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August 24, 2017

The Honorable James Richard Perry
Secretary of the Energy
United States Department of Energy
1000 Independence Ave, SW
Washington, DC 20585

Re: Report on Yorktown Units 1 and 2 Operations Pursuant to Order No. 202-17-2

Dear Secretary Perry:

Pursuant to Order No. 202-17-2 (the “Order”) issued on June 16, 2017, by the Secretary of Energy (“Secretary”), PJM Interconnection, L.L.C. (“PJM”) and Dominion Virginia Electric and Power Company (“Dominion Energy Virginia”) respectfully submits the following report in accordance with the Secretary’s directive to “report all dates on which Yorktown Unites 1 and 2 are operated as well as the estimated emissions and water usage data associated with their operations.”¹

In the Order, the Secretary determined “that an emergency exists in the Commonwealth of Virginia due to a shortage of electric energy, a shortage of facilities for the generation of electric energy, and other causes, and that issuance of this Order will meet the emergency and serve the public interest.”² In doing so, the Secretary directed Dominion Energy Virginia to

¹ The Order directs this report to be submitted by “September 14, 2017, or the date upon which a renewal request is submitted, whichever occurs first.” The Secretary directed such renewal requests to be submitted 21 days prior to expiration of the Order (*i.e.* August 25, 2017) “if the conditions change – for example, if Dominion Energy Virginia obtains all permitting approvals for the RTEPP upgrade...” Accordingly, PJM is submitting to the Secretary a renewal application concurrently with this report.

² Order at page 1

operate Yorktown Units 1 and 2 as directed by PJM as needed to address reliability issues for the initial 90-day period, June 16, 2017 to September 14, 2017, or any renewal thereof.³

In the Order, the Secretary authorized PJM to operate Yorktown Units 1 and 2, with no planned transmission outages, to maintain reliability when Dominion Energy Virginia total load reaches approximately 18,400 MW (referred to as “Scenario 1” in the Application).⁴ The Order also authorizes operation of the Yorktown Units 1 and 2 to maintain reliability at lower Dominion Energy Virginia load levels during various planned transmission outages to support construction of the Skiffes Creek Transmission Project (referred to as “Scenario 2”). As stated in the application submitted on June 13, 2017 (the “Application”), under Scenario 2 the specific planned transmission outage condition will determine the Dominion Energy Virginia total load level at which the Yorktown Units are required to run to maintain reliability.⁵ A table in Appendix III of the Application included the then current estimates for Yorktown units run time for a planned transmission outage sequence starting in the summer of 2017, which was dependent upon the issuance of the Army Corps of Engineers’ permit.

Report on Yorktown Units 1 and 2 Operations Pursuant to the Order

The Army Corps’ permit was issued July 3, 2017, and Dominion Energy Virginia started construction of the Skiffes Creek Transmission Project on July 10, 2017. To facilitate construction, the Warwick-Wheaton 292 transmission line (230 kV) and Wheaton 2 transformer were taken out of service on July 9. Operations of Yorktown Units 1 and 2 as directed by PJM to ensure reliability were in compliance with the Order and based on the appropriate Dominion

³ Order as page 2

⁴ Order at page 1

⁵ Appendix II of the Application includes examples of running the Yorktown Units at different Dominion Energy Virginia total load levels concurrent with planned transmission outages to ensure reliability.

Energy Virginia total load level threshold demands (see Attachment 1 referenced below). PJM called on for the dispatch of the Yorktown units to ensure reliability July 11 – 25 and August 22 due to weather related total load demand. Thus, from June 16, 2016, through September 14, 2017, operations of Yorktown Units 1 and 2 as directed by PJM to ensure reliability are authorized pursuant to the DOE Order under both Scenario 1 and Scenario 2.

Attachment 1 to this report is the July Yorktown Runtime Report that shows the actual runtime and emissions data for July 2017.⁶ This spreadsheet includes hourly runtime data for Yorktown Unit 1 and Yorktown Unit 2, Megawatt (MW) outputs, Dominion zonal load in MWs, recorded temperatures and heat index temperatures in Richmond, VA. Attachment 2 to this report is the Calculated Data Report showing raw and calculated data for July 2017 showing actual emissions data associated with operations of Yorktown Unit 1 and/or Yorktown Unit 2.⁷

The information in Attachment 2 reports Yorktown Units 1 and 2 (combined) hourly emissions of PM-10 and SO₂ in pounds per million BTU, and mercury in pounds per trillion BTU (MATS format) for the operating period beginning July 10, 2017 and ending on July 26, 2017. Additionally, for the same time period, Units 1 and 2 (combined) hourly emissions of NO_x (pounds per million BTU), greenhouse gases (as CO₂) in tons per hour, lead in pounds per hour, HCl in pounds per million BTU, HF in pounds per hour, and CO in pounds per hour, are

⁶ PJM directed Dominion Energy Virginia to operate Yorktown Unit 2 on August 22, 2017, to ensure reliability in compliance with the Order; however, the data for that operating day including emissions and water usage is not yet available. PJM and Dominion Energy Virginia will include the information and data for that date and any other dates the Yorktown Units are required to run to ensure reliability in compliance with the Order through the end of term of the Order in the next report or as directed by the Secretary.

⁷ There is a difference between the two spreadsheets because the Yorktown units can emit pollution while not generating MWs (*e.g.* during standby, startup and shutdown sequences). Thus, Attachment 1 shows the MW output during the period PJM dispatched the units to provide power to the grid (July 11 – 25) and Attachment 2 shows the emissions data for operations of the Yorktown units including times when the units were not generating power (July 10 – 26).

provided. NO_x and SO₂ emissions are based on valid hours of Continuous Emissions Monitoring System (CEMS) data for the period. PM-10 emissions are based on the emission factor derived from the July 21, 2017 stack test (0.0168 lbs/mmBtu). CO₂ emissions are based on valid CEMS hours for the operating period. All other emissions were calculated using emission factors from AP-42, Fifth Edition, Volume 1, Chapter 1: External Combustion Sources and calculated hourly coal consumption in tons. HCl and HF emissions were calculated using emission factors from AP-42, Table 1.1-15.⁸ The estimated monthly emissions have been calculated based on estimated run time (days) shown in Columns V thru AL and the emissions are based on full operating days. For the monthly emissions estimates, an operating day conservatively assumes 24 hours of operation, 16 hours at low load and 8 hours at maximum load. This will account for not only the time the units are called to provide power to the grid (8 hours at maximum load), but also start-up, shut-down, stand-by, and other low load operations for 16 hours.

