

**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 1 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 1 Total Losses: 1,470,253 MWhr							
START	END	DERATED HOURS	Mwe Loss	MWh Loss	REASON	Allowed Exception Category	NERC/GADS Code
6/1/19 0:00	6/18/19 18:17	426.3	1228	523476	1R26 Extension - Baffle Bolt Inspection	1	2070
6/18/19 18:17	6/21/19 16:32	70.2	434	30484	Power Ascension Following 1R26.	1	2070
6/24/19 2:13	6/24/19 2:33	0.3	13	4	Loss of Moisture Separator Reheater2nd Stage Heating Steam	1	3502
6/24/19 4:00	6/27/19 13:47	81.8	14	1145	Removed a Circulator pump Pump for Planned Maintenance	1	3210
6/24/19 8:23	6/27/19 15:15	78.9	4	347	12 MSR's Tripped on 12 Main Steam Coil Drn Tank High Level	1	3502
7/8/19 17:32	7/16/19 9:52	184.3	4	811	12 MSR's Tripped on 12 Main Steam Coil Drn Tank High Level	1	3502
7/12/19 2:48	7/12/19 14:22	11.6	7	86	SG Blowdown losses due to Heater Drain pump leak repair injection.	1	3501

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8/22/19 19:44	8/27/19 3:19	103.6	23	2341	Removed 11B Circulator pump pump from service due to condenser tube leak.	1	3100
9/9/19 13:51	9/9/19 17:39	3.8	6	23	High Pressure Feedwater Heater Tuning (planned)	1	3441
9/10/19 6:43	9/10/19 18:14	11.5	6	69	High Pressure Feedwater Heater 16A Level Problem	1	3441
9/13/19 10:00	9/13/19 13:51	3.8	6	23	High Pressure Feedwater Heater Tuning (planned)	1	3441
9/16/19 8:00	9/16/19 16:48	8.8	260	2288	Repair MS Reheat Stop SOV - planned	1	4263
9/16/19 16:48	9/17/19 2:26	9.6	30	289	Continue repairs to Crossflow FW Ultrasonic flow indication	1	3499
9/18/19 9:02	9/18/19 15:34	6.5	7	46	High Pressure Feedwater Heater Tuning (planned)	1	3441
9/18/19 9:37	9/18/19 14:33	4.9	7	35	High Pressure Feedwater Heater Tuning (planned)	1	3441
9/23/19 8:47	9/23/19 15:27	6.7	7	47	High Pressure Feedwater Heater Tuning (planned)	1	3441
9/25/19 13:08	9/26/19 16:24	27.3	7	191	13 AFW Pump testing - power reduction	1	2840
9/29/19 23:07	10/1/19 12:00	36.9	17	627	Stopped 13B Circulator pump for Planned Maintenance	1	3110
10/1/19 12:00	10/3/19 12:51	48.8	17	830	Stopped 13B Circulator pump for Planned Maintenance	1	3110

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10/3/19 3:54	10/9/19 17:10	157.3	19	2988	Stopped 11B Circulator pump for Condenser tube leak repair	1	3110
10/10/19 3:40	10/13/19 6:15	74.6	11	820	Stopped 12A Circulator pump for Planned Maintenance	1	3110
10/15/19 8:34	10/15/19 14:56	6.4	5	32	High Pressure Feedwater Heater 16C Tuning (planned)	1	3441
10/22/19 8:04	10/22/19 16:59	8.9	12	107	Stopped 13B Circulator pump for Planned Maintenance	1	3110
10/23/19 8:00	10/23/19 19:49	11.8	14	165	Stopped 13A Circulator pump for Planned Maintenance	1	3111
11/1/19 2:20	11/4/19 10:50	80.5	14	1127	Stopped 11B Circulator pump for Condenser tube leak repair	1	3110
11/5/19 18:39	11/6/19 0:12	5.5	8	44	Stopped 12B Circulator pump for waterbox cleaning.	1	3273
11/6/19 3:46	11/8/19 12:44	57.0	8	456	Stopped 11A Circulator pump for scheduled maintenance.	1	3210
11/8/19 9:15	11/8/19 10:39	1.4	7	10	High Pressure Feedwater Heater 16C Tuning (planned)	1	3441
11/8/19 19:30	11/9/19 15:11	19.7	6	118	Stopped 12A Circulator pump for waterbox cleaning.	1	3273
11/13/19 3:53	11/14/19 14:45	34.9	12	418	Stopped 13A Circulator pump for scheduled maintenance.	1	3210
11/15/19 9:47	11/15/19 11:24	1.6	4	6	Stopped 11A Circulator pump for turbine differential expansion data	1	4470

