

Facility: Clinton Power Station Scenario No.: 2 Operating Test No.: 2021-301

Examiners: _____ Operators: _____

Initial Conditions:

- Mode 1 Rx Power at RTP.
- Weather conditions are calm and clear.
- MC Pump 'A' (0MC01PA) is OOS for maintenance. Not expected back this shift.

Turnover:

- On the previous shift, the Drywell was vented per CPS 3316.01 Containment Combustible Gas Control (HG) to support performance of CPS 9064.01 Drywell Post-LOCA Vacuum Breaker Verification Test.
- First Priority – Perform CPS 9064.01 Drywell Post-LOCA Vacuum Breaker Verification Test.
- Maintain power at RTP throughout the shift.

Critical Tasks:

- **[CT-1]** Inserts control rods to lower power below 65% to exit MELLLA within 10 minutes of tripping 'B' Reactor Recirculation pump.
- **[CT-2]** Enters and executes EOP-3 Emergency RPV Depressurization within 15 minutes of 2 or more of the following areas exceeding max safe temperature values of EOP-8 Table T Area Temperature Limits:
 - Point 14 1TR-CM326 (Upper Recorder) - Aux Bldg Below MS Tunnel > 200°F
 - Point 18 1TR-CM326 (Upper Recorder) - Aux Bldg Steam Tunnel > 200°F
 - Point 15 or 16 1TR-CM327 (Lower Recorder) - Aux Bldg MSIV Room A or B > 200°F

Event No.	Malif. No.	Event Type*	Event Description
1	N/A	N-BOP	Drywell Vacuum Breaker Test
2	YP_XMFTB_4102	I-BOP TS-SRO	(NEW) Spurious HPCS auto initiation
3	SA01B1SA1CFO SA01B0SA1CFTC	C-BOP	#1 SA Compressor trips with failure of Standby Compressor to Auto Start
4	RRB_HORZ_MALF 21.7 MILS RRB_VERT_MALF 21.1 MILS	C-ATC TS-SRO	(NEW) RR Pump 'B' high vibration
5	N/A	R-ATC	Reduce power to <65% with Control Rods
6	YP_XMFTB_4965 ROD0437TFIA4 ROD5221TFIA4	C-ATC	(NEW) RR Pump 'A' trip
7	YPMALSE_256 0.08%	M-All	(NEW) Low Power ATWS / Unisolable MSL 'D' Leak / Multiple area temps > Max Safe / EOP-3 Blowdown
8	YAFWHVFP_9 0%	C-All	(NEW) FRV 1FW004 Fails Shut
* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor NEW – Not used on the previous two (2) NRC exams.			

Facility: Clinton Power Station Scenario No.: 3 Operating Test No.: 2021-301

Examiners: _____ Operators: _____

Initial Conditions:

- Mode 1 at ~10% power.
- Thunderstorms are expected in the area within the next hour.
- CY Pump 'B' (0CY01PB) is OOS for maintenance. Not expected back this shift.

Turnover:

- CPS 3002.01 Heatup and Pressurization is complete.
- CPS 3004.01 Turbine Startup and Generator Synchronization is in progress. Section 5.0 Prerequisites are complete. Steps 8.1.1 and 8.1.5 are in progress. Steps 8.1.2 – 8.1.4 are complete.
- Main Turbine Chest Warming has just been completed.
- Control rods – On Step 15. Gang 7E, Rod 40-17 is at position 18.
- Priorities for the shift are as follows:
 - RHR 'A' is currently being flushed as directed by CPS 3312.03 Shutdown Cooling (SDC) & Fuel Pool Cooling And Assist (FP&A) by operating RHR 'A' in Pool to Pool mode per CPS 3312.01 Residual Heat Removal (RHR).
 - First Priority – Secure RHR 'A' operation in Pool To Pool mode per CPS 3312.01 Residual Heat Removal (RHR).
 - Continue with power ascension to 15% IAW Step 8.1.6 of CPS 3004.01. The RE has requested single rod, single notch rod motion.
 - After reaching 15% power, perform Turbine Roll IAW Step 8.1.8 of CPS 3004.01.

Critical Tasks:

- **[CT-1]** PC-3.1, SCRAMs the reactor before suppression pool level lowers to less than 15' 1".
- **[CT-2]** PC-3.3, Enters EOP-3 prior to suppression pool level reaching 15'1" and performs an emergency depressurization. If the suppression pool level lowers to less than 15'1" after the announcement is made to enter EOP-3, but before the blowdown is initiated, then this critical task is considered to be met.