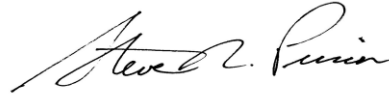
Attachment 3 of this report is a spread sheet entitled “Yorktown Power Station July 2017 Circulating Water Usage for DOE Emergency Run Per PJM Dispatch.” This spreadsheet provides the intake circulating water usage for Yorktown Units 1 and 2 operations in July 2017 pursuant to the Order.

PJM and Dominion Energy Virginia respectfully submits the information in the report be accepted by the Secretary as compliant with the Order’s directives to report all dates on which

⁸ Mercury and lead emissions were calculated using AP-42, Table 1.1-18. CO emissions were calculated using emission factors from AP-42, Table 1.1-3. Total HAP metals and individual HAP metals are not provided because MATS Table 2 (40 CFR 63, Subpart UUUUU) provides for compliance with either the PM limit or total non-mercury HAP metals limits or individual HAP metals. Dominion Energy Virginia is providing PM-10 emissions for the purposes of MATS.

Yorktown Units 1 and 2 are operated as well as the estimated emissions and water usage data associated with their operations.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Steven R. Pincus". The signature is fluid and cursive, with the first name "Steven" being the most prominent.

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Michael C. Regulinski, Dominion Energy Services, Inc.
Casey Roberts, Sierra Club Environmental Law Program

ATTACHMENT 1

Copy of July Yorktown Runtime Report

Start 7/11/2017
 End 7/27/2017
 Interval 1h

Timestamp	Hour Ending	Yorktown 1 output (MW)	Yorktown 2 output (MW)	Dominion zonal load (MW)	Temperature (Richmond) (°F)	Heat Index
	7/11/17 1:00	0	0	11424	77.0 °F	-
	7/11/17 2:00	0	0	10729	73.9 °F	-
	7/11/17 3:00	0	0	10228	73.9 °F	-
	7/11/17 4:00	0	0	9965	73.0 °F	-
	7/11/17 5:00	0	0	9895	72.0 °F	-
	7/11/17 6:00	0	9	10298	72.0 °F	-
	7/11/17 7:00	0	16	10777	73.0 °F	-
	7/11/17 8:00	0	44	11675	75.0 °F	-
	7/11/17 9:00	0	65	12688	80.1 °F	84.2 °F
	7/11/17 10:00	0	89	13517	82.9 °F	88.8 °F
	7/11/17 11:00	0	112	14387	87.1 °F	94.5 °F
	7/11/17 12:00	0	102	15087	90.0 °F	95.4 °F
	7/11/17 13:00	0	100	15783	91.9 °F	97.4 °F
	7/11/17 14:00	0	118	16265	93.0 °F	100.1 °F
	7/11/17 15:00	0	137	16625	95.0 °F	97.4 °F
	7/11/17 16:00	0	140	17062	93.0 °F	94.2 °F
	7/11/17 17:00	0	141	17330	95.0 °F	96.0 °F
	7/11/17 18:00	0	141	17306	91.9 °F	94.1 °F
	7/11/17 19:00	0	141	16877	91.0 °F	94.3 °F
	7/11/17 20:00	0	135	16367	84.9 °F	90.1 °F
	7/11/17 21:00	0	115	15875	80.1 °F	84.2 °F
	7/11/17 22:00	0	119	15317	80.1 °F	83.6 °F
	7/11/17 23:00	0	108	14054	78.1 °F	-
	7/12/17 0:00	0	100	12997	81.0 °F	84.4 °F
	7/12/17 1:00	0	101	12007	81.0 °F	84.9 °F
	7/12/17 2:00	0	101	11349	82.0 °F	86.7 °F
	7/12/17 3:00	0	101	10877	81.0 °F	85.8 °F
	7/12/17 4:00	0	100	10562	81.0 °F	85.8 °F
	7/12/17 5:00	0	100	10574	79.0 °F	-
	7/12/17 6:00	0	100	10950	75.9 °F	-
	7/12/17 7:00	0	100	11523	77.0 °F	-
	7/12/17 8:00	0	100	12454	79.0 °F	-
	7/12/17 9:00	0	100	13271	81.0 °F	86.2 °F
	7/12/17 10:00	0	100	14330	87.1 °F	96.3 °F
	7/12/17 11:00	0	100	15459	88.0 °F	96.5 °F
	7/12/17 12:00	0	101	16492	90.0 °F	100.2 °F
	7/12/17 13:00	0	101	17323	93.9 °F	103.4 °F
	7/12/17 14:00	0	102	18006	95.0 °F	101.3 °F
	7/12/17 15:00	0	115	18235	96.1 °F	101.0 °F

7/12/17 16:00	0	129	18342	98.1 °F	103.0 °F
7/12/17 17:00	0	142	18606	96.1 °F	99.3 °F
7/12/17 18:00	0	147	18704	95.0 °F	99.5 °F
7/12/17 19:00	0	148	18524	93.9 °F	99.1 °F
7/12/17 20:00	0	148	18200	89.1 °F	99.1 °F
7/12/17 21:00	0	148	17582	84.0 °F	92.6 °F
7/12/17 22:00	0	148	16964	82.0 °F	89.4 °F
7/12/17 23:00	0	145	15587	82.9 °F	90.8 °F
7/13/17 0:00	0	103	14221	82.0 °F	88.6 °F
7/13/17 1:00	0	99	13132	82.0 °F	87.9 °F
7/13/17 2:00	0	99	12395	82.0 °F	87.9 °F
7/13/17 3:00	0	99	11815	82.0 °F	87.9 °F
7/13/17 4:00	0	99	11468	78.1 °F	-
7/13/17 5:00	0	99	11395	77.0 °F	-
7/13/17 6:00	0	99	11688	77.0 °F	-
7/13/17 7:00	0	99	12318	78.1 °F	-
7/13/17 8:00	0	99	13176	82.0 °F	88.6 °F
7/13/17 9:00	0	99	14191	84.9 °F	92.1 °F
7/13/17 10:00	0	100	15301	87.1 °F	95.4 °F
7/13/17 11:00	0	129	16473	90.0 °F	99.0 °F
7/13/17 12:00	0	146	17462	91.9 °F	103.2 °F
7/13/17 13:00	0	146	18196	93.9 °F	104.0 °F
7/13/17 14:00	0	146	18702	96.1 °F	103.5 °F
7/13/17 15:00	0	146	18768	98.1 °F	105.0 °F
7/13/17 16:00	0	145	18787	98.1 °F	106.5 °F
7/13/17 17:00	1	145	18805	97.0 °F	107.0 °F
7/13/17 18:00	34	144	18784	95.0 °F	104.5 °F
7/13/17 19:00	53	144	18668	93.9 °F	103.4 °F
7/13/17 20:00	69	143	18138	91.0 °F	100.4 °F
7/13/17 21:00	84	143	17724	86.0 °F	95.1 °F
7/13/17 22:00	103	143	17128	87.1 °F	95.4 °F
7/13/17 23:00	102	136	15714	86.0 °F	93.8 °F
7/14/17 0:00	101	105	14428	84.0 °F	91.2 °F
7/14/17 1:00	101	100	13405	82.9 °F	88.0 °F
7/14/17 2:00	101	99	12607	81.0 °F	84.9 °F
7/14/17 3:00	101	99	12012	80.1 °F	83.6 °F
7/14/17 4:00	101	99	11591	79.0 °F	-
7/14/17 5:00	101	99	11558	75.0 °F	-
7/14/17 6:00	102	99	11842	73.9 °F	-
7/14/17 7:00	101	99	12235	75.9 °F	-
7/14/17 8:00	102	99	13144	79.0 °F	-
7/14/17 9:00	101	100	14124	84.0 °F	89.6 °F
7/14/17 10:00	101	101	15217	87.1 °F	93.6 °F
7/14/17 11:00	131	136	16341	91.0 °F	99.3 °F
7/14/17 12:00	148	146	17231	93.0 °F	100.7 °F
7/14/17 13:00	148	146	17999	95.0 °F	104.5 °F
7/14/17 14:00	148	146	18551	95.0 °F	104.5 °F