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					collection.		
11/18/19 5:50	11/22/19 14:13	104.4	3	313	12 Bleed Steam Coil Drn Tank pump tripped. Investigate and repair.	1	3501
11/23/19 6:59	11/23/19 17:24	10.4	9	94	Stopped 13A Circulator pump for scheduled maintenance.	1	3210
11/29/19 7:30	11/29/19 12:10	4.7	3	14	Stopped 13B Circulator pump for waterbox cleaning.	1	3273
11/29/19 21:36	11/30/19 3:55	6.3	7	44	Turb diff expansion troubleshooting plan 11E & 11W MSR	1	4470
11/29/19 23:15	11/30/19 5:06	5.9	4	23	Stopped 12B Circulator pump for waterbox cleaning.	1	3273
11/30/19 8:20	11/30/19 9:34	1.2	164	202	Lowering turbine load for turbine valve testing.	1	4266 ,4267, 4268
11/30/19 9:34	11/30/19 13:14	3.7	334	1225	Turbine valve testing.	1	4267 ,4267, 4268
11/30/19 13:14	11/30/19 19:01	5.8	101	584	Power ascension following turbine valve testing.	1	4268 ,4267, 4268
12/2/19 2:21	12/4/19 13:00	58.6	4	235	Stopped 12B Circulator pump for scheduled maintenance.	1	3110
12/10/19 13:01	12/10/19 14:49	1.8	1	2	Feedwater Heater 14B Tuning (planned)	1	3441
12/13/19 8:51	12/13/19 10:10	1.3	5	7	Stopped 13A Circulator pump for traveling screen cleaning.	1	3261

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START	END	DERATED HOURS	Mwe Loss	MWh Loss	REASON	Allowed Exception Category	NERC/GADS Code
12/26/19 10:36	12/26/19 12:02	1.4	4	6	Lowered Turbine load for AFW Pump test.	1	2840
12/26/19 21:07	12/27/19 0:27	3.3	3	10	13B Circulating Water Pump was removed from service for waterbox cleaning.	1	3210
12/27/19 20:57	12/28/19 3:07	6.2	2	12	12B Circulating Water Pump was removed from service for waterbox cleaning.	1	3210
12/28/19 8:41	12/28/19 13:48	5.1	3	15	11A Circulating Water Pump was removed from service for waterbox cleaning.	1	3210
12/28/19 20:57	12/29/19 3:07	6.2	2	12	12B Circulating Water Pump was removed from service for waterbox cleaning.	1	3210
12/29/19 8:16	12/29/19 14:25	6.1	3	18	13B Circulating Water Pump was removed from service for waterbox cleaning.	1	3210
1/13/20 2:50	1/14/20 20:42	41.9	4	167	Stopped 11B Circulator pump for scheduled maintenance	1	3210
1/16/20 3:45	1/19/20 4:19	72.6	3	218	Stopped 12A Circulator pump for scheduled maintenance	1	3210
1/20/20 1:57	1/22/20 2:48	48.8	4	195	Stopped 13B Circulator pump for scheduled maintenance	1	3210
1/28/20 1:00	1/29/20 23:22	46.4	4	185	Stopped 11A Circulator pump for scheduled maintenance	1	3210

