Attachment to "Affidavit And Certification Of The Total Mwh Quantity Generated By The Hope Creek, Salem 1 And Salem 2 Nuclear Plants" of Eric Carr, President and Chief Nuclear Officer Power of PSEG Nuclear LLC, dated June 29, 2020, describing loss events for Salem 2 Nuclear Unit

Pursuant to the May 20, 2020 BPU Order, all loss events have been reviewed and meet the following allowable exceptions:

The selected nuclear power plant should operate at its maximum output, with the exception of;

(1) reduced output or outages associated with equipment maintenance and/or repair that a prudent owner or operator of a nuclear power plant would undertake,

(2) NRC license limitations, fuel limitations (for example, rod pattern adjustments, end of operating cycle fuel management, and coast downs),(3) any PJM imposed constraints,

(4) and other events beyond its reasonable control that are classified as Force Majeure events.

Salem Unit 2 Total Losses: 1,282,765 MWHr							
START	END	DERATED HOURS	MWe Loss	MWh Loss	REASON	Allowed Exception Category	NERC/GADS Code
6/1/19 0:00	7/1/19 0:00	720.0	0	136	Blowdown losses for the month due to condenser tube leaks.	1	3110
6/15/19 9:51	6/16/19 4:32	18.7	22	411	21HD9 Htr Drain Pump Condenser Recirc Valve Failed Open (Heater Drains)	1	3504
7/14/19 0:48	7/15/19 0:41	23.9	25	597	Stopped 21B Circulator Pump for Condenser tube plugging.	1	3110
7/15/19 15:50	7/16/19 1:19	9.5	27	256	Stopped 23A Circulator Pump for pump repack and waterbox cleaning.	1	3210
8/2/19 7:05	8/2/19 8:00	0.9	66	61	Lowering turbine load for turbine valve testing.	1	3210
8/2/19 8:00	8/2/19 11:01	3.0	137	413	Turbine valve testing.	1	3210
8/2/19 11:01	8/2/19 12:50	1.8	51	93	Power ascension following turbine valve testing.	1	3210

Salem Unit 2 I	otal Losses: 1,282,	705 IVI WH		1			1
START	END	DERATED HOURS	MWe Loss	MWh Loss	REASON	Allowed Exception Category	NERC/GADS Code
8/11/19 7:38	8/11/19 8:13	0.6	83	48	Main Bus Duct cooling repairs	1	4805
8/11/19 8:13	8/14/19 12:21	76.1	1216	92578	Manual RX Trip due Feed Reg valve 23BF19 instability.	1	3430
8/14/19 12:21	8/15/19 9:57	21.6	426	9202	Power ascension to 100% following RX trip.	1	3430
9/16/19 0:06	9/28/19 4:07	292.0	16	4672	Stopped the 21A Circulator Pump for planned maintenance	1	3110
10/5/19 23:55	10/6/19 2:59	3.1	9	28	23HD15 Htr Drn Pump Discharge Level Control Valve Not Controlling Properly	1	3501
10/6/19 17:35	10/8/19 16:09	46.6	19	885	Repair 21A Condenser Tube Leak	1	3110
10/19/19 2:46	10/19/19 20:33	17.8	14	249	23HD15 Htr Drn Pump Discharge Level Control Valve Not Controlling Properly	1	3501
10/25/19 10:02	10/25/19 14:02	4.0	1	4	21C Feedwater Heater troubleshooting	1	3501
11/1/19 2:30	11/1/19 14:41	12.2	5	61	23HD15 Htr Drn Pump Discharge Level Control Valve Not Controlling Properly	1	3501
11/8/19 8:05	11/8/19 21:35	13.5	4	54	23HD15 Htr Drn Pump Discharge Level Control Valve Not Controlling Properly	1	3501
11/9/19 10:24	11/9/19 12:51	2.4	5	12	23HD15 Htr Drn Pump Discharge Level Control Valve Not Controlling Properly	1	3501
11/11/19 3:30	11/15/19 15:53	108.4	7	759	Stopped 22B Circulator Pump for 22CW109 maintenance.	1	3210
11/15/19 10:24	11/19/19 18:55	104.5	6	627	Stopped 21A Circulator Pump due to condenser tube leak.	1	3110

Salem Unit 2 T	otal Losses: 1,282,	765 MWHr					
START	END	DERATED HOURS	MWe Loss	MWh Loss	REASON	Allowed Exception Category	NERC/GADS Code
11/23/19 3:08	11/24/19 0:32	21.4	4	86	Stopped 22A Circulator Pump for planned maintenance.	1	3210
11/12/19 10:45	11/16/19 2:42	88.0	2	167	SG Blowdown Losses for month	1	3110
12/3/19 0:19	12/4/19 21:10	45.9	8	367	21B Circulating Water Pump was removed from service at 0019 for scheduled maintenance.	1	3210
12/10/19 13:37	12/15/19 14:47	121.2	3	363	Stopped 22B Circulator Pump due to condenser tube leak.	1	3110
12/16/19 0:30	12/22/19 4:13	147.7	6	886	23B Circulating Water Pump was removed from service for scheduled maintenance.	1	3210
12/26/19 11:00	12/26/19 17:39	6.7	3	20	23B Circulating Water Pump was removed from service for waterbox cleaning.	1	3210
12/27/19 11:00	12/27/19 18:29	7.5	3	22	22A Circulating Water Pump was removed from service for waterbox cleaning.	1	3210
12/27/19 21:31	12/28/19 3:24	5.9	3	18	23A Circulating Water Pump was removed from service for waterbox cleaning.	1	3210
12/28/19 8:00	12/28/19 13:53	5.9	3	18	21B Circulating Water Pump was removed from service for waterbox cleaning.	1	3210
1/1/20 2:00	1/1/20 2:55	0.9	3	3	Stopped 23B Circulator Pump to support travelling screen D/P work.	1	3260
1/5/20 3:06	1/5/20 4:53	1.8	5	9	Lowered Turbine Load to Replace Heater Drain Tank Level Transformer	1	3502
1/5/20 23:30	1/11/20 5:30	126.0	2	252	Stopped 23A Circulator Pump for scheduled traveling screen maintenance.	1	3260