7/14/17 15:00	148	145	18816	96.1 °F	104.9 °F
7/14/17 16:00	147	145	18943	97.0 °F	107.0 °F
7/14/17 17:00	144	145	18377	96.1 °F	103.5 °F
7/14/17 18:00	136	136	17621	95.0 °F	101.3 °F
7/14/17 19:00	122	121	17278	91.9 °F	99.5 °F
7/14/17 20:00	125	124	16669	88.0 °F	94.7 °F
7/14/17 21:00	109	102	15921	84.9 °F	89.4 °F
7/14/17 22:00	99	99	15247	84.0 °F	89.0 °F
7/14/17 23:00	70	100	14182	84.0 °F	88.4 °F
7/15/17 0:00	0	98	13081	82.9 °F	87.0 °F
7/15/17 1:00	0	78	12118	78.1 °F	-
7/15/17 2:00	0	3	11337	79.0 °F	-
7/15/17 3:00	0	0	10734	75.0 °F	-
7/15/17 4:00	0	0	10413	75.0 °F	-
7/15/17 5:00	0	0	10259	75.9 °F	-
7/15/17 6:00	0	0	10338	73.9 °F	-
7/15/17 7:00	0	0	10416	75.0 °F	-
7/15/17 8:00	0	0	10956	77.0 °F	-
7/15/17 9:00	0	0	11989	81.0 °F	84.9 °F
7/15/17 10:00	0	0	13036	86.0 °F	91.5 °F
7/15/17 11:00	0	0	14047	87.1 °F	92.8 °F
7/15/17 12:00	0	0	14911	90.0 °F	94.5 °F
7/15/17 13:00	0	0	15547	91.9 °F	94.1 °F
7/15/17 14:00	0	0	15974	90.0 °F	91.7 °F
7/15/17 15:00	0	0	16213	93.0 °F	95.0 °F
7/15/17 16:00	0	0	16417	91.9 °F	92.9 °F
7/15/17 17:00	0	0	16334	91.9 °F	93.3 °F
7/15/17 18:00	0	0	16355	90.0 °F	91.3 °F
7/15/17 19:00	0	0	16237	88.0 °F	89.3 °F
7/15/17 20:00	0	0	15608	86.0 °F	87.3 °F
7/15/17 21:00	0	0	14965	82.0 °F	84.5 °F
7/15/17 22:00	0	0	14463	79.0 °F	-
7/15/17 23:00	0	0	13446	78.1 °F	-
7/16/17 0:00	0	0	12318	78.1 °F	-
7/16/17 1:00	0	0	11336	77.0 °F	-
7/16/17 2:00	0	0	10614	75.9 °F	-
7/16/17 3:00	0	0	10106	77.0 °F	-
7/16/17 4:00	0	0	9721	75.0 °F	-
7/16/17 5:00	0	0	9503	73.9 °F	-
7/16/17 6:00	0	0	9395	73.0 °F	-
7/16/17 7:00	0	0	9381	73.9 °F	-
7/16/17 8:00	0	0	10033	77.0 °F	-
7/16/17 9:00	0	0	11121	80.1 °F	81.9 °F
7/16/17 10:00	0	0	12232	84.0 °F	85.4 °F
7/16/17 11:00	0	0	13202	87.1 °F	87.8 °F
7/16/17 12:00	0	0	14036	88.0 °F	88.7 °F
7/16/17 13:00	0	0	14684	88.0 °F	89.3 °F

