R	SRO-Admin-2: Ability to determine the time to perform required actions during abnormal or emergency plant operations.  2.1.25 - Ability to interpret reference materials, such as graphs, curves, tables, etc. (3.9, 4.2)
Equipment Control	N,R	SRO-Admin-3: Ability to apply Technical Specifications for a system.  2.2.12 Knowledge of surveillance procedures (3.7, 4.1)
Radiation Control	N,R	SRO-Admin-4: Determine radiological conditions for personnel exposure.  2.3.7 Ability to comply with radiation work permit requirements during normal or abnormal conditions. (RO 3.5, SRO 3.6)
Emergency Procedures / Plan	N,R	SRO-Admin-5: Determine the appropriate emergency response actions per the ERPIP  2.4.38 Ability to take actions called for in the facility emergency plan, including supporting or acting as emergency coordinator if required. (2.4, 4.4)
NOTE: All items (5 total) are required for SROs. RO applicants require only 4 items unless they are retaking only the administrative topics, when all 5 are required.		
* Type Codes & Criteria: (C)ontrol room, (S)imulator, or Class(R)oom (D)irect from bank ( $\leq 3$ for ROs; $\leq 4$ for SROs & RO retakes) (N)ew or (M)odified from bank ( $\geq 1$ ) (P)revious 2 exams ( $\leq 1$ ; randomly selected)		

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Control Room Systems <sup>@</sup> (7 for SRO-I)			
System / JPM Title		Type Code*	Safety Function
a.	<b>Sim-1:</b> Verify Reactivity Control Safety Function 004.A2.14 Emergency Boration (3.8, 3.9)	A N S	1
b.	<b>Sim-2:</b> Unisolable CVCS leak 002.A2.01 Loss of coolant inventory (4.3, 4.4)	A N S	2
c.	<b>Sim-3:</b> LOCA with a loss of ECCS flow path 06.A2.11 Rupture of the ECCS header (4.0, 4.4)	A N S	3
d.	<b>Sim-4:</b> Verify Turbine Trip 45.A3.04 Ability to monitor automatic operation of the MT/G system, including: T/G trip (3.4, 3.6)	A N S	4 (Secondary)
e.	<b>Sim-5:</b> Respond to a Faulted S/G 035.A2.01 Faulted or ruptured S/Gs (4.5, 4.6)	A N S	4 (Primary)
f.	<b>Sim-6:</b> Respond to the loss of a 120 volt vital AC bus 062.A2.04 Effect on plant of de-energizing a bus (3.1, 3.4)	N S	6
g.	<b>Sim-7:</b> Override shut a PORV that is open due to instrument malfunction 007.A2.01 Stuck-open PORV or code safety (3.9, 4.2)	A L N S	5
In-Plant Systems <sup>@</sup> 3 for SRO-I			
h.	<b>Plant-1:</b> Ability to manually operate systems 008.A4.07 Control of minimum level in the CCWS surge tank (2.9, 2.9)	E N L R	8
i.	<b>Plant-2:</b> Deenergize an instrumentation cabinet 013.A2.06 Inadvertent ESFAS actuation (3.7, 4.0)	E N N	2
j.	<b>Plant-3:</b> Ability to manually operate systems 076.A4.02 SWS valves (2.6, 2.6)	D E L	4 (Secondary)
All RO and SRO-I control room (and in-plant) systems must be different and serve different safety functions; in-plant systems and functions may overlap those tested in the control room.			
* Type Codes		Criteria for SRO-I	
		Required	Actual
(A)lternate path		4-6	6
(C)ontrol room		-	0
(D)irect from bank		≤ 8	2
(E)mergency or abnormal in-plant		≥ 1	2
(E)ngineered safety feature		-	1
(L)ow-Power / Shutdown		≥ 1	3
(N)ew or (M)odified from bank including 1(A)		≥ 2	8
(P)revious 2 exams		≤ 3 (randomly selected)	0
(R)CA		≥ 1	1
(S)imulator		-	7