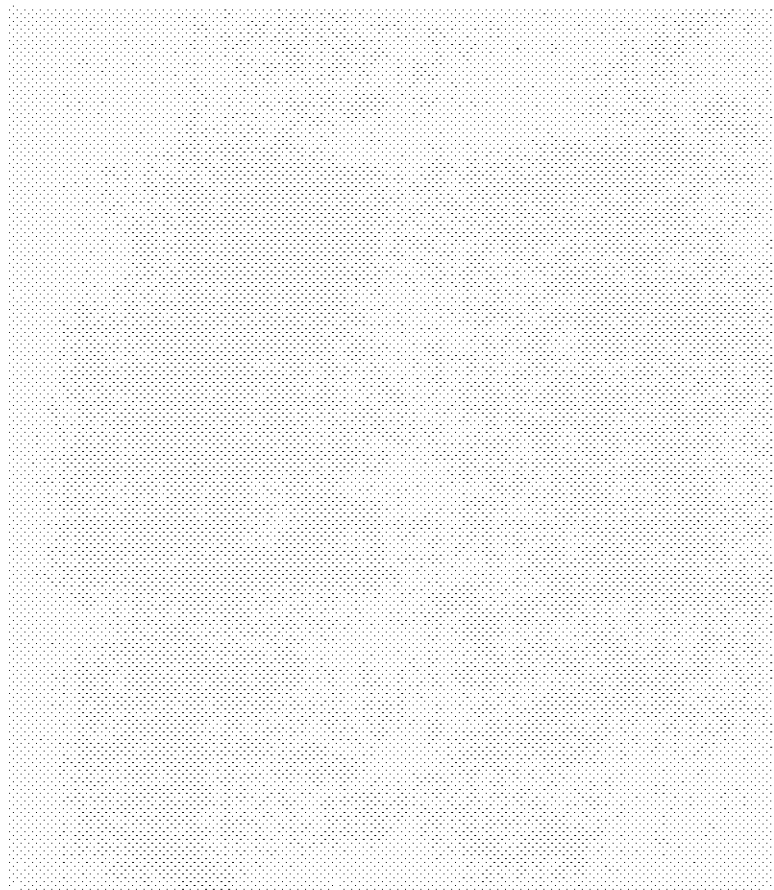


**Final Submittal**  
(Blue Paper)

**FINAL SAMPLE PLANS / OUTLINES**

**VOGTLE MAY 2005 EXAM**  
**50-424, 425/2005-301**

**MAY 17 - 25, 2005**  
**MAY 27, 2005 (WRITTEN)**



FINAL

Facility: Vogtle Examination Level: SRO		Date of Examination: May 2005 Operating Test Number: 2005-301
Administrative Topic (see Note)	Type Code*	Describe activity to be performed
Conduct of Operations	M	<b>Title: Determine Mode Change Requirements</b> Description: JPM will give a set of plant conditions, one of which will preclude making a mode change (i.e., Tech Spec that will not be met in next higher mode.) JPM will direct a determination of whether a mode change can be made and if not, what conditions are preventing the mode change. K/A: G2.1.10 (2.7/3.9)
Conduct of Operations	M	<b>Title: Shutdown Margin Calculation</b> Description: Determine shutdown margin at zero power at > 24 hours after a reactor trip, with RCS temperature at less than the hot zero power reference value. K/A: G2.1.7 (3.7/4.0)
Equipment Control	M	<b>Title: Construct Tagout for Unit 2 #4 Nuclear Service Cooling Water Pump</b> Description: Construct tagout without the use of pre-written tagouts from master tagouts or computerized tagging system. K/A: G2.2.13 (3.6/3.8)
Radiation Control	M	<b>Title: Life Saving in Emergency Conditions</b> Description: Perform dose calculation on a point source that will yield an accumulated dose of > 25 rem. Determine all individuals who must approve an entry to rescue an injured person and that the person making the entry must be a volunteer. Data Sheet 1 of 91301-C must be completed. K/A: G2.3.4 (2.5/3.1)
Emergency Plan	M	<b>Title: Emergency Classification</b> Description: Determine event classification of General Emergency with protective action recommendations. Plant conditions shall be different than previous bank JPMs. K/A: G2.4.29 (2.6/4.0)
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 (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) (S)imulator		