Event No.	Malf. No.	Event Type*	Event Description
1	N/A	N-BOP	(NEW) Secure RHR 'A' Operation in Pool To Pool Mode
2	NA	R-ATC	Raise power with rods to 15%
3	ROD4017TFIA5	C-ATC TS-SRO	Uncoupled Rod
4	YP_XMFTB_4992 A04_A28_S23=2	C-BOP	(NEW) Trip of MSOP / ESOP fails to auto start
5	YFCUCTPW_1	C-ATC	'A' Reactor Water Cleanup Filter Demin Trip
6	A05_A02_A0204_1_TVM; A05_A02_A09DS08_1	I-BOP TS-SRO	(NEW) RCIC failure to auto-isolate on an isolation signal
7	YPMALSE_665 100% YPMALSE_666 100% A05_A02_A09S38_2=ON A05_A02_A16DS60_1=OFF A05_A02_A16DS61_1=OFF	M-All	Suppression Pool leak into the LPCS Room / RHR 'A' Pump Room / 1E21F001 LPCS Suppr Pool Suction Valve fails to close
8	A05_A02_A13S60B_1 A05_A02_A13S62B_1	C-All	Manual ADS Initiation Logic failure

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor
 NEW – Not used on the previous two (2) NRC exams.

Facility: Clinton Power Station Scenario No.: 4 Operating Test No.: 2021-301

Examiners: _____ Operators: _____

Initial Conditions:

- Mode 1 at 56% power.
- Weather conditions are calm and clear.
- MC Pump 'A' (OMC01PA) is OOS for maintenance. Not expected back this shift.

Turnover:

- Priorities for the shift are as follows:
 - First Priority – Continue performing HPCS Pump Operability IAW CPS 9051.01 HPCS Pump & HPCS Water Leg Pump Operability starting at step 8.2.7. An extra equipment operator is briefed, staged and ready to support the surveillance.
 - Continue with power ascension to 62% IAW CPS 3005.01 Unit Power Changes using rods.
 - CPS 3005.01 is complete through Step 8.1.10.
 - Control rods - Step 26 is current / Gang 10C @ position 08.

LCO's in effect

- HPCS is inop per ITS LCO 3.5.1 (day 2 of SOW) (entered at 0500 on the previous day).
- ORM 2.5.2 Action 3.5.2 due to HPCS MOV TEST PREP switch being in TEST (entered at 0500 on the previous shift).

Critical Tasks:

- **[CT-1]** TCA-10 BOP/ATC starts Standby Liquid Control Pumps to shutdown the reactor within 120 seconds of the time at which the ATWS trip setpoint is reached (RPV pressure of 1127 psig).
- **[CT-2]** Inhibits ADS within 105 seconds of RPV level reaching Level 1 (-145.5" Wide Range).
- **[CT-3]** Terminates and prevents injection from LPCS and LPCI before RPV level reaches Level 1 (-145.5" Wide Range) and pressure lowers below 472psig.
- **[CT-4]** Initiates RCIC injection prior to RPV level reaching -160" (TAF).
- **[CT-5]** If RPV level ≤ TAF and no systems are injecting, initiate ADS per EOP-3 within 17.5 minutes of RPV level reaching -160" (TAF).

Event No.	Malf. No.	Event Type*	Event Description
1	N/A	N-BOP	(NEW) Perform CPS 9051.01 HPCS Pump Operability
2	YP_XMFTB_4104	C-BOP	(NEW) Failure of HPCS Pump Discharge valve (1E22-F301)
3	N/A	R-ATC	Raise Power with rods to 62%
4	ROD0429TFIA3	C-ATC TS-SRO	Rod drifts outward
5	A04_A18_A02_4 Manual A04_A18_A02_7 Press	I-BOP	(NEW) EHC Temperature Controller Failure
6	A11_A05_S40_2 ON A11_A02_07_4_TVM 2 A_11_A08_DS30_1 OFF	TS-SRO	(NEW) Loss of Control Power to Suppression Pool Dump Valve (1SM001A)
7	YAFWPPLB_16	C-ATC	(NEW) TDRFP 'B' High Bearing Temperature
8	YP_XMFTB_5001/3/4 GROUP_1_ISOL_MALF	M-All	(NEW) Inadvertent Group 1 Isolation / Partial ATWS
9	YP_XMFTB_4094 YP_XMFTP_4959	C-All	Trip of MDRFP / RCIC fails to auto start

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor
 NEW – Not used on the previous two (2) NRC exams.