7/16/17 14:00	0	0	15275	87.1 °F	88.9 °F
7/16/17 15:00	0	0	15655	90.0 °F	91.7 °F
7/16/17 16:00	0	0	15883	88.0 °F	89.6 °F
7/16/17 17:00	0	0	16088	89.1 °F	91.3 °F
7/16/17 18:00	0	0	16158	88.0 °F	90.3 °F
7/16/17 19:00	0	0	15971	84.9 °F	90.1 °F
7/16/17 20:00	0	0	15484	84.0 °F	89.0 °F
7/16/17 21:00	0	0	14962	81.0 °F	84.4 °F
7/16/17 22:00	0	0	14436	78.1 °F	-
7/16/17 23:00	0	0	13310	77.0 °F	-
7/17/17 0:00	0	0	12065	75.0 °F	-
7/17/17 1:00	0	0	11224	73.9 °F	-
7/17/17 2:00	0	0	10556	72.0 °F	-
7/17/17 3:00	0	0	10141	73.0 °F	-
7/17/17 4:00	0	0	9901	72.0 °F	-
7/17/17 5:00	0	0	10001	70.0 °F	-
7/17/17 6:00	0	0	10364	70.0 °F	-
7/17/17 7:00	0	0	10916	71.1 °F	-
7/17/17 8:00	0	0	11675	72.0 °F	-
7/17/17 9:00	0	0	12386	73.9 °F	-
7/17/17 10:00	0	0	13226	77.0 °F	-
7/17/17 11:00	0	0	14201	81.0 °F	84.9 °F
7/17/17 12:00	0	0	15034	84.0 °F	89.0 °F
7/17/17 13:00	0	0	15790	86.0 °F	91.5 °F
7/17/17 14:00	0	0	16433	86.0 °F	90.7 °F
7/17/17 15:00	0	0	16854	87.1 °F	92.8 °F
7/17/17 16:00	0	0	17172	88.0 °F	92.9 °F
7/17/17 17:00	0	0	17235	89.1 °F	93.7 °F
7/17/17 18:00	0	0	17077	87.1 °F	92.0 °F
7/17/17 19:00	0	0	16886	84.0 °F	89.0 °F
7/17/17 20:00	0	0	16241	82.0 °F	86.7 °F
7/17/17 21:00	0	0	15665	80.1 °F	83.8 °F
7/17/17 22:00	0	0	15059	78.1 °F	-
7/17/17 23:00	0	0	13838	77.0 °F	-
7/18/17 0:00	0	0	12651	75.9 °F	-
7/18/17 1:00	0	0	11647	75.0 °F	-
7/18/17 2:00	0	0	11019	75.0 °F	-
7/18/17 3:00	0	0	10565	73.9 °F	-
7/18/17 4:00	0	0	10269	73.9 °F	-
7/18/17 5:00	0	0	10283	73.0 °F	-
7/18/17 6:00	0	0	10682	73.0 °F	-
7/18/17 7:00	0	0	11244	73.0 °F	-
7/18/17 8:00	0	0	12077	75.0 °F	-
7/18/17 9:00	0	0	12950	78.1 °F	-
7/18/17 10:00	0	0	13878	82.9 °F	88.8 °F
7/18/17 11:00	0	0	14789	86.0 °F	93.8 °F
7/18/17 12:00	0	0	15718	86.0 °F	92.2 °F

7/18/17 13:00	0	0	16420	89.1 °F	95.0 °F
7/18/17 14:00	0	0	17014	88.0 °F	94.7 °F
7/18/17 15:00	0	0	17116	88.0 °F	93.8 °F
7/18/17 16:00	0	0	17181	91.0 °F	97.6 °F
7/18/17 17:00	0	0	17290	91.0 °F	97.6 °F
7/18/17 18:00	0	0	17080	89.1 °F	96.0 °F
7/18/17 19:00	0	0	16641	87.1 °F	92.8 °F
7/18/17 20:00	0	0	16300	82.9 °F	88.8 °F
7/18/17 21:00	0	0	15729	80.1 °F	84.2 °F
7/18/17 22:00	0	0	15146	79.0 °F	-
7/18/17 23:00	0	0	13921	75.9 °F	-
7/19/17 0:00	0	2	12663	75.0 °F	-
7/19/17 1:00	0	10	11647	75.0 °F	-
7/19/17 2:00	0	31	10860	73.0 °F	-
7/19/17 3:00	0	73	10394	72.0 °F	-
7/19/17 4:00	0	97	10077	70.0 °F	-
7/19/17 5:00	0	104	10052	69.1 °F	-
7/19/17 6:00	0	103	10474	68.0 °F	-
7/19/17 7:00	10	102	10997	70.0 °F	-
7/19/17 8:00	59	102	11861	75.0 °F	-
7/19/17 9:00	93	102	12787	79.0 °F	-
7/19/17 10:00	102	125	13680	84.0 °F	86.3 °F
7/19/17 11:00	117	144	14554	87.1 °F	89.2 °F
7/19/17 12:00	134	145	15766	89.1 °F	92.1 °F
7/19/17 13:00	136	145	16603	91.0 °F	93.8 °F
7/19/17 14:00	136	146	17274	91.0 °F	93.8 °F
7/19/17 15:00	137	145	17691	93.9 °F	97.0 °F
7/19/17 16:00	137	145	17948	93.9 °F	96.1 °F
7/19/17 17:00	137	146	18219	93.0 °F	95.0 °F
7/19/17 18:00	137	146	18318	91.9 °F	94.1 °F
7/19/17 19:00	137	146	18151	91.9 °F	94.1 °F
7/19/17 20:00	137	146	17630	89.1 °F	91.3 °F
7/19/17 21:00	137	146	17062	82.9 °F	86.5 °F
7/19/17 22:00	137	146	16364	80.1 °F	83.2 °F
7/19/17 23:00	136	146	14987	80.1 °F	82.9 °F
7/20/17 0:00	136	145	13668	78.1 °F	-
7/20/17 1:00	120	121	12575	77.0 °F	-
7/20/17 2:00	97	99	11799	75.9 °F	-
7/20/17 3:00	95	99	11199	75.0 °F	-
7/20/17 4:00	98	97	10874	75.0 °F	-
7/20/17 5:00	98	93	10767	73.9 °F	-
7/20/17 6:00	98	97	11095	73.0 °F	-
7/20/17 7:00	99	100	11641	73.9 °F	-
7/20/17 8:00	114	115	12571	77.0 °F	-
7/20/17 9:00	136	138	13527	82.9 °F	87.5 °F
7/20/17 10:00	136	145	14693	88.0 °F	93.8 °F
7/20/17 11:00	136	146	15896	91.0 °F	97.6 °F

