Scenario A

SHIFT TURNOVER SHEET

UNIT 1 PLANT CONDITIONS:

- OPCON 1
- 95% Reactor Power

INOPERABLE / OUT OF SERVICE EQUIPMENT:

- During surveillance testing, I&C has determined that the "A" Chlorine Detector has failed downscale. The required regulatory action (Technical Specification) has not been identified for this failed instrument

ACTIVITIES PLANNED FOR THIS SHIFT:

- Determine required regulatory action for the failed "A" Chlorine Detector

Facility: LGS Scenario No.: A Op-Test No.: _____

Examiners: _____ Operators: _____

Description: This scenario will begin with the CRS required to evaluate Technical Specifications for the failure of a single chlorine detector. The crew will then be requested by the Power System Director to raise reactive load on the generator to 250 MVAR. At approximately 200 MVAR, a loss of isophase bus cooling will occur. The crew is expected to enter and execute ON-101, and will be required to reduce power until generator output current is less than 20,000 amps. During the power reduction, an SRV will fail open. The crew is expected to enter and execute OT-114, and the crew will be required to scram the reactor. The reactor will fail to scram, and the crew must implement T-101 and T-117 to mitigate the ATWS. T-117 will require the crew to intentionally lower level twice (to below –50 inches, and to –161 inches). After the second lowering of level, when the crew has stabilized level in the band of –186 to –161 inches, the scenario may be terminated.

Initial Conditions: 95% Power, OPCON 1, "A" Chlorine Detector is failed downscale

Turnover: 95% power, OPCON 1. During surveillance testing, I&C has determined that the "A" chlorine detector has failed downscale. The required regulatory action (Technical Specification) has not been identified for this failed instrument.

Event No.	Malf. No.	Event Type*	Event Description
1	N/A	N(PRO/ CRS)	Raise Main Generator Reactive Load
2	118 SERVICES, I-5	C(PRO/ CRS)	Loss of Isophase Bus cooling due to loss of power to running fan, and failure of the standby fan
2	N/A	R (ALL)	Power reduction to less than 20,000 amps generator output
3	MAD141C MAD141B	I (ALL)	SRV fails open electrically, and sticks open
4	MRP029C MRP407C	M (ALL)	ATWS (electrical)
4	MSL559	C (SRO/ RO)	Standby Liquid Control Rupture
4	MCR411B	C (ALL)	CRD Flow Control Valve fails closed

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

I. SIMULATOR OPERATOR INSTRUCTIONS

A. INITIAL SIMULATOR SETUP

✓	ITEM / MALFUNCTION / REMOTE FUNCTION / CONDITION
	■ Perform OTM 7.1 Checklist
	■ Reset Simulator to IC-52
	■ Take out of FREEZE and ensure the following: - Reactor power is approximately 95% - "A" chlorine detector is downscale - All other annunciator windows are clear
	■ Load Scenario "2001 LOT NRC Scenario A" from floppy disk labeled "2001 LOT NRC SCENARIOS" using A: drive and ensure the following malfunctions are loaded: • AI78-016A chlorine detector failed downscale (active immediately) • MAD141B, "1E" SRV fails stuck (active immediately) • MSL559, SLC injection line rupture inside the drywell (active immediately) • MRP029C, RPS fails to scram channel "A" (active immediately) • MRP407C, Both RRCS divisions ARI fails to initiate (active immediately) • Annunciator window I-5 on 118 SERVICES (UNIT 1 ISOPHASE BUS COOLER TROUBLE) to "ON" (active three minutes after trigger 1 – generator reactive load output reaches 200 MVAR) • MAD141C, "1E" SRV fails open electrically (active one minute after trigger 2 - main generator current less than 25,000 amps) • MCR411B, Control rod drive flow control valve "B" fails closed (active 10 minutes after trigger 3 – reactor mode switch to shutdown)
	■ Reset any annunciators that should not be present

B. INSTRUCTIONS FOR SIMULATOR OPERATOR

EVENT 1: RAISE MAIN GENERATOR REACTIVE LOAD TO 250 MVAR

✓	MALFUNCTION / REMOTE FUNCTION / REPORT
	■ After the crew takes the shift and determines the Tech. Spec. action for the failed chlorine instrument, provide the crew with a phone call from the Power System Director requesting LGS Unit 1 to raise reactive load output to 250 MVAR. ■ Ensure trigger 1 activates when reactive load is increased above 200 MVAR