Salem Unit 2 T	otal Losses: 1,282,	765 MWHr					
START	END	DERATED HOURS	MWe Loss	MWh Loss	REASON	Allowed Exception Category	NERC/GADS Code
1/7/20 14:36	1/7/20 15:29	0.9	5	4	Lowered Turbine Load to Replace Heater Drain Tank Level Transformer	1	3502
1/12/20 20:40	1/16/20 16:47	92.1	3	276	Stopped 22A Circulator Pump for scheduled maintenance	1	3210
1/12/20 21:00	1/13/20 19:10	22.2	28	621	Moderator Temperature Coefficient Testing	1	2040
1/19/20 23:08	1/27/20 22:38	191.5	2	383	Stopped 22B Circulator Pump for scheduled maintenance	1	3210
1/19/20 1:11	1/30/20 1:14	264.0	2	528	Stopped 21B Circulator Pump for scheduled maintenance	1	3210
1/30/20 2:59	2/1/20 0:00	45.0	2	90	Stopped 21A Circulator Pump for scheduled maintenance	1	3210
2/1/20 0:00	2/2/20 4:39	28.6	2	57	Stopped 21A Circulator Pump for scheduled maintenance	1	3210
2/8/20 19:30	2/9/20 3:29	8.0	3	24	Stopped 22B Circulator Pump for waterbox cleaning	1	3273
2/20/20 7:45	2/20/20 18:54	11.2	3	33	Stopped 22B Circulator Pump for trveling screen maintenance.	1	3260
2/24/20 21:36	2/27/20 21:37	72.0	5	360	Stopped 21A Circulator Pump for a condenser tube leak.	1	3110
3/8/20 22:30	3/9/20 4:43	6.2	3	19	Stopped 22B Circulator Pump for waterbox cleaning	1	3273
3/14/20 12:07	3/15/20 1:05	13.0	4	52	Stopped 22A Circulator Pump for pump packing work	1	3210

Salem Unit 2 T	765 MWHr						
START	END	DERATED HOURS	MWe Loss	MWh Loss	REASON	Allowed Exception Category	NERC/GADS Code
3/18/20 4:04	3/19/20 1:44	21.7	5	108	Stopped 22A Circulator Pump for pump alignment work	1	3210
3/21/20 21:24	3/23/20 3:08	29.7	5	149	Stopped 22A Circulator Pump for pump packing work	1	3210
3/26/20 23:39	3/27/20 9:30	9.8	5	49	Stopped 22B Circulator Pump for waterbox cleaning	1	3273
3/18/20 22:00	4/1/20 0:00	314.0	23	7222	Began Coastdown into 2R24 IAW S2.OP- IO.ZZ-0004, Attachment 9	2	9110
4/4/20 21:45	4/11/20 0:01	146.3	5	731	Stopped the 22B Circulator Pump for planned maintenance.	1	3210
4/10/20 19:40	4/11/20 0:01	4.4	582	2532	Shutdown for Refueling Outage 2R24	1	2070
4/1/20 0:00	4/10/20 19:40	235.7	87	20401	Refueling Outage 2R24 Coastdown	2	9110
4/11/20 0:01	5/1/20 0:00	480.0	1216	583660	Refueling Outage 2R24	1	2070
5/1/20 0:00	5/9/20 0:01	192.0	1216	233492	Refueling Outage 2R24	1	2070
5/9/20 0:01	5/12/20 13:39	85.6	1216	104130	Refueling Outage Extension 2R24	1	2070
5/12/20 13:39	5/13/20 6:03	16.4	839	13760	Startup From 2R24 (Stopped for stator water pump seal leak)	1	2070
5/13/20 6:03	5/13/20 18:07	12.1	768	9267	Stator water pump seal leak	1	4650
5/13/20 18:07	5/14/20 15:18	21.2	431	9130	Startup From 2R24 (Stopped for 24BF19 Problem)	1	2070
5/14/20 15:18	5/14/20 17:13	1.9	740	1418	Power reduction (from 73%) to repair 24BF19	1	3430
5/14/20 17:13	5/18/20 5:52	84.6	1216	102934	Forced Outage to repair 24BF19	1	3430

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5/18/20 5:52	5/18/20 15:31	9.7	828	7990	S/U from Forced Outage to repair 24BF19 (to 73%). Stopped at 60% to repair 22 SGFP.	1	3431
5/18/20 15:31	5/23/20 19:20	123.8	544	67356	Repair 22 SGFP. Power escalation to 73%.	1	3456
5/23/20 19:20	5/24/20 17:22	22.0	91	2005	Startup From 2R24 (Continued from 73%)	1	2070
5/25/20 13:54	5/25/20 14:59	1.1	5	5	21 Bleed Steam Coil Drn Tank Tuning	1	3502
5/26/20 3:00	5/28/20 16:35	61.6	10	616	Stopped 23B Circulator Pump for maintenance	1	3273
5/31/20 23:52	6/1/20 0:00	0.1	31	4	26B Feedwater Heater Manway Leak	1	3441