7/20/17 12:00	136	145	16974	93.0 °F	97.9 °F
7/20/17 13:00	135	145	17755	93.0 °F	97.4 °F
7/20/17 14:00	135	144	18465	96.1 °F	99.9 °F
7/20/17 15:00	135	145	18747	96.1 °F	99.9 °F
7/20/17 16:00	132	149	18898	97.0 °F	102.8 °F
7/20/17 17:00	117	146	18936	97.0 °F	102.2 °F
7/20/17 18:00	125	146	18862	96.1 °F	101.0 °F
7/20/17 19:00	136	146	18608	93.0 °F	97.9 °F
7/20/17 20:00	137	147	18071	90.0 °F	96.4 °F
7/20/17 21:00	137	147	17539	86.0 °F	93.0 °F
7/20/17 22:00	137	147	16832	82.9 °F	88.8 °F
7/20/17 23:00	137	147	15559	81.0 °F	85.2 °F
7/21/17 0:00	114	114	14285	81.0 °F	85.2 °F
7/21/17 1:00	97	97	13235	79.0 °F	-
7/21/17 2:00	96	98	12355	79.0 °F	-
7/21/17 3:00	98	97	11687	78.1 °F	-
7/21/17 4:00	99	97	11249	78.1 °F	-
7/21/17 5:00	99	97	11150	77.0 °F	-
7/21/17 6:00	99	99	11449	75.9 °F	-
7/21/17 7:00	110	111	11904	75.0 °F	-
7/21/17 8:00	134	143	12837	79.0 °F	-
7/21/17 9:00	136	146	13848	84.0 °F	89.6 °F
7/21/17 10:00	137	145	14946	89.1 °F	96.0 °F
7/21/17 11:00	136	145	16114	91.9 °F	97.4 °F
7/21/17 12:00	137	145	17008	95.0 °F	101.3 °F
7/21/17 13:00	135	145	17756	95.0 °F	101.3 °F
7/21/17 14:00	136	145	18349	93.0 °F	99.0 °F
7/21/17 15:00	136	145	18483	97.0 °F	102.2 °F
7/21/17 16:00	137	145	18595	97.0 °F	102.2 °F
7/21/17 17:00	136	145	18671	96.1 °F	101.0 °F
7/21/17 18:00	137	146	18524	97.0 °F	102.8 °F
7/21/17 19:00	137	146	18046	95.0 °F	99.5 °F
7/21/17 20:00	138	147	17463	91.0 °F	99.3 °F
7/21/17 21:00	138	147	16998	86.0 °F	93.0 °F
7/21/17 22:00	138	147	16372	89.1 °F	94.1 °F
7/21/17 23:00	139	147	15343	86.0 °F	89.4 °F
7/22/17 0:00	113	116	14105	82.0 °F	85.9 °F
7/22/17 1:00	96	99	13027	82.0 °F	86.3 °F
7/22/17 2:00	97	97	12217	79.0 °F	-
7/22/17 3:00	98	96	11611	79.0 °F	-
7/22/17 4:00	99	97	11249	78.1 °F	-
7/22/17 5:00	100	98	10919	75.0 °F	-
7/22/17 6:00	100	98	10941	75.9 °F	-
7/22/17 7:00	100	98	10909	77.0 °F	-
7/22/17 8:00	100	99	11612	81.0 °F	85.2 °F
7/22/17 9:00	99	98	12748	86.0 °F	91.5 °F
7/22/17 10:00	99	99	13990	88.0 °F	93.8 °F

7/22/17 11:00	111	107	15196	91.9 °F	98.4 °F
7/22/17 12:00	120	121	16177	91.0 °F	97.6 °F
7/22/17 13:00	137	144	16916	93.0 °F	99.0 °F
7/22/17 14:00	136	146	17526	96.1 °F	101.0 °F
7/22/17 15:00	135	146	17622	99.0 °F	105.5 °F
7/22/17 16:00	136	145	17306	99.0 °F	106.2 °F
7/22/17 17:00	136	145	17335	100.0 °F	107.0 °F
7/22/17 18:00	136	146	17145	100.0 °F	107.0 °F
7/22/17 19:00	138	146	16451	98.1 °F	103.0 °F
7/22/17 20:00	138	146	15830	95.0 °F	99.5 °F
7/22/17 21:00	139	146	15584	90.0 °F	100.2 °F
7/22/17 22:00	139	147	15045	87.1 °F	97.3 °F
7/22/17 23:00	104	115	14073	84.0 °F	92.6 °F
7/23/17 0:00	100	99	13110	86.0 °F	96.0 °F
7/23/17 1:00	100	98	12257	84.0 °F	91.2 °F
7/23/17 2:00	100	98	11624	78.1 °F	-
7/23/17 3:00	99	98	11118	77.0 °F	-
7/23/17 4:00	98	98	10849	78.1 °F	-
7/23/17 5:00	97	98	10603	77.0 °F	-
7/23/17 6:00	97	99	10579	77.0 °F	-
7/23/17 7:00	99	99	10470	75.0 °F	-
7/23/17 8:00	98	99	11010	79.0 °F	-
7/23/17 9:00	99	99	12114	82.0 °F	88.6 °F
7/23/17 10:00	99	98	13153	84.0 °F	91.9 °F
7/23/17 11:00	99	99	14204	89.1 °F	98.0 °F
7/23/17 12:00	113	115	15069	90.0 °F	96.4 °F
7/23/17 13:00	134	140	15694	91.9 °F	97.4 °F
7/23/17 14:00	136	147	15916	93.9 °F	99.1 °F
7/23/17 15:00	136	145	16110	93.9 °F	99.1 °F
7/23/17 16:00	136	145	16261	95.0 °F	99.5 °F
7/23/17 17:00	135	145	16408	96.1 °F	96.9 °F
7/23/17 18:00	128	129	16502	95.0 °F	99.0 °F
7/23/17 19:00	126	119	16396	90.0 °F	95.4 °F
7/23/17 20:00	126	119	15913	87.1 °F	92.0 °F
7/23/17 21:00	108	102	15361	82.9 °F	87.5 °F
7/23/17 22:00	99	99	14680	82.9 °F	88.0 °F
7/23/17 23:00	99	99	13537	82.0 °F	86.7 °F
7/24/17 0:00	99	99	12389	77.0 °F	-
7/24/17 1:00	97	99	11385	75.0 °F	-
7/24/17 2:00	99	99	10709	75.9 °F	-
7/24/17 3:00	100	96	10457	75.0 °F	-
7/24/17 4:00	101	97	10216	73.0 °F	-
7/24/17 5:00	101	99	10319	72.0 °F	-
7/24/17 6:00	101	99	10615	72.0 °F	-
7/24/17 7:00	101	99	11118	73.0 °F	-
7/24/17 8:00	101	99	11715	73.9 °F	-
7/24/17 9:00	101	99	12512	75.9 °F	-