EVENT 2: LOSS OF ISOPHASE BUS COOLING / POWER REDUCTION TO LESS THAN 20,000 GENERATOR AMPS

✓	MALFUNCTION / REMOTE FUNCTION / REPORT
	■ If Floor Supervisor/Equipment Operator are contacted, respond 3 minutes later that the running isophase bus cooler fan ("A") has lost power, and the standby fan ("B") has failed to automatically start. You are continuing to attempt to start the "B" fan. ■ If WWM / I&C / Floor Supervisor are contacted for investigation, inform crew a TRT (Troubleshooting, Rework, and Testing) form will be generated and routed to the MCR for approval.

EVENT 3: "1E" SRV FAILS OPEN (ELECTRICALLY), GP-4 (RAPID PLANT SHUTDOWN TO HOT SHUTDOWN)

✓	MALFUNCTION / REMOTE FUNCTION / REPORT
	■ If requested to pull fuses for "1E" SRV per OT-114, wait 7 minutes, then toggle remote function RAD208 to "OUT", then report to the MCR that the fuses have been pulled for the "1E" SRV per OT-114.
	■ Respond as requested to calls for support

EVENT 4: ELECTRICAL ATWS / STANDBY LIQUID CONTROL RUPTURE / CRD FLOW CONTROL VALVE FAILURE

✓	MALFUNCTION / REMOTE FUNCTION / REPORT
	■ If requested to perform the following T-200 procedures, then respond as follows: T-209 – this will not be performed during this scenario T-214 – wait 5 minutes, then report that T-214 has been performed in the AER T-215 – this will not be performed during this scenario T-216 – this will not be performed during this scenario T-221 – wait 11 minutes, then toggle Remote Function RTR051 to BYPASS. Then report to the MCR that T-221 has been completed in the AER. T-270 – wait 6 minutes, then load scenario "T-270 Terminate and Prevent.scn", (located in Ops Training Scenarios, "Remotes" file). After the remote functions are all active, then report to the MCR that T-270 has been completed in the AER.
	■ If requested, after 6 minutes, Reset shunt trips per SE-10-1 by loading scenario "SE-10 Shunt Trip Reset.scn (located in Ops Training Scenarios, "Remotes" file). After the remote functions are all active, then report to the MCR that shunt trip resets have been completed per SE-10-1. Reset RHRSW Radiation Monitor and RE Area Rad Monitors by loading scenario RHRSW and ARM Resets.scn (located in Ops Training Scenarios, "Remotes" file), then report - RHRSW radiation monitors and RE ARMs have been reset.
	■ If WWM / Floor Supervisor / EO contacted to investigate failure Standby Liquid Control failure, wait 5 minutes, then report that there are no indications of a problem at the SLC skid on RE 283 elevation.
	■ If WWM / Floor Supervisor / EO contacted to investigate failure of the "1B" CRD flow control valve, then respond that there is a leak on the air line going into the "1B" CRD flow control valve. ■ If requested to swap to the "1A" CRD flow control valve, then wait 5 more minutes, then toggle remote function RCR020 to "A". Then report to the MCR that the "1A" CRD flow control valve has been placed in service.

Op-Test No. _____ Scenario No. ___A___ Event No.: 1

Event Description:

Raise Main Generator Reactive Load to 250 MVAR

Time	Position	Applicant's Actions or Behavior
	CRS	Evaluate Tech Specs for the failed "A" Chlorine Detector, and determine that the inoperable chlorine detection subsystem must be restored to OPERABLE status within 7 days, or within the next 6 hours, initiate and maintain operation of at least one control room emergency filtration system subsystem in the chlorine isolation mode of operation.
	CRS	Evaluate the "Generator Capabilities at Various Hydrogen Pressures Curve", located in GP-5, Power Operation, to determine that the generator can supply 250 MVAR to the grid
	PRO	Raise generator reactive output to 250 MVAR using the Main Generator Auto Voltage Regulator potentiometer