FINAL

Facility: Vogtle Examination Level: RO		Date of Examination: May 2005 Operating Test Number: 2005-301
Administrative Topic (see Note)	Type Code*	Describe activity to be performed
Conduct of Operations	M	<b>Title: Safety Function Status Checks</b> Description: Perform Safety Function Status Checks without the aid of the computer. JPM constructed for at least one safety function not satisfied. K/A: G2.1.7 (3.7/4.0)
Conduct of Operations	M	<b>Title: Shutdown Margin Calculation</b> Description: Determine shutdown margin at zero power at 28 hours after a reactor trip, with RCS temperature at less than the hot zero power reference value. K/A: G2.1.7 (3.7/4.0)
Equipment Control	M	<b>Title: Construct Tagout for Unit 2 #4 Nuclear Service Cooling Water Pump</b> Description: Construct tagout without the use of pre-written tagouts from master tagouts or computerized tagging system. K/A: G2.2.13 (3.6/3.8)
Radiation Control	M	<b>Title: Radiation Posting Requirements / Accumulated Dose</b> Description: A point source is located a few feet from a door. A map of the room should be used to depict the point source and the location of the radiation posting. The applicant must calculate the dose rate at the door as being greater than 100 mrem/hr, thus requiring the door to be posted HIGH RAD AREA. The JPM will have the applicant determine the posting requirement for the room. K/A: 2.3.4 (2.5/3.1)
Emergency Plan	N/A	N/A
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 (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) (S)imulator		

Facility: Vogtle		Date of Examination: May 2005
Exam Level (circle one): RO / SRO-I / SRO-U (see each JPM)		Operating Test No.: 2005-301
Control Room Systems <sup>®</sup> (8 for RO; 7 for SRO-I; 2 or 3 for SRO-U, including 1 ESF)		
System / JPM Title	Type Code*	Safety Function
a. Start and load EDG to dead bus. Load increases uncontrollably. (RO / SRO-I / SRO-U)  K/A: 062A1.01 (3.4/3.8)	M, A, S	6 (Electrical)
b. Depressurize RCS following SGTR in accordance with 19030-C, E-3, SGTR, Step 17. JPM will require use of auxiliary sprays. (RO / SRO-I / SRO-U)  K/A: 038EA1.04 (4.3/4.1)	L,N, A, E, S	3 (Pressure Control)
c. Perform Immediate Operator Actions for Toxic Gas Release. Two components fail to reposition. (RO / SRO-I / SRO-U)  K/A: 068G2.4.49 (Control Room Habitability / Evacuation – Safety Function 8)  Facility JPM: RQ-JP-18035-001	M, A, E, S	8 (Service Sys)
d. Perform RCS cooldown using steam dumps following SGTR in accordance with 19030-C, E-3, SGTR, Step 7. (RO / SRO-I)  K/A: 041A4.08 (3.0/3.1)	N, E, L, S	4 (Sec Heat Removal)
e. Manually makeup to VCT. Boric Acid transfer pump degrades and flow deviation alarms, but automatic actions fail to occur. (RO / SRO-I)  K/A: 004A2.06 (4.2/4.3)	N, A, S	1 (Reactivity)
f. Shift operating Charging Pump from NCP to 'A' CCP. NCP has high vibrations and 'B' CCP is tagged out. (RO / SRO-I)  K/A: 004A4.08 (3.8/3.4)	N, S	2 (Inventory Control)
g. Dilute Containment with Service Air in accordance with 19010-C, E-1, Loss of Reactor or Secondary Coolant, Step 19. (RO / SRO-I)  K/A: 028A4.01 (4.0/4.0)  Facility JPM: RQ-JP-13130-001	D, E, L, S	5 (Containment)
h. Place RHR Train in service and initiate a cooldown. (RO)  K/A: 005A4.01 (3.6/3.4)  Facility JPM: RQ-JP-13011-001	D, L, S	4 (Pri Heat Removal)