7/24/17 10:00	101	99	13392	79.0 °F	-
7/24/17 11:00	101	99	14380	82.9 °F	87.5 °F
7/24/17 12:00	100	99	15111	87.1 °F	92.8 °F
7/24/17 13:00	101	103	15801	88.0 °F	92.1 °F
7/24/17 14:00	111	128	16479	91.0 °F	95.6 °F
7/24/17 15:00	127	120	16969	91.9 °F	96.9 °F
7/24/17 16:00	133	111	17369	93.0 °F	96.4 °F
7/24/17 17:00	134	137	17598	93.9 °F	96.1 °F
7/24/17 18:00	131	112	17538	93.0 °F	95.9 °F
7/24/17 19:00	128	124	17451	91.9 °F	95.4 °F
7/24/17 20:00	126	127	17043	87.1 °F	92.8 °F
7/24/17 21:00	121	116	16425	82.0 °F	86.3 °F
7/24/17 22:00	120	115	15757	80.1 °F	83.6 °F
7/24/17 23:00	120	115	14512	81.0 °F	84.9 °F
7/25/17 0:00	119	114	13132	82.9 °F	87.5 °F
7/25/17 1:00	109	117	12120	82.0 °F	86.3 °F
7/25/17 2:00	111	131	11434	80.1 °F	83.6 °F
7/25/17 3:00	112	131	10903	78.1 °F	-
7/25/17 4:00	88	129	10531	77.0 °F	-
7/25/17 5:00	85	123	10442	75.0 °F	-
7/25/17 6:00	85	110	10760	73.0 °F	-
7/25/17 7:00	86	112	11166	73.0 °F	-
7/25/17 8:00	82	95	11748	75.9 °F	-
7/25/17 9:00	71	57	12389	77.0 °F	-
7/25/17 10:00	47	32	12987	78.1 °F	-
7/25/17 11:00	41	34	13615	78.1 °F	-
7/25/17 12:00	48	44	14184	81.0 °F	81.7 °F
7/25/17 13:00	50	45	14581	84.0 °F	84.5 °F
7/25/17 14:00	50	16	15037	84.9 °F	85.4 °F
7/25/17 15:00	49	0	15349	86.0 °F	86.8 °F
7/25/17 16:00	5	0	15601	86.0 °F	85.7 °F
7/25/17 17:00	0	0	15711	87.1 °F	86.7 °F
7/25/17 18:00	0	0	15691	84.9 °F	84.4 °F
7/25/17 19:00	0	0	15415	82.0 °F	82.7 °F
7/25/17 20:00	0	0	14710	78.1 °F	-
7/25/17 21:00	0	0	13977	75.0 °F	-
7/25/17 22:00	0	0	13442	73.0 °F	-
7/25/17 23:00	0	0	12234	71.1 °F	-
7/26/17 0:00	0	0	11050	71.1 °F	-
7/26/17 1:00	0	0	10201	70.0 °F	-
7/26/17 2:00	0	0	9565	69.1 °F	-
7/26/17 3:00	0	0	9180	70.0 °F	-
7/26/17 4:00	0	0	9005	68.0 °F	-
7/26/17 5:00	0	0	9098	68.0 °F	-
7/26/17 6:00	0	0	9498	68.0 °F	-
7/26/17 7:00	0	0	10031	69.1 °F	-
7/26/17 8:00	0	0	10713	71.1 °F	-

7/26/17 9:00	0	0	11320	75.9 °F	-
7/26/17 10:00	0	0	11962	77.0 °F	-
7/26/17 11:00	0	0	12729	79.0 °F	-
7/26/17 12:00	0	0	13475	82.9 °F	84.6 °F
7/26/17 13:00	0	0	14116	81.0 °F	82.5 °F
7/26/17 14:00	0	0	14626	84.9 °F	85.9 °F
7/26/17 15:00	0	0	15110	88.0 °F	88.7 °F
7/26/17 16:00	0	0	15463	84.9 °F	85.9 °F
7/26/17 17:00	0	0	15828	84.9 °F	85.4 °F
7/26/17 18:00	0	0	15937	87.1 °F	87.8 °F
7/26/17 19:00	0	0	15753	84.0 °F	85.8 °F
7/26/17 20:00	0	0	15148	80.1 °F	82.3 °F
7/26/17 21:00	0	0	14504	77.0 °F	-
7/26/17 22:00	0	0	13907	73.9 °F	-
7/26/17 23:00	0	0	12728	73.0 °F	-
7/27/17 0:00	0	0	11587	73.0 °F	-

ATTACHMENT 2

Copy of Raw Data -
Calculated Data Report

Date/Hour	YT00 PGMW1 Value	YT00 PGMW2 Value	YT00 QHIPM Value	YT00 QHIPM Missing	YT00 QNOXE Value	YT00 QNOXE Missing	YT00 QSO2	YT00 QSO2M Value	YT00 QSO2M Missing	YT00 QCO2	YT00 QCO2M	YT00 QCO2M Missing	0
07/10/2017 00	0	0	0	FALSE	0	FALSE	0	0	FALSE	0	0	FALSE	0
07/10/2017 01	0	0	0	FALSE	0	FALSE	0	0	FALSE	0	0	FALSE	0
07/10/2017 02	0	0	0	FALSE	0	FALSE	0	0	FALSE	0	0	FALSE	0
07/10/2017 03	0	0	0	FALSE	0	FALSE	0	0	FALSE	0	0	FALSE	0
07/10/2017 04	0	0	4.4	FALSE	0.141	FALSE	84.3	11.2	FALSE	1	0.5	FALSE	0
07/10/2017 05	0	0	1.1	FALSE	0.158	FALSE	52.6	0.7	FALSE	2.3	0.1	FALSE	0
07/10/2017 06	0	0	0	FALSE	0	FALSE	0	0	FALSE	0	0	FALSE	0
07/10/2017 07	0	0	0	FALSE	0	FALSE	0	0	FALSE	0	0	FALSE	0
07/10/2017 08	0	0	0	FALSE	0.001	FALSE	0	0	FALSE	0	0	FALSE	0
07/10/2017 09	0	0	0	FALSE	0.001	FALSE	0	0	FALSE	0	0	FALSE	0
07/10/2017 10	0	0	0	FALSE	0.001	FALSE	0	0	FALSE	0	0	FALSE	0
07/10/2017 11	0	0	1	FALSE	0.064	TRUE	31.1	63.4	TRUE	0	0	FALSE	56
07/10/2017 12	0	0	14	FALSE	0.064	TRUE	31.1	65.2	TRUE	0.2	1.4	FALSE	60
07/10/2017 13	0	0	30.6	FALSE	0.064	TRUE	31.1	71	TRUE	0.4	3.1	FALSE	60
07/10/2017 14	0	0	40.3	FALSE	0.064	TRUE	31.1	74.9	TRUE	0.5	4.1	FALSE	60
07/10/2017 15	0	0	59.2	FALSE	0.064	TRUE	31.1	78.6	TRUE	0.7	6.1	FALSE	60
07/10/2017 16	0	0	61.2	FALSE	0.064	TRUE	31.1	81.2	TRUE	0.7	6.3	FALSE	60
07/10/2017 17	0	0	340	FALSE	0.064	TRUE	31.1	83.1	TRUE	3.8	34.9	FALSE	60
07/10/2017 18	0	0	521.5	TRUE	0.064	TRUE	0	0	FALSE	5.8	53.5	TRUE	60
07/10/2017 19	0	0	525.7	TRUE	0.064	TRUE	0	0	FALSE	5.8	53.9	TRUE	60
07/10/2017 20	0	0	528.3	TRUE	0.064	TRUE	0	0	FALSE	5.8	54.2	TRUE	60
07/10/2017 21	0	0	526.9	TRUE	0.064	TRUE	0	0	FALSE	5.8	54.1	TRUE	60
07/10/2017 22	0	0	529.1	TRUE	0.064	TRUE	0	0	FALSE	5.8	54.3	TRUE	60
07/10/2017 23	0	0	529.2	TRUE	0.064	TRUE	0	0	FALSE	5.8	54.3	TRUE	60
07/11/2017 00	0	0	540.4	TRUE	0.064	TRUE	0.3	0.8	FALSE	5.8	55.4	TRUE	60
07/11/2017 01	0	0	581.6	TRUE	0.064	TRUE	1.1	3.3	FALSE	5.8	59.7	TRUE	60
07/11/2017 02	0	0	586.7	TRUE	0.064	TRUE	0.6	1.8	FALSE	5.8	60.2	TRUE	60
07/11/2017 03	0	0	595.2	TRUE	0.064	TRUE	0.7	2.1	FALSE	5.8	61.1	TRUE	60
07/11/2017 04	0	9	593.2	TRUE	0.064	TRUE	40.8	124.7	FALSE	5.8	60.9	TRUE	60
07/11/2017 05	0	16	583.2	TRUE	0.064	TRUE	101.5	305	FALSE	5.8	59.8	TRUE	60
07/11/2017 06	0	44	579	TRUE	0.288	TRUE	189.8	566.2	FALSE	5.8	59.4	TRUE	60
07/11/2017 07	0	65	600.6	TRUE	0.536	TRUE	275.2	851.5	TRUE	5.8	61.6	TRUE	60
07/11/2017 08	0	88	936.8	FALSE	0.342	FALSE	360.6	1310.9	FALSE	7.7	96.1	FALSE	60
07/11/2017 09	0	111	1046.9	FALSE	0.419	FALSE	411.1	1648.7	FALSE	7.8	107.4	FALSE	60
07/11/2017 10	0	101	951.9	FALSE	0.443	FALSE	443	1657.9	FALSE	7.6	97.7	FALSE	60
07/11/2017 11	0	99	946.7	FALSE	0.443	FALSE	444.9	1656	FALSE	7.6	97.1	FALSE	60
07/11/2017 12	0	117	1051.6	FALSE	0.479	FALSE	462.8	1888.6	FALSE	7.7	107.9	FALSE	60
07/11/2017 13	0	136	1187.9	FALSE	0.528	FALSE	463.3	2081.7	FALSE	7.9	121.9	FALSE	60
07/11/2017 14	0	139	1197.4	FALSE	0.52	FALSE	473	2115.4	FALSE	8	122.9	FALSE	60
07/11/2017 15	0	140	1184.2	FALSE	0.525	FALSE	482.9	2135.9	FALSE	8	121.5	FALSE	60
07/11/2017 16	0	140	1206.6	FALSE	0.512	FALSE	485.9	2136.3	FALSE	8.2	123.8	FALSE	60
07/11/2017 17	0	140	1184.2	FALSE	0.524	FALSE	486.2	2150.4	FALSE	8	121.5	FALSE	60
07/11/2017 18	0	134	1160.4	FALSE	0.51	FALSE	487.3	2111.9	FALSE	8	119.1	FALSE	60
07/11/2017 19	0	115	1049.9	FALSE	0.528	FALSE	481.4	1936.2	FALSE	7.8	107.7	FALSE	60
07/11/2017 20	0	119	1096.7	FALSE	0.506	FALSE	485.6	1989.1	FALSE	8	112.5	FALSE	60
07/11/2017 21	0	107	989.7	FALSE	0.526	FALSE	458.9	1785.6	FALSE	7.6	101.5	FALSE	60
07/11/2017 22	0	99	917.7	FALSE	0.516	FALSE	450	1690.3	FALSE	7.3	94.2	FALSE	60
07/11/2017 23	0	100	946.5	FALSE	0.506	FALSE	448.4	1690.8	FALSE	7.5	97.1	FALSE	60
07/12/2017 00	0	100	950.8	FALSE	0.502	FALSE	442.2	1675.1	FALSE	7.5	97.6	FALSE	60
07/12/2017 01	0	100	954.5	FALSE	0.507	FALSE	437.6	1664	FALSE	7.5	97.9	FALSE	60
07/12/2017 02	0	100	954.7	FALSE	0.508	FALSE	430.1	1635.9	FALSE	7.5	98	FALSE	60
07/12/2017 03	0	100	960.2	FALSE	0.51	FALSE	424.6	1624.3	FALSE	7.5	98.5	FALSE	60
07/12/2017 04	0	100	960.9	FALSE	0.51	FALSE	417.6	1598.7	FALSE	7.5	98.6	FALSE	60
07/12/2017 05	0	100	948.4	FALSE	0.515	FALSE	404.7	1549.8	FALSE	7.4	97.3	FALSE	60
07/12/2017 06	0	100	948.3	FALSE	0.519	FALSE	400.5	1533.5	FALSE	7.4	97.3	FALSE	60
07/12/2017 07	0	100	947.5	FALSE	0.522	FALSE	395.6	1513.6	FALSE	7.4	97.2	FALSE	60
07/12/2017 08	0	100	958.5	FALSE	0.515	FALSE	396.3	1513.3	FALSE	7.5	98.3	FALSE	60