Op-Test No. _____ Scenario No. A Event No.: 2

Event Description:

Loss of Isophase Bus Cooling

Time	Position	Applicant's Actions or Behavior
	PRO	Respond to Isophase Bus Cooler Trouble alarm
	CRS	Direct floor operators to investigate the Isophase Bus Cooler Trouble alarm
	CRS	Enter ON-101, Loss of Isophase Bus Cooling
	CRS	Direct the PRO to reduce generator reactive output to 0 MVAR
	PRO	Reduce generator reactive load to 0 MVAR using the Main Generator Auto Voltage Regulator potentiometer
	CRS	Direct power reduction to 20,000 generator amps
	RO/PRO	Reduce recirc. MG set speed to lower power to 90% per Reactor Maneuvering Shutdown Instructions
	RO	Insert control rods per RMSI to reduce power to 20,000 amps

Op-Test No. _____ Scenario No. A Event No.: 3

Event Description:

"1E" SRV Fails Open Electrically, OT-114 (Inadvertent Opening of a Relief Valve)

Time	Position	Applicant's Actions or Behavior
	CREW	Recognize and report "1E" SRV has lifted
	RO/PRO	Confirm SRV open using at least two of the following: • Generator load reduction OR bypass valve closure • SRV/HEAD VENT VALVE LEAKING (110 B-1) or SAFETY RELIEF VALVE OPEN (110 B-2) alarms • Relief valve position lights • Steam flow/Feed flow mismatch • Rising suppression pool temperature • Rising tailpipe temperature on XI-36-101(BOP DAS monitor) on 10C614
	CRS	Enter OT-114, Inadvertent Opening of a Relief Valve
	CRS	Direct the PRO to place 2 loops of suppression pool cooling in service
	PRO	Place 2 RHRSW pumps in service (one through each RHR HX)
	PRO	Start the "A" and "B" RHR pumps in the suppression pool cooling mode, establishing 8000-8500 gpm per pump
	CRS	Direct the RO to reduce turbine inlet pressure to 900 psig
	RO	Reduce turbine inlet pressure to 900 psig by reducing EHC pressure setpoint
	CRS	Enter GP-4, Rapid Plant Shutdown to Hot Shutdown
	CRS	Direct fuses for "1E" SRV pulled per OT-114
	CRS	Direct PRO to perform S91.6.B, to transfer house loads to offsite power
	PRO	Transfer house loads per S91.6.B
	CRS	Direct the RO/PRO to reduce recirc. MG set speed to minimum
	RO/PRO	Reduce recirc. MG set speed to minimum
	CRS	Direct the RO to scram the reactor at 50% core flow

Op-Test No. _____ Scenario No. ___A___ Event No.: 3

Event Description:

"1E" SRV Fails Open Electrically, OT-114 (Inadvertent Opening of a Relief Valve)

Time	Position	Applicant's Actions or Behavior
	RO	Manually scram the reactor using the RPS arm and depress pushbuttons
	RO	Recognize and report to the CRS that the reactor failed to scram

Op-Test No. _____ Scenario No. A Event No.: 4

Event Description:

Electrical ATWS / Standby Liquid Control Rupture / CRD Flow Control Valve Failure

Time	Position	Applicant's Actions or Behavior
	CRS	Enter T-101, RPV Control, due to the failure to scram
	CRS	Direct the RO place the reactor mode switch to SHUTDOWN
	RO	Place the reactor mode switch to SHUTDOWN
	CRS	Direct the RO to insert SRMs and IRMs
	RO	Insert SRMs and IRMs
	CRS	Direct the RO to manually initiate RRCS
	RO	Manually initiate RRCS using the arm and depress pushbuttons
	CRS	Direct the performance of T-214, Manual Initiation of ARI
	CRS	Direct trip of both reactor recirculation pumps
	PRO	Trip both reactor recirculation pumps at least 10 seconds apart
	CRS	Direct the RO to manually insert control rods with the RWM bypassed
	RO	Bypass the Rod Worth Minimizer and manually insert control rods
	CRS	Direct the performance of T-215, De-energization of Scram Solenoids, and T-216, Manual Isolation and Vent of Scram Air Header
	CRS	Enter T-117, Level/Power Control
	CRS	Direct inhibiting auto ADS
	PRO	Inhibit auto ADS
	CRS	Direct performance of T-221, Defeat of MSIV/PCIG Isolation
	CRS	Direct terminate and prevent injection per T-270 until RPV level is below –50 inches
	PRO/RO	Perform T-270, Terminate and Prevent Injection to the RPV
	RO	Re-initiate injection to maintain RPV level less than –50 inches
	CRS	Enter T-102, Primary Containment Control when suppression pool