In-Plant Systems <sup>@</sup> (3 for RO; 3 for SRO-I; 3 or 2 for SRO-U)		
i. Release Unit 2 WMT 010. RE-018 exceeds setpoint, but RV-018 fails to close. (RO / SRO-I / SRO-U)  K/A: 068A2.04 (3.3/3.3)  Facility JPM: RQ-JP-17213-001	M, A, R	9 (Radioactivity Release)
j. Locally operate Steam Generator ARV. (RO / SRO-I / SRO-U)  K/A: 039G2.1.30(3.9/3.4)  Facility JPM: RQ-JP-19030-006	D, E, L,	4 (Sec Heat Removal)
k. Place a 1E 125 Vdc Battery Charger In Service (RO / SRO-I)  K/A: 058AA1.03 (3.1/3.3)  Facility JPM: RQ-JP-13405-001	D	6 (Electrical)
@ All control room (and in-plant) systems must be different and serve different safety functions; in-plant systems and functions may overlap those tested in the control room.		
* Type Codes	Criteria for RO / SRO-I / SRO-U	
(A)lternate path	4-6 / 4-6 / 2-3	
(C)ontrol room		
(D)irect from bank	≤ 9 / ≤ 8 / ≤ 4	
(E)mergency or abnormal in-plant	≥ 1 / ≥ 1 / ≥ 1	
(L)ow-Power / Shutdown	> 1 / > 1 / > 1	
(N)ew or (M)odified from bank including 1(A)	≥ 2 / ≥ 2 / ≥ 1	
(P)revious 2 exams	≤ 3 / ≤ 3 / ≤ 2 (randomly selected)	
(R)CA	> 1 / > 1 / ≥ 1	
(S)imulator		

Facility:	Vogtle	Scenario No.:	1	Op-Test No.:	2005-301
Examiners:	RSBaldwin (Chief Examiner)		Operators:		
	MABates				
	SDRose				
Initial Conditions:	Plant has been at 100% Power for five months following a refueling outage.				
Turnover:	Storms are approaching from the West and high winds are possible within the hour. (Severe Weather Checklist 11889-C)				
	SI Pump 'A' was tagged out yesterday at 0800 hours and is scheduled to be returned to service in 12 hours (TS 3.5.2 Condition A)				
	Normal Charging Pump is tagged out and expected to be returned to service at 1200 hours tomorrow. The 'B' CCP is operating. (TR 13.1.3 & 13.1.5)				
	NSCW Pump #3 running but is inoperable due to a failed IST. Maintenance is troubleshooting. (INFO LCO 3.7.8)				
	Steam Generator #1 has a 30 gallon / day tube leak. 18009-C section B in effect, action level 1 monitoring is in progress. TS 3.4.13 INFO LCO on identified RCS Leakage				
Event No.	Malf. No. / Position	Event Type*	Event Description		
1	BOP	I	Main Feedwater Pump discharge Pressure Transmitter (PT-508) fails high		
2	RO SRO (TS)	C	'A' Train Centrifugal Charging Pump (CCP) Discharge Header Pipe Break.		
3	RO SRO (TS)	I	Pressurizer Pressure Transmitter (PT-455) fails high and PORV 455A sticks 50% open		
4	BOP	I	Steam Generator # 2 Level Transmitter (LT-529) fails high.		
5	RO	C	Loss of VCT M/U and failure of CCP suction to swap to RWST.		
6	BOP / RO SRO (TS)	C	Small RCS Leak (sized to require TS directed shutdown)		
6A	BOP / RO SRO	N	Shutdown due to large boration from RWST and required by TS		
7	ALL	M	Small Break LOCA with automatic RPS trip failed and concurrent loss of Electrical Bus 1BA03. Break worsens to a medium break LOCA.		
* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor					

