Enclosure 2
to ULNRC-06282

Sequence of Events Timeline

The sequence of events timeline for Callaway Plant Modes 1-4 FLEX strategies is provided in the table below. Elapsed time is the time following the occurrence of the BDBEE scenario as outlined in NEI 12-06.

Action Item	Elapsed Time (hours)[1]	Action	New ELAP Time Constraint (Y/N)[2]	Time Constraint (hours)[3]	Expected Completion Time (hours)	Remarks / Applicability
0	N/A	Event Starts	N/A	N/A	N/A	Plant at 100% Power
1	N/A	Perform SBO Coping Action	N/A	N/A	N/A	SBO actions are proceduralized per SBO Procedure ECA 0.0.
2	0.75	Declare ELAP	Y	0.75	0.50	**Time sensitive -** Required to allow taking actions which place the plant SSCs outside License Basis alignments
3	0.75	Control Room Ventilation	N	N/A	0.50	Callaway Plant procedure, ECA-0.0, Loss of All AC Power, directs opening control room cabinet doors. Temporary ventilation will be utilized through Phase 2.
4	1	NK Power Load Shed	Y	1	0.75	**Time sensitive -** Initiate load shed to start no later than 45 minutes, to complete no later than 1 hour.
5	3	Realign TDAFP Recirculation from CST to HCST	Y	3 *(After HCST is supplying water)*	1	**Time sensitive –** Ensure adequate supply of Condensate Grade water is available to the TDAFP for greater than 24 hours.
6	5	Stage and set up Radio Communications Trailer	N	N/A	3	Radio Communications Trailer is deployed early in the event to ensure adequate communications capability.

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7	5.4	Vent Fuel Building	Y	5.4	3	**Time sensitive –** Spent fuel pool (SFP) cooling is not challenged early in the event; however, access to the Fuel Building as a part of Phase 2 response could be challenged due to environmental conditions local to the pool, so action would be prudent to establish ventilation in this area as early in the event as possible. In addition, hoses will be connected to the SFP make-up and spray piping. The hoses will be run from the connections in the Fuel Building to the outside for later connection to the FLEX SFP Pump.
8	6	Perform Damage Assessment	N	N/A	3	Needed to determine appropriate FLEX strategies.
9	7	Debris Removal	N	N/A	3	Debris removal will start shortly after the event and is an on-going activity. Priority will be determined based on actual needs. Completion of debris removal after 7 hours supports deploying Phase 2 FLEX Equipment as required to support initiation of mitigating strategies.
10	8	Deploy FLEX air compressors	Y	8	6	**Time sensitive –** Earliest need for compressed air to support operation of the ASDs and TDAFP Flow Control Valves.
11	9	Deploy FLEX SG Makeup Pump (Standby)	N	N/A	8	Stage as early as possible in event to provide defense in depth.

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12	12	Perform Plant Cooldown to 415°F	Y	12	3	**Time sensitive** – Lesser of 8 hours + cooldown duration or (24 hours - boron injection / injection rate / 60)-Cooldown duration **8 hr + ((557°F - 415°F) / 100F/hr) = 9.42 hrs** 24hrs - (4177gal/10gpm/60min) = 17.03 hrs 12 hours utilized in timeline due to complexity of action.
13	12	Energize NK Power 480V Generator	Y	12	10	**Time sensitive** – Earliest need for generator, based on providing power for NK System (125 VDC).
14	12.5	Establish Battery Room Ventilation	N	N/A	10.5	Battery room ventilation will be established when battery charging is in progress.
15	17	Initiate RCS Makeup (boration) from BAT	Y	17	12	**Time sensitive**: 24 hours–boron injection/injection rate/60 24hrs – (4177gal/10gpm/60min) = 17.03 hrs
16	18	FLEX Fuel Deployment	N	N/A	12	Assume 10 hours + equipment deployment time. Sufficient ERO resources would be available to perform this activity at this time.
17	24	TDAFP Room Ventilation	N	N/A	12	VP 12-0002, “Callaway’s Response to INPO IER L1-11-4," states in part temperatures in the TDAFP Room, equipment cabinets, and the control room are considered acceptable for 24 hours following a beyond design basis external event (BDBEE).

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18	30	Ultimate Heat Sink Pump	Y	30	24	**Time sensitive** – Need time based on HCST depletion.
19	33	Initiate SFP Makeup	Y	33	18.5	**Time sensitive** – Time for SFP water level to reduce to 15 ft. above the SFP racks assuming sloshing level, 140°F initial temperature, and normal heat load
20	72	4160V generator	Y	72	36	**Time sensitive** – Need time is based on eventual loss of capability to support SG feed strategy and implementation of long-term coping.
21	72	Large Debris Removal	N	N/A	30	Support deployment of FLEX Phase 3 Equipment
22	72	Establish Large Fuel Truck Service	N	N/A	36	Need time is based on depletion of on-site supplies and supplying larger equipment.

Notes:

(1) Following completion of staffing studies, operator action times will be provided for each time sensitive action. All actions will be completed prior to time constraint.

(2) Instructions: Provide justification if No or NA is selected in the remark column. If yes include technical basis discussion as required by NEI 12-06 Section 3.2.1.7.

(3) Time constraints based on TR-FSE-13-4, Callaway Integrated Plan, as submitted to the NRC via ULNRC-05962. Additional refinements may be provided in subsequent updates.