Op-Test No. _____ Scenario No. A Event No.: 4

Event Description:

Electrical ATWS / Standby Liquid Control Rupture / CRD Flow Control Valve Failure

Time	Position	Applicant's Actions or Behavior
		temperature reaches 95° F.
	CREW	Recognize SLC injection line rupture
	CRS	Direct securing all SLC pumps
	RO	Secure all 3 SLC pumps
	CRS	Direct performance of T-209
	RO	Recognize CRD flow control valve failed closed
	CRS	Direct investigation of CRD flow control valve failure, and swap to alternate flow control valve, OR close CRD pressure control valve to re-establish adequate drive water pressure
	CRS	When suppression pool temperature reaches 110° F, direct T-270, Terminate and Prevent Injection into the RPV
	RO/PRO	Perform T-270, Terminate and Prevent Injection into the RPV.
	RO	When re-injection criteria is met, then re-inject to the RPV with feedwater to maintain level between –186 and the level to which it was lowered
	CRS	Enter SE-10, LOCA when LOCA signal occurs (-129 inches)
	PRO	Reset instrument buses following LOCA signal

CRITICAL TASKS

1. Terminate and prevent injection into the RPV per T-270 (RPV level is lowered below –50 inches by terminating and preventing injection into the RPV per T-270)
2. Terminate and prevent injection into the RPV per T-270 (RPV level is intentionally lowered by terminating and preventing injection into the RPV per T-117 step LQ-11, when conditions of step LQ-14 are met)
3. Maintain RPV level between –186 inches and the level to which it was intentionally lowered (RPV level maintained between –240 inches and –50 inches)

TERMINATION POINT

The scenario will be terminated when the following criteria are met:

1. RPV level is being maintained between –186 and the level to which it was lowered.

Scenario C

SHIFT TURNOVER SHEET

UNIT 1 PLANT CONDITIONS:

- OPCON 1
- 100% Reactor Power

INOPERABLE / OUT OF SERVICE EQUIPMENT:

- None

ACTIVITIES PLANNED FOR THIS SHIFT:

- The crew is directed to perform ST-6-071-306-1, Channel A1 and A2 RPS Manual SCRAM Channels Functional Test.

Facility: LGS Scenario No.: C Op-Test No.: _____

Examiners: _____ Operators: _____

Description: This scenario will begin with the crew performing ST-6-071-306-1 (Channel A1 and A2 RPS Manual SCRAM Channels Functional Test). When the "A" RPS channel is de-energized, one control rod will scram, requiring the crew to enter ON-104 (Control Rod Problems). When the crew requests a P-1 edit to check thermal limits, the crew should recognize a thermal limit is exceeding 1.0, requiring entry into GP-14, (Resolution of Thermal Limit Violations). Per ON-104, the crew is required to reduce reactor power to less than 80%. During the power reduction, the "A" channel of the Rod Block Monitor will fail upscale. The CRS must reference Technical Specifications for the failed RBM. A steam leak will then occur in the RCIC room, and the RCIC isolation valves will fail to close. High temperature conditions will spread into the HPCI room, requiring an emergency blowdown per T-112 (Emergency Blowdown). When the crew determines the blowdown is imminent, they should attempt to depressurize the RPV using bypass valves, but the bypass valve jack will not function. The crew may obtain some bypass valve opening by using pressure setpoint adjustment, but this will not enable them to prevent the need for the emergency blowdown.

Initial Conditions: 100% Power, OPCON 1

Turnover: 100% Power, OPCON 1. The crew is directed to perform ST-6-071-306-1, Channel A1 and A2 RPS Manual SCRAM Channels Functional Test

Event No.	Malf. No.	Event Type*	Event Description
1	N/A	N(ALL)	RPS Surveillance Test
2	MRD016F SIMINS MFLCPR 1.012	C (ALL)	Rod Scrams during RPS Test, Thermal Limit MFLCPR > 1
2	N/A	R (ALL)	Power Reduction to < 80%
3	MPR217A	I (ALL)	RBM Channel "A" Fails to 125% (Tech Spec)
4	MRC465	M (ALL)	Steam Line Break in RCIC Room
4	MRC464A MRC464B	C (PRO/ CRS)	RCIC Isolation Valves Fail to Close
4	RRE002	C (ALL)	Steam Leak Migrates into the HPCI Room Through Broken Door Seal

4	CP436-1 failed to ALLOFF	I (PRO/ CRS)	EHC System Logic Failure Prevents Bypass Valve Operation with Bypass Valve Jack Pushbutton
5	MAD144D	C (RO/ PRO/ CRS	"H" SRV Fails to Open

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor

I. SIMULATOR OPERATOR INSTRUCTIONS

A. INITIAL SIMULATOR SETUP

✓	ITEM / MALFUNCTION / REMOTE FUNCTION / CONDITION
	■ Perform OTM 7.1 Checklist
	■ Reset Simulator to IC-54
	■ Take out of FREEZE and ensure the following: - Reactor power is approximately 100% - All other annunciator windows are clear - Ensure sign below full core display indicates this is an "A/A1 Test Day"
	■ Load Scenario "2001 LOT NRC Scenario C" from floppy disk labeled "2001 LOT NRC SCENARIOS" using A: drive and ensure the following malfunctions are loaded: • MRC464A, RCIC Steam Isolation Valve HV49-1F007 Fails as is (active immediately) • MRC464B, RCIC Steam Isolation Valve HV49-1F008 Fails as is (active immediately) • MAD144D, Relief Valve (F013H) fails closed (active immediately) • RRE002, Reactor Enclosure Door 19, HPCI to RCIC toggled to "OPEN" (active immediately) • EHC Bypass Jack INCREASE pushbutton failed to "ALLOFF" (active immediately) • MRD016F (26-31) Control Rod Scrams (active when A1 RPS pushbutton depressed) • MPR217A, RBM Channel "A" Fails to 125% (active when control rod 22-07 is selected) • MRC465, RCIC Steam Line Break Inside the Pump Room - 50% (active 6 minutes after control rod 22-07 is selected, with a ramp time of 10 minutes up to 50% leak rate) • **<u>IMPORTANT NOTE</u>: When rod 26-31 scrams, THEN insert MFLCPR value of 1.012 using SIMINS page of Plant Monitoring System at Instructor Station. When reactor power is reduced to less than 90%, then return MFLCPR to a value of 0.937.**
	■ Reset any annunciators that should not be present

B. INSTRUCTIONS FOR SIMULATOR OPERATOR

EVENT 1: PERFORM ST-6-071-306-1, CHANNEL A1 AND A2 RPS MANUAL SCRAM CHANNELS FUNCTIONAL TEST

✓	MALFUNCTION / REMOTE FUNCTION / REPORT
	■ When requested, inform the MCR that RPS lights "A1 DS1" and "A2 DS2" are lit at 10C609. ■ Ensure trigger 1 activates when the A1 RPS pushbutton is depressed

EVENT 2: ROD SCRAMS DURING RPS TESTING WITH THERMAL LIMIT MFLCPR > 1

✓	MALFUNCTION / REMOTE FUNCTION / REPORT
	■ **When rod 26-31 scrams, THEN insert MFLCPR value of 1.012 using SIMINS page of Plant Monitoring System at Instructor Station. When reactor power is reduced to less than 90%, then return MFLCPR to a value of 0.937.** ■ If Reactor Engineering contacted, ask which control rod scrammed, then tell them you will begin investigating immediately. ■ If Floor Supervisor / Equipment Operator requested to investigate the scrammed control rod, wait 6 minutes, then respond that the fuse for the "B" scram pilot solenoid has blown for HCU 26-31. ■ Respond as requested to calls for support

EVENT 3: RBM CHANNEL "A" FAILS TO 125%

✓	MALFUNCTION / REMOTE FUNCTION / REPORT
	■ If WWM / I&C / Floor Supervisor are contacted for investigation, inform crew a TRT (Troubleshooting, Rework, and Testing) form will be generated and routed to the MCR for approval.
	■ Respond as requested to calls for support

EVENT 4: STEAM LINE BREAK IN THE RCIC ROOM / RCIC ISOLATION VALVES FAIL TO CLOSE / HPCI-TO-RCIC DOOR SEALS FAIL

✓	MALFUNCTION / REMOTE FUNCTION / REPORT
	■ If requested to investigate 1AC208 HVAC PNL TROUBLE alarm, wait 4 minutes, then respond with temperature indication given on the instructor station T-103 icon, Temperature Display indication for the RCIC room. ■ If requested to perform T-290, wait 5 minutes, then respond by providing Reactor Enclosure data by selecting T-103 icon on simulator instructor station, and selecting T-103 Radiation Display and T-103 Temperature Display.
	■ If requested to manually attempt to actuate the contactors for the RCIC isolation valves, after 6 minutes, Report that efforts to close the RCIC isolation valves manually have been unsuccessful from the breakers.
	■ Respond as requested to calls for support

EVENT 5: "H" SRV FAILS TO OPEN

✓	MALFUNCTION / REMOTE FUNCTION / REPORT
	■ Respond as requested to calls for support

Op-Test No. _____ Scenario No. C Event No.: 1

Event Description:

Perform ST-6-071-306-1, Channel A1 and A2 RPS Manual Scram Channels Functional Test

Time	Position	Applicant's Actions or Behavior
	CRS	Direct the RO to perform ST-6-071-306-1
	RO	Perform ST-6-071-306-1
	PRO	Peer check the RO's performance of ST-6-071-306-1

Op-Test No. _____ Scenario No. C Event No.: 2

Event Description:

Rod Scrams During RPS Testing with Thermal Limit MFLCPR > 1

Time	Position	Applicant's Actions or Behavior
	RO/PRO	Recognize control rod 26-31 has scrammed when the "A" RPS channel is de-energized, and report the rod scram to the CRS
	CRS	Enter ON-104, Control Rod Problems
	CRS	Perform ON-104, Attachment 3
	CRS	Direct the RO to generate a P-1 edit
	RO	Order a P-1 edit, and determine that MFLCPR is greater than 1
	CRS	Order power reduction to less than 80% per RMSI
	RO/PRO	Reduce recirc. MG set speed to lower power to 90% per RMSI
	RO	Insert control rods per RMSI to reduce power to < 80%
	CRS	Enter GP-14, Resolution of Thermal Limit Violations
	CRS	Contact Reactor Engineering for assistance

Op-Test No. _____ Scenario No. C Event No.: 3

Event Description:

Rod Block Monitor Channel "A" Fails to 125%

Time	Position	Applicant's Actions or Behavior
	RO	Recognize and report "A" RBM has failed upscale
	RO/PRO	Reference ARC for "A" RBM upscale alarm
	CRS	Reference Technical Specifications for failed RBM channel
	CRS	Recognize that RBM is required to be operable with power less than 90% and MCPR less than 1.7
	CRS	Recognize operating on a LIMITING CONTROL ROD PATTERN, and recognize requirement per Tech Spec action to place the inoperable rod block monitor in the tripped condition within 1 hour.

Op-Test No. _____ Scenario No. C Event No.: 4

Event Description:

Steam Line Break in the RCIC Room / RCIC Isolation Valves Fail to Close / RCIC-to-HPCI Door Seals Fail / EHC System Logic Failure Affecting Bypass Valves