Facility:	Vogtle	Scenario No.:	2	Op-Test No.:	2005-301
Examiners:	RSBaldwin (Chief Examiner)		Operators:		
	MABates				
	SDRose				
Initial Conditions: The Unit is at 0% power in Mode 2 with a MOL reactor startup in progress.					
Turnover: The previous crew has initiated the reactor startup per UOP 12003-C. Source range counts are stable and Control bank 'C' is presently at 70 steps. 1/M data now projects criticality at 65 steps on Control bank 'D'. Continue with the reactor startup beginning with <b>step 4.2.21 of 12003-C</b> , and stabilize reactor power between 1-3%.					
The Severe Weather checklist is in progress due to thunderstorms approaching from the West. High winds are possible within the hour. (11889-C)					
Steam Generator #1 has a 30 gallon / day tube leak. 18009-C section B in effect, action level 1 monitoring is in progress. TS 3.4.13 INFO LCO on identified RCS Leakage					
NSCW Pump #3 running but is inoperable due to a failed IST. Maintenance is troubleshooting. (INFO LCO 3.7.8)					
Event No.	Malf. No. / Position	Event Type*	Event Description		
1	RO	R	Pull control rods to establish critical reactor.		
2	BOP SRO (TS)	C	Train 'A' NSCW Pump #1 trips and standby pump fails to automatically start.		
3	RO	I	Controlling channel Pressurizer Level Transmitter (LT-459) fails low.		
4	BOP	N	Re-establish letdown.		
5	BOP	I	Steam Generator #4 ARV Pressure Transmitter fails high.		
6	BOP / RO SRO (TS)	C	Letdown line break inside Containment		
7	RO	C	RCP #2 High Vibration.		
8	ALL	M	Steam Generator #3 double-ended guillotine break of main steam line in Containment.		
9	BOP or RO	C	Safety injection Train A fails to actuate and 'B' IHSI fails to automatically start when safety injection is manually initiated. The reactor fails to automatically trip. Automatic steamline isolation fails on both trains.		
* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor					

Facility:	Vogtle	Scenario No.:	4	Op-Test No.:	2005-301
Examiners:	RSBaldwin (Chief Examiner)	Operators:			
	MABates				
	SDRose				
Initial Conditions:	Plant has been at 100% Power for five months following a refueling outage.				
Turnover:	Storms are approaching from the West and high winds are possible within the hour. Severe weather checklist (11889-C)				
SI Pump 'A'	was tagged out yesterday at 0800 hours and is scheduled to be returned to service in 12 hours (TS 3.5.2). Condition A				
Normal Charging Pump	is tagged out and expected to be returned to service at 1200 hours tomorrow. The 'B' CCP is operating.				
Steam Generator #1	has a 30 gallon / day tube leak. 18009-C section B in effect, action level 1 monitoring is in progress. TS 3.4.13 INFO LCO on identified RCS Leakage				
NSCW Pump #3	running but is inoperable due to a failed IST. Maintenance is troubleshooting. (INFO LCO 3..7.8)				
	Maif. No. / Position	Event Type*	Event Description		
1	BOP	I	'B' Steam Generator controlling flow transmitter (FT-520) fails low.		
2	RO SRO (TS)	I	Channel 44 Power Range NI fails high.		
3	BOP SRO (TS)	C	'A' Steam Generator Main Steam Safety Valve fails open.		
4	RO	R	Power reduction (resulting from event 3).....		
5	BOP	C	'A' ACCW Pump locked rotor with standby pump failing to start.		
6	RO SRO (TS)	C	Letdown Heat Exchanger tube rupture.		
6A	RO	N	Places Excess Letdown in service		
7	ALL	M	Large Break LOCA (Double-ended guillotine break of hot leg). Auto and manual reactor trip fail. Rods do not automatically step in.		
8	ALL	C	Containment sump outlet valves fail to open.		
*	(N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor				