

Facility: Nine Mile Point Unit 2

Scenario No.: NRC-1

Op-Test No.: LC2 16-1

Examiners: _____ Operators: _____

Initial Conditions: The plant is operating at approximately 4.5% power with a reactor startup in progress. Narrow range 'C' level transmitter has failed high and CRD-P1B is out of service due to high pump vibrations.

Turnover: Continue reactor startup and raise power to 8%

Critical Tasks: See page 2

Event No.	Malf. No.	Event Type*	Event Description
1	N/A	R-ATC, SRO	Continue the reactor startup by withdrawing rods per N2-OP-101A. N2-OP-101A
2	RD07	C-ATC, SRO	Stuck Control Rod N2-OP-30
3	NM06	I-ATC, SRO TS-SRO	IRM D Fails Upscale ARP's, N2-OP-97, T.S. 3.3.1.1
4	RC10	C-BOP, SRO TS-SRO	Inadvertent Initiation of RCIC ARP's, T.S. 3.5.3
5	IA02A IA04A IA04B	C-BOP, SRO	Trip of Instrument Air Compressor A N2-SOP-19
6	RH13A RH15	C-BOP, SRO TS-SRO	Inadvertent initiation of Division 1 ECCS systems with minimum flow valve failure. N2-OP-31, T.S. 3.5.1, T.S. 3.6.1.6, T.S. 3.6.2.3, T.S. 3.6.2.4
7	MT01 FW08	C-ATC, SRO	Seismic Event causes FWLC failure. N2-SOP-90, N2-SOP-6
8	RC12	M (All)	RCIC Steam Leak in Reactor Building N2-EOP-RPV, N2-EOP-SC
9	Overrides	C-BOP, SRO	RCIC Isolation valves fail to close leading to degrading Secondary Containment conditions. N2-EOP-SC, N2-EOP-C2
* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor			

Appendix D**Scenario Outline****Form ES-D-1**Facility: Nine Mile Point Unit 2

Scenario No.: NRC-2

Op-Test No.: LC2 16-1Examiners: _____ Operators: _____

Initial Conditions: The plant is operating at approximately 92% power. It is required to perform a Live Bus Transfer of 2NNS-SWG013 to 2NNS-SWG012. 2IAS-C3C, Instrument air compressor 3C is out of service.

Turnover: Perform a Live Bus Transfer of 2NNS-SWG013 to 2NNS-SWG012.

Critical Tasks: See page 2

Event No.	Malf. No.	Event Type*	Event Description
1	N/A	N-BOP, SRO	Live Bus Transfer of 2NNS-SWG013 to 2NNS-SWG012. N2-OP-71B
2	N/A	R-ATC, SRO	Raise reactor power to 98%. N2-OP-101D
3	RR52A	C-ATC, SRO, TS-SRO	'A' RCS FCV fails open. N2-SOP-08, N2-SOP-101D, ARP's, T.S. 3.4.1
4	MS20A	C-BOP, SRO	Gland seal exhaust fan TME-FN1A trip. N2-OP-25
5	ED04D	C-All, TS-SRO	Loss of NNS-SWG014 switchgear. Restore CRD, and other lost loads with HCU accumulator trouble. N2-SOP-03, SOP-30, SOP-68, SOP-19, SOP-97, T.S. 3.1.5
6	Overrides MS13	M-All	EHC Regulator slow failure causes Reactor Pressure to lower, crew must scram and shut MSIV's. N2-SOP-23, N2-SOP-101C, N2-EOP-RPV
7	ED02A & B DG04B	C-All	Loss of all offsite power with Div II EDG failing to start. Crew will manually start Div II EDG. N2-SOP-03
8	RR20	M-All	LOCA in Drywell. N2-EOP-RPV, N2-EOP-PC

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

Appendix D
Scenario Outline
Form ES-D-1

 Facility: Nine Mile Point Unit 2

Scenario No.: NRC-3

 Op-Test No.: LC2 16-1

 Examiners: _____ Operators: _____

Initial Conditions: The plant is operating at 100% power. It is required to complete N2-OSP-EGS-M@001 for Division I EDG. 2TMB-P1B, EHC Fluid Pump 1B is out of service for maintenance.

Turnover: Complete N2-OSP-EGS-M@001 for Division I EDG. Next step to be performed is 8.2.22.

Critical Tasks: See page 2

Event No.	Malfunction No.	Event Type*	Event Description
1	N/A	N-BOP, SRO	Complete N2-OSP-EGS-M@001 for Division I EDG. N2-OSP-EGS-M@001
2	DG02A	TS-SRO	Division I EDG lockout trip. T.S. 3.8.1.B
3	RR08B	I-ATC, SRO, TS-SRO	Loss of recirculation flow input to APRM #2. ARP's, T.S. 3.3.1.1
4	RD09-10-31	R-ATC, SRO, TS-SRO	Control rod 10-31 scram. N2-SOP-08, N2-SOP-101D, T.S. 3.1.3
5	CW14	C-BOP, SRO	RBCLC TCV fails causing a reduction in cooling. N2-SOP-13
6	FW36B FW03B	C-BOP, ATC, SRO	Feed pump trip causes recirculation flow control valve runback. N2-SOP-06, N2-SOP-29
7	RD09	C-ATC SRO	Two additional control rods scram, manual scram required. N2-SOP-08, N2-SOP-101C, N2-EOP-RPV
8	RD17Z TC15	M-All	ATWS with a loss of EHC pumps resulting in heat addition to Suppression Pool. N2-EOP-PC, N2-EOP-C5
9	SL03	C-All	RRCS 98 Second Timer Failure. N2-EOP-6.13

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

Appendix D**Scenario Outline****Form ES-D-1**Facility: Nine Mile Point Unit 2

Scenario No.: NRC-4

Op-Test No.: LC2 16-1Examiners: _____ Operators: _____

Initial Conditions: The plant is operating at 100% power. HPCS is out of service for pump seal replacement.

Turnover: HPCS is out of service for pump seal replacement. Perform 2ISC*RV33A Exercise and Position Indication Test per N2-OSP-ISC-M@002, section 8.2 only.

Critical Tasks: See page 2

Event No.	Malfunction No.	Event Type*	Event Description
1	N/A	N-BOP, SRO	Perform 2ISC*RV33A Exercise and Position Indication Test. N2-OSP-ISC-M@002
2	RR43A	I-ATC, SRO	FWLC Steam Flow Instrument Fails Downscale. N2-SOP-6
3	RC01 (Remote)	C-BOP, TS-SRO	RCIC Turbine Trip Throttle valve trip and reset. ARP's, N2-OP-35, T.S. 3.5.1, 3.5.3
4	RD12A	C-ATC SRO	CRD Pump Trip P1A on Motor Electrical Fault. N2-SOP-30
5	OVR-13S02DI 2014	R-ATC, SRO C-BOP TS-SRO	Inadvertent ADS SRV opening which can be closed. N2-SOP-34, 101D, T.S. 3.5.1, 3.6.2.1
6	RR20	M-All	LOCA with degraded high pressure injection systems. RPV blowdown. Restore and maintain RPV water level above the MSCRWL with low pressure injection sources. N2-EOP-RPV, N2-EOP-PC, N2-EOP-C2
7	RH14A	I-All	Division I LP ECCS fails to automatically initiate. N2-EOP-RPV
8	AD08F	C-All	ADS SRV (2MSS*PSV130) fails to open requiring the crew to open an additional non-ADS SRV to achieve a total of 7 SRV's open. N2-EOP-C2
* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor			

Facility: Nine Mile Point Unit 2Date of Examination: December 2017Examination Level: ROOperating Test Number: LC2 16-1

Administrative Topic (see Note)	Type Code*	Describe activity to be performed
Conduct of Operations	D, S	Perform an APRM Gain Adjust N2-OSP-NMS-@004 KA 2.1.31 (4.6)
Conduct of Operations	D, R	Determine Operator Overtime Availability LS-AA-119, KA 2.1.5 (3.9)
Equipment Control	N, R	Develop a clearance boundary for a Standby Liquid Control Pump OP-CE-109-101 KA 2.2.13 (4.1)
Radiation Control		
Emergency Procedures/Plan	D, S	Perform RO Actions for an Injured and Contaminated Person OP-NM-106-300 KA 2.4.12 (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, (S)imulator, or Class(R)oom (D)irect from bank (≤ 3 for ROs; ≤ 4 for SROs & RO retakes) (N)ew or (M)odified from bank (≥ 1) (P)revious 2 exams (≤ 1 ; randomly selected)		

Facility: Nine Mile Point Unit 2Date of Examination: December 2017Examination Level: SROOperating Test Number: LC2 16-1

Administrative Topic (see Note)	Type Code*	Describe activity to be performed
Conduct of Operations	D, R	Single Loop Thermal Limit Review Technical Specifications, KA 2.1.7 (4.7)
Conduct of Operations	D, R	Determine Operator Overtime Availability LS-AA-119, KA 2.1.5 (3.9)
Equipment Control	N, R	Review a clearance boundary for a Standby Liquid Control Pump and determine Technical Specification impact. OP-CE-109-101, K/A 2.2.13 (4.3)
Radiation Control	D, R	Offsite Dose Calculation Manual (ODCM) Assessment for Inoperable Equipment N2-OP-42, ODCM, KA 2.3.15 (3.1)
Emergency Procedures/Plan	D, R	Determine NRC and On-Site Notification Requirements EPIP-EPP-02-EAL, LS-AA-1400, OP-AA-106-101, KA 2.4.30 (4.1)
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 (≤ 3 for ROs; ≤ 4 for SROs & RO retakes) (N)ew or (M)odified from bank (≥ 1) (P)revious 2 exams (≤ 1 ; randomly selected)		

Facility: Nine Mile Point Unit 2Date of Examination: December 2017Exam Level: RO/SRO-IOperating Test No.: LC2 16-1 NRC

Control Room Systems* (8 for RO); (7 for SRO-I)

System / JPM Title	Type Code*	Safety Function
a. Swap Mechanical Vacuum Pumps K/A 256000 A4.13 (3.3/3.4) N2-OP-9	N,L,S	2
b. Place SWP*RE23A in service K/A 272000 A4.02 (3.0/3.0) N2-OP-79	N,S	9
c. Depressurizing the RPV to the Main Condenser. (Alternate Path) K/A 239001 A4.09 (3.9/3.9) N2-EOP-6.18	A,D,L,S	3
d. HPCS Pump Run Following Maintenance. (Alternate Path) K/A 209002 A4.01 (3.7/3.7) N2-OP-33	A,N,S	4
e. Determine containment water level. K/A 295029 EA2.03 (3.4/3.5) N2-EOP-6.23	D,L,S	5
f. Transfer House Loads from Normal Station Service to the Reserve Station Transformers. K/A 262001 A4.01 (3.4/3.7) N2-OP-71A	D,S	6
g. Manual Actions for Group 8 Isolation Failure on Valid RPS Signal. (Alternate Path) K/A 212000 A2.09 (4.1/4.3) N2-SOP-83	A,D,EN,S	7
h. Restore 2SWP*MOV50B from Inadvertent Closure (RO Only) K/A 400000 A4.01 (3.1/3.0) N2-SOP-11	D,P,S (NRC 2014)	8

In-Plant Systems* (3 for RO); (3 for SRO-I)

i. Place Battery Charger 2BYS-CHGR1A1 in service. (Alternate Path) K/A 263000 A1.01 (2.5/2.8) N2-OP-73A	A,D	6
j. Diesel Fire Pump Local Start (Alternate Path) K/A 286000 A4.06 (3.4/3.4) N2-OP-43	A,D	8
k. Inject boron with hydro pump. K/A 295037 EA1.10 (3.7/3.9) N2-EOP-6.15	D,E,R	1

* All RO and SRO-I control room (and in-plant) systems must be different and serve different safety functions; all 5 SRO-U systems must serve different safety functions; in-plant systems and functions may overlap those tested in the control room.