Time	Position	Applicant's Actions or Behavior
	PRO	Recognize and report fire alarms in RCIC
	CRS	Enter SE-8, Fire
	PRO	Announce fire location over plant page, and dispatch Fire Brigade
	PRO	Recognize and report REAC ENCL HVAC PNL 1AC208 TROUBLE alarm
	PRO	Dispatch an Equipment Operator to investigate REAC ENCL HVAC PNL 1AC208 TROUBLE alarm locally
	RO	Recognize and report DIV 1 STEAM LEAK DET SYS HI TEMP / TROUBLE alarm
	CRS	Enter T-103, Secondary Containment Control
	CRS	Direct RO and PRO to read RPV pressure and RPV level only from PAMS, Fuel Zone Level, EQ PMS parameters
	CRS	Direct performance of T-290, Instrumentation Available for T-103/SAMP-2
	CRS	When RCIC temperature is above Maximum Normal Operating (MNO), **114 deg. F**, then direct PRO to attempt to manually isolate RCIC per T-250
	PRO	Report RCIC isolation failure to CRS
	CRS	When report received of RCIC room temperature above Maximum Safe Operating (MSO), **155 deg. F**, then recognize plant shutdown is required
	CRS	Direct PRO to perform S91.6.B, to transfer house loads to offsite power
	PRO	Transfer house loads per S91.6.B
	CRS	Direct the RO/PRO to reduce recirc. MG set speed to minimum
	RO/PRO	Reduce recirc. MG set speed to minimum
	CRS	Direct the RO to scram the reactor at 50% core flow

Op-Test No. _____ Scenario No. C Event No.: 4

Event Description:

Steam Line Break in the RCIC Room / RCIC Isolation Valves Fail to Close / RCIC-to-HPCI Door Seals Fail / EHC System Logic Failure Affecting Bypass Valves

Time	Position	Applicant's Actions or Behavior
	RO	Manually scram the reactor using the RPS arm and depress pushbuttons
	CRS	Enter T-101, RPV Control
	CRS	Direct RO to place reactor mode switch in SHUTDOWN
	RO	Place reactor mode switch in SHUTDOWN
	CREW	Recognize and communicate to CRS all rods are in
	CRS	Direct RO to insert SRMs and IRMs
	RO	Insert SRMs and IRMs
	CRS	Direct RO to maintain RPV level between 12.5 and 54 inches
	RO	Control feedwater / condensate injection to establish and maintain RPV level between 12.5 and 54 inches
	CRS	Direct Floor Supervisor / Equipment Operator to attempt to close RCIC isolation valves locally
	CRS	Perform T-291, Temperature Effects on Reactor Level Instrumentation
	CRS	Re-enter T-103 when DIV 3(2,4) STEAM LEAK DET SYS HI TEMP / TROUBLE alarms annunciate
	CRS	Recognize HPCI room temp approaching MSO value of **176 deg. F**, determine blowdown imminent, and order rapid depressurization using turbine bypass valves, per T-101 step RC/P-6.
	RO/PRO	Use EHC Bypass Valve Jack INCREASE pushbutton to attempt to open turbine bypass valves
	RO/PRO	Recognize failure of turbine bypass valves to open using Bypass Valve Jack INCREASE pushbutton, and report to the CRS
	CRS	When HPCI room temperature exceeds MSO, then enter T-112, Emergency Blowdown
	CRS	Direct the RO/PRO to open 5 ADS valves
	RO/PRO	Place 5 ADS valve handswitches to open

Op-Test No. _____ Scenario No. C Event No.: 5

Event Description:

"1H" SRV Fails to Open

Time	Position	Applicant's Actions or Behavior
	RO/PRO	Recognize failure of "1H" SRV to open, and report to the CRS
	CRS	Direct the RO/PRO to open another SRV
	RO/PRO	Open another SRV until a total of 5 ADS/SRVs are open

CRITICAL TASKS

1. Direct the performance of T-290, Instrumentation Available for T-103/SAMP-2. (Direct the performance of T-290 to operations personnel located outside the control room)
2. Manually scram the reactor. (When it has been determined that one area in Table SCC-2 has exceeded max. safe op. value, manually scram the reactor)
3. Perform Emergency Blowdown per T-112. (After it is determined that two areas in Table SCC-2 have exceeded max. safe op. values and a primary system is still discharging into secondary containment, open 5 ADS/SRVs)

TERMINATION POINT

The scenario will be terminated when the following criteria are met:

1. An emergency blowdown has been performed per T-112, Emergency Blowdown, and RPV level is within the band of 12.5 to 54 inches.