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1/31/20 9:06	1/31/20 10:05	1.0	2	2	Stopped 11B Circulator pump for traveling screen cleaning	1	3261
1/31/20 10:37	1/31/20 11:32	0.9	2	2	Stopped 13A Circulator pump for traveling screen cleaning	1	3261
2/3/20 3:40	2/8/20 9:51	126.2	3	379	Initiated a stop of 13A Circulator pump for scheduled maintenance.	1	3110
2/8/20 12:31	2/8/20 16:59	4.5	4	18	Initiated a stop of 12B Circulator pump for waterbox cleaning.	1	3273
2/11/20 4:15	2/11/20 11:42	7.5	4	30	Initiated a stop of 12B Circulator pump for waterbox cleaning.	1	3273
2/14/20 22:30	2/15/20 4:50	6.3	3	19	Initiated a stop of 12B Circulator pump for waterbox cleaning.	1	3273
2/22/20 9:14	2/25/20 14:18	77.1	5	385	Initiated a stop of 13A Circulator pump for a condenser tube leak.	1	3110
2/25/20 19:07	2/25/20 20:38	1.5	602	913	Unplanned shutdown to repair 14 SG tube leak'	1	2400
2/25/20 20:38	3/1/20 0:00	99.4	1228	122022	Forced Outage to repair 14 SG tube leak'	1	2400
3/1/20 0:00	3/26/20 10:40	610.7	1228	749899	Forced Outage to repair 14 Steam Generator tube leak	1	2400
3/26/20 10:40	3/28/20 4:38	42.0	415	17416	Startup From SG Forced Outage.	1	2400
3/28/20 4:38	4/1/20 0:00	91.4	25	2284	11 Heater Drain Pump Seal Repair	1	3501
4/1/20 0:00	4/3/20 21:28	69.5	25	1737	11 Heater Drain Pump Seal Repair	1	3501

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4/5/20 20:38	4/6/20 3:24	6.8	5	34	Stopped 12B Circulator pump for waterbox cleaning	1	3273
4/10/20 12:03	4/10/20 17:06	5.1	7	35	Stopped 12B Circulator pump for planned maintenance	1	3210
4/13/20 7:18	4/13/20 9:35	2.3	15	34	13A Circulator pump Pump Tripped	1	3210
4/15/20 11:20	4/15/20 16:50	5.5	6	33	Stopped the 12B Circulator pump for waterbox cleaning	1	3273
4/16/20 0:40	4/16/20 5:51	5.2	5	26	Stopped the 12A Circulator pump for waterbox cleaning	1	3273
4/20/20 0:25	4/20/20 5:13	4.8	27	130	Stopped the 11A Circulator pump for waterbox cleaning	1	3273
4/21/20 0:12	4/21/20 4:23	4.2	5	21	Stopped the 13A Circulator pump for waterbox cleaning	1	3273
4/21/20 21:50	4/29/20 9:52	180.0	6	1080	Stopped the 11B Circulator pump for maintenance	1	3210
5/3/20 20:42	5/4/20 2:22	5.7	4	23	Stopped 12A Circulator pump for waterbox cleaning	1	3273
5/4/20 4:35	5/4/20 20:03	15.5	10	155	Stopped 12B Circulator pump for waterbox cleaning	1	3273
5/9/20 12:20	5/9/20 17:16	4.9	16	79	Stopped 11A Circulator pump for waterbox cleaning	1	3273
5/9/20 18:38	5/10/20 2:18	7.7	5	38	Stopped 12B Circulator pump for waterbox cleaning	1	3273

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5/18/20 8:21	5/18/20 17:06	8.8	18	158	Stopped 11A Circulator pump for trash rake cleaning	1	3273
5/19/20 4:00	5/19/20 16:29	12.5	7	87	Stopped 12B Circulator pump for waterbox cleaning	1	3273
5/23/20 18:05	5/23/20 22:55	4.8	21	102	Stopped 11B Circulator pump for waterbox cleaning	1	3273
5/24/20 18:57	5/24/20 23:43	4.8	8	38	Stopped 11A Circulator pump for trash rake cleaning	1	3273
5/26/20 9:48	5/26/20 10:49	1.0	13	13	Stopped 11B Circulator pump for trash rake cleaning	1	3273
5/26/20 12:35	5/26/20 14:05	1.5	9	14	Stopped 12A Circulator pump for trash rake cleaning	1	3273
5/28/20 13:24	5/28/20 15:46	2.4	5	12	Tune 13 Heater Drain Tank level controller.	1	3502