Facility: Fermi 2 **Scenario No.** 1 **Op-Test No:** 2015-1

Examiners: [redacted] **Operators:** SRO-U 1 (CRS)
RO 1 (ATC)
RO 2 (BOP)

Initial Conditions: 89% Rx. Power

Turnover: The plant is currently operating at 89% power following a power reduction for replacement of the #3 LPSV Unitized Actuator. B CRD Pump is out of service for pump rebuild. Expected return to service is 4 days. Center SAC is NON-PREFERRED USE due to oil leaks on the Compressor. Plans for the crew are to shift GSW pumps to start #6 GSW and shutdown #2 GSW to repair leaks on the discharge strainer. After the pump shift, the crew is to raise power with recirc flow to 95% and hold to validate Power vs Steam Flow per GOP 22.000.03.

NOTE: The crew's Pre-job Briefing for the reactor power increase is to be conducted prior to entering the simulator. (Suggested time 30 minutes prior to beginning the scenario.)

Event No.	Malf. No.	Event Type*	Event Description
1	NA	N(BOP) N(SRO)	BOP transfers GSW Pumps per 23.131 section 4.3. Start #6 GSW and shutdown #2 GSW
2	NA	R(ATC) R(SRO)	ATC Raises Recirculation Flow to raise Power to 95% per 22.000.03
3	C32MF0027	I(ATC) I(SRO)	"A" FW Flow Instrument Failure. ATC shifts to Single Element
4	E41RF0008	I(SRO) I(BOP)	CST Level Low Instrument Failure, Evaluates TS 3.3.5.1 ECCS Instrumentation and TS 3.3.5.2 RCIC System Instrumentation.
5	T41MF0002	C(BOP) C(SRO)	D1 CCHVAC Return Fan Trip – AOP 20.413.01 entered – SRO enters TS LCO 3.7.3, 3.7.4 – BOP starts D2 CCHVAC
6	P50MF0014 P50MF0017	C(BOP) C(SRO)	West Station Air Compressor unloads. East Compressor trips on Auto Start. AOP 20.129.01 entered. BOP manually starts Center Station Air Compressor.
7	B31MF0066	M(ALL)	Small recirculation loop leak in Drywell. ATC places Mode switch in SHUTDOWN due to rising Drywell Pressure. EOP 29.100.01 Sheet 1 and 2 entered
8	C11MF0001 C71MF0006	M(ALL)	Failure to Scram (ATWS). Rods Stuck and RPS Total Scram Failure. EOP 29.100.01 Sheet 1A entered. BOP inhibits ADS (**CT**). ATC performs FSQ 1 thru 8. SRO directs 29.ESP11.
9	C41MF0003 C41MF0004	C(ATC) C(SRO)	SRO directs SLC injection. ATC Injects SLC. First Pump started immediately trips. Second pump started runs. (**CT**)
10	EOPRF0011 thru EOPRF0014	ALL	SRO directs 29.ESP.03. ATC manually inserts Control Rods per 29.ESP.03 (**CT**) SRO directs 29.ESP.10. ATC resets ARI to perform scram-reset-scram per 29.ESP.03. All rods insert when ARI is re-initiated multiple times (twice).

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

Facility: Fermi 2 **Scenario No.** 1 **Op-Test No:** 2015-1

Examiners: [redacted] **Operators:** SRO-U 1 (CRS)
RO 1 (ATC)
RO 2 (BOP)

Initial Conditions: 89% Rx. Power

NOTE: Continued from page 1

Event No.	Malf. No.	Event Type*	Event Description
11	EOPRF0007 EOPRF0010	ALL	SRO directs Terminate and Prevent. BOP performs Terminate and Prevent for Level to lower RPV level <114 inches. Maintain RPV level 50 to 100 inches (**CT**).
12	E51MF0002	C(BOP) C(SRO)	RCIC isolates on high exhaust diaphragm pressure. BOP utilizes alternate systems to maintain level.
13	EABQFU_TR 1CC	C(BOP) C(SRO)	BOP initiates Torus Cooling/Torus Sprays. BOP initiates Drywell Sprays. (**CT**) E1150-F028A fails during Torus Cooling Lineup BOP utilizes Division 2 for Containment Cooling

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

Facility: Fermi 2 **Scenario No.** 2 **Op-Test No:** 2015-1

Examiners: [redacted] **Operators:** SRO-U 2 (CRS)
RO 2 (ATC)
RO 1 (BOP)

Initial Conditions: 55% Reactor Power

Turnover: The plant is currently operating at 55% power during a plant startup (GOP 22.000.03, step 4.2.14). # 6 GSW Pump is out of service for motor replacement with expected return to service in 4 days. Plans for the shift are to raise reactor power to 60%, place the second Reactor Feed Pump (RFP) in service, and continue the plant startup.

NOTE: The crew's Pre-job Briefing for the reactor power increase and placing the second RFP in service is to be conducted prior to entering the simulator. (Suggested time ~30 minutes prior to beginning the scenario.)

Event No.	Malf. No.	Event Type*	Event Description
1	NA	R(ATC) R(SRO)	ATC raises reactor power to 60% using control rods per 22.000.03 and Post-LPSP pull sheets.
2	NA	N(BOP) N(SRO)	BOP places the second RFP in service per 23.107, section 5.9.
3	C97MF1087	NA	Seismic Event at 0.02g Horizontal and Vertical. AOP 20.000.01 entry.
4	C11MF0561	C(ATC) C(SRO)	CR 30-31 Drifts out of Core. SRO enters AOP 20.106.07. Control Rod fully inserted and disarmed. SRO enters TS LCO 3.1.3.
5	NIXAP804_A 180NOISE	C(BOP) C(SRO)	South Seal Oil Pump high amps. BOP starts standby pump and trips effected pump.
6	P43MF0025	C(BOP) C(SRO)	Trip of N TBCCW Pump. AOP 20.128.01 entered. BOP start standby pump.
7	C51MF0001	I(ATC) I(SRO)	APRM 1 Downscale. ATC bypasses APRM 1. SRO enters TS LCO 3.3.1.1 Tracking LCO
8	C97MF1087	NA	Aftershock - Seismic Event at 0.04g Horizontal and Vertical. AOP 20.000.01 entered.
9	B31MF0064 B31MF0065 B31MF0066	M(ALL)	B RR Pump Lower Seal Failure, followed by B RR Pump Upper Seal Failure. Crew identifies slowly rising Drywell Pressure.
10	NA	ALL	ATC places Mode Switch in SHUTDOWN due to rising Drywell Pressure. SRO enters EOP 29.100.01 Sheet 1 and 2. BOP maintains RPV level and pressure. ATC starts Torus Cooling/Torus Spray. ATC starts Drywell Spray. **(CT)**
11	B21MF0060 B21MF0059 B21MF0073	M(ALL)	All RPV Level Instrumentation Fails. Crew identifies Loss of RPV level indication. SRO enters 29.100.01 Sheet 3. BOP depressurizes RPV and Crew floods RPV to the Main Steam Lines. **(CT)**

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