07/12/2017 09	0	100	991.9	FALSE	0.493	FALSE	395.5	1502.9	FALSE	7.8	101.8	FALSE	60
07/12/2017 10	0	100	1001	FALSE	0.49	FALSE	394	1491.7	FALSE	7.9	102.7	FALSE	60
07/12/2017 11	0	100	971.9	FALSE	0.509	FALSE	391.8	1477.7	FALSE	7.7	99.7	FALSE	60
07/12/2017 12	0	102	992	FALSE	0.506	FALSE	392.3	1490.8	FALSE	7.8	101.8	FALSE	60
07/12/2017 13	0	114	895.3	TRUE	0.507	TRUE	336.9	1365.6	TRUE	6.6	91.9	TRUE	60
07/12/2017 14	0	129	926.4	TRUE	0.511	TRUE	336.9	1413	TRUE	6.6	95	TRUE	60
07/12/2017 15	0	142	961.6	TRUE	0.511	TRUE	336.9	1466.6	TRUE	6.6	98.7	TRUE	60
07/12/2017 16	0	147	1020.7	TRUE	0.511	TRUE	336.9	1556.7	TRUE	6.6	104.7	TRUE	60
07/12/2017 17	0	147	1018.5	TRUE	0.511	TRUE	336.9	1553.4	TRUE	6.6	104.5	TRUE	60
07/12/2017 18	0	147	1305.7	TRUE	0.511	TRUE	336.9	1991.6	TRUE	6.6	134	TRUE	60
07/12/2017 19	0	147	1425.5	TRUE	0.511	TRUE	336.9	2174.3	TRUE	6.6	146.3	TRUE	60
07/12/2017 20	0	148	1434.8	TRUE	0.475	TRUE	336.9	2188.4	TRUE	6.6	147.2	TRUE	60
07/12/2017 21	0	144	1430.7	TRUE	0.511	TRUE	336.9	2182.2	TRUE	6.6	146.8	TRUE	60
07/12/2017 22	0	102	1223.8	TRUE	0.507	TRUE	336.9	1866.6	TRUE	6.6	125.6	TRUE	60
07/12/2017 23	0	99	1215.4	TRUE	0.507	TRUE	336.9	1853.8	TRUE	6.6	124.7	TRUE	60
07/13/2017 00	0	98	1218.6	TRUE	0.507	TRUE	336.9	1858.7	TRUE	6.6	125	TRUE	60
07/13/2017 01	0	98	1284.8	TRUE	0.507	TRUE	336.9	1959.6	TRUE	6.6	131.8	TRUE	60
07/13/2017 02	0	98	1318.8	TRUE	0.507	TRUE	336.9	2011.4	TRUE	6.6	135.3	TRUE	60
07/13/2017 03	0	98	1324.3	TRUE	0.507	TRUE	336.9	2019.9	TRUE	6.6	135.9	TRUE	60
07/13/2017 04	0	98	1324.3	TRUE	0.507	TRUE	336.9	2019.8	TRUE	6.6	135.9	TRUE	60
07/13/2017 05	0	98	1308.1	TRUE	0.507	TRUE	336.9	1995.2	TRUE	6.6	134.2	TRUE	60
07/13/2017 06	0	98	1303.5	TRUE	0.507	TRUE	336.9	1988.2	TRUE	6.6	133.7	TRUE	60
07/13/2017 07	0	98	1300.8	TRUE	0.507	TRUE	336.9	1984	TRUE	6.6	133.5	TRUE	60
07/13/2017 08	0	100	1303.3	TRUE	0.507	TRUE	336.9	1987.9	TRUE	6.6	133.7	TRUE	60
07/13/2017 09	0	129	1471.4	TRUE	0.511	TRUE	336.9	2244.2	TRUE	6.6	151	TRUE	60
07/13/2017 10	0	145	1546.2	TRUE	0.511	TRUE	336.9	2358.4	TRUE	6.6	158.6	TRUE	60
07/13/2017 11	0	146	1537	TRUE	0.511	TRUE	336.9	2344.3	TRUE	6.6	157.7	TRUE	60
07/13/2017 12	0	146	1280.9	FALSE	0.48	FALSE	281.4	1994.5	FALSE	5.4	131.4	FALSE	60
07/13/2017 13	0	145	1280.9	FALSE	0.457	FALSE	285.2	2021.3	FALSE	5.4	131.4	FALSE	60
07/13/2017 14	0	144	1324.8	FALSE	0.439	FALSE	299.1	2114.3	FALSE	5.6	135.9	FALSE	60
07/13/2017 15	0	144	1349.8	FALSE	0.443	FALSE	290.1	2052.7	FALSE	5.7	138.5	FALSE	60
07/13/2017 16	34	144	1627.7	FALSE	0.438	FALSE	326.7	2302.9	FALSE	6.9	167	FALSE	60
07/13/2017 17	52	144	1800.9	FALSE	0.419	FALSE	377.8	2675	FALSE	7.6	184.8	FALSE	60
07/13/2017 18	68	143	2029.2	FALSE	0.397	FALSE	467.2	3372.3	FALSE	8.4	208.2	FALSE	60
07/13/2017 19	84	143	2245.9	FALSE	0.418	FALSE	502.4	3920.4	FALSE	8.6	230.4	FALSE	60
07/13/2017 20	102	143	2399.8	FALSE	0.463	FALSE	538.4	4337.9	FALSE	8.9	246.2	FALSE	60
07/13/2017 21	101	135	2287.5	FALSE	0.462	FALSE	532.4	4135.1	FALSE	8.8	234.7	FALSE	60
07/13/2017 22	100	104	2019.9	FALSE	0.47	FALSE	511.6	3632.7	FALSE	8.5	207.2	FALSE	60
07/13/2017 23	100	99	1991.6	FALSE	0.477	FALSE	509.2	3564.9	FALSE	8.5	204.3	FALSE	60
07/14/2017 00	100	98	1971	FALSE	0.49	FALSE	507.9	3561	FALSE	8.4	202.2	FALSE	60
07/14/2017 01	100	98	1972.4	FALSE	0.494	FALSE	506.4	3552.9	FALSE	8.4	202.4	FALSE	60
07/14/2017 02	101	98	1980.5	FALSE	0.497	FALSE	504.9	3557	FALSE	8.4	203.2	FALSE	60
07/14/2017 03	101	98	1984.6	FALSE	0.497	FALSE	503.8	3556.6	FALSE	8.4	203.6	FALSE	60
07/14/2017 04	101	98	1986.4	FALSE	0.498	FALSE	504.2	3562.7	FALSE	8.4	203.8	FALSE	60
07/14/2017 05	101	99	1962.6	FALSE	0.502	FALSE	498	3518.6	FALSE	8.3	201.4	FALSE	60
07/14/2017 06	101	99	1984.9	FALSE	0.495	FALSE	498.3	3518.3	FALSE	8.4	203.7	FALSE	60
07/14/2017 07	101	99	1985	FALSE	0.496	FALSE	495.9	3501.5	FALSE	8.4	203.7	FALSE	60
07/14/2017 08	101	100	1991	FALSE	0.496	FALSE	493.3	3493.7	FALSE	8.4	204.3	FALSE	60
07