Form 3.3-1 Scenario Outline

Facility:	DC COOK 1 & 2	Scenario #:	NRC2022-1
Scenario Source:	New	Op. Test #:	Cook 2022
Examiners:		Applicants/ Operators:	

Initial Conditions: 100% Power

Turnover: The plant is at 100% power and the crew is directed to maintain power at 100% and swap Stator Cooling Water Pumps for maintenance when clearance is ready.

Critical Tasks**:
1. Manually trip the reactor
2. Energize at least one AC emergency Bus

Event No.	Malf. No.	Event Type*	Event Description**
1	U2_QLC451	I-RO	QLC-451, VCT Level Transmitter, fails Low
2	U2_FFC210	I-BOP MC-BOP TS	FFC-210, Feed Water Flow Instrument, SG #21 Channel 1, fails High
3	U2_NFP210	TS	RCS Flow Instrument fails low
4		N-BOP	Swap Stator Cooling Water Pumps
5	U2_TP03	C-BOP R-RO MC-RO	Stator Water Cooling leak Perform 2%/min Rapid Power Reduction Control VCT level in manual
6	U2_NPP151 U2_RP16A	I-RO	Pressurizer pressure controlling channel fails high with mechanical failure of one spray valve open (EOP entry)
7	U2_RCO1A U2_101TD6 U2_101TA4	M-CREW C-CREW	LBLOCA following Rx trip RHR Pumps Auto Start failure Transfer to Cold Leg Recirculation

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor, (TS)Tech Spec, (MC)Manual Control

** Details on subsequent pages

Form 3.3-1 Scenario Outline

Facility:	DC COOK 1 & 2	Scenario #:	NRC2022-2
Scenario Source:	New	Op. Test #:	Cook 2022
Examiners:		Applicants/ Operators:	

Initial Conditions: 100% Power, breaker T21C3 is OOS due to control power failure, T.S. 3.8.1.B in effect.

Turnover: As part of Post Maintenance testing for breaker T21C3, DG2CD output breaker to Bus T21C, start DG2CD per marked up copy of 2-OHP-4021-032-001CD, run loaded on Bus T21C at 900-1100 KW, then shut down the DG per the NOP.

Critical Tasks**:
1. Manually trip the reactor
2. Energize at least one AC emergency Bus

Event No.	Malf. No.	Event Type*	Event Description**
1		N-BOP	Perform DG2CD start per NOP
2	U2_EG14O ZGI101WMO726_U2 ZGI101WMO728_U2	C-BOP TS	Failure of DG2CD ESW Supply
3	U2_RD07H	C-US R-RO MC-RO	Uncontrolled automatic Control Rod Insertion Restore control rod position
4	U2_NLP151	I-RO MC-RO TS	Controlling Pressurizer Level Channel fails High
5	U2_SW09	C-BOP TS	Loss of Containment Cooling
6	RP01A RP01B U2_RCP1	C-RO	21 RCP Trip with Automatic Reactor Trip Failure (EOP entry)
7	U2_ED05E U12_ED25B U12_ED25C	M-CREW	Loss of Bus T21A/Loss of Offsite Reserve Power

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor, (TS)Tech Spec, (MC)Manual Control

** Details on subsequent pages

Form 3.3-1 Scenario Outline

Facility:	DC COOK 1 & 2	Scenario #:	NRC2022-3
Scenario Source:	New	Op. Test #:	Cook 2022
Examiners:		Applicants/ Operators:	

Initial Conditions: 100% Power

Turnover: After crew turnover, swap NESW pumps and place the currently running pump in standby mode. After NESW pumps are swapped, reduce load to 95% in preparation for turbine valve testing.

Critical Tasks**:
1. Isolate ruptured SG
2. Control initial RCS cool down
3. Depressurize RCS to E-3 SI Termination criteria
4. Terminate ECCS flow

Event No.	Malf. No.	Event Type*	Event Description**
1		N-BOP	Start South NESW Pump and Stop the North NESW pump.
2		R-RO	Commence power reduction to 95%
3	U1_NPP151	I-RO MC-RO TS	Pressurizer Pressure Channel Fails Low
4	U2_101GLC2	C-BOP M-BOP	Bus Duct Cooling Fan Failure with failure of the standby fan to auto start
5	U2_SW07A	C-BOP MC-BOP	Main Turbine Oil Temperature Controller Failure
6	U2_RC23B @1%	C-RO TS MC-RO	SG Tube Leak
7	U2_RC23B ZGI43SDI_U2 U2_RC15A	M-CREW C-CREW C-CREW	Steam Generator Tube Rupture (EOP entry) Steam Dump System failure Pressurizer spray valve NRV-163 fails open during RCS depressurization

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor, (TS)Tech Spec, (MC)Manual Control

** Details on subsequent pages

Form 3.3-1 Scenario Outline

Facility:	DC COOK 1 & 2	Scenario #:	NRC2022-4
Scenario Source:	New	Op. Test #:	Cook 2022
Examiners:		Applicants/ Operators:	

Initial Conditions: 80% power. The South Condensate Booster Pump is running with slightly elevated temperatures.

Turnover: After turnover, shift the Condensate Booster Pumps to the Middle Pump in service and the South Pump in standby. Then, continue power increase to 100% power.

Critical Tasks**:
1. Isolate Main Turbine from SGs during ATWS.
2. Start AFW Pumps during ATWS.

Event No.	Malf. No.	Event Type*	Event Description**
1		N-BOP	Shift Condensate Booster Pumps
2		R-RO	Raise reactor power
3	U2_QFI200	I-RO MC-RO	Charging Flow Instrument QFI-200 fails low
4	U2_ECC short U2_CC02B	C-BOP M-BOP TS	Running CCW pump failure, CCW pump Auto start fails
5	U2_QLC452	I-RO	VCT Level channel 2-QLC-452 Fails High
6	U2_BLP141	I-BOP MC-BOP TS	Controlling SG Level Channel fails high
7	U2_RP12A U2_RP12B U2_RP03A U2_RP03B	M-CREW	Inadvertent SI/Loss of Feed ATWS (EOP entry)
	U2_TC02 U2_RP07A U2_RP07B	C-CREW	Auto & Manual turbine trip failure Auto Main Steam Isolation failure
	U2_FW48A U2_FW48B U2_FW48C	C-CREW	AFWP auto start failures
8			SI Termination

* (N)ormal, (R)eactivity, (I)nstrument, (C)omponent, (M)ajor, (TS)Tech Spec, (MC)Manual Control
** Details on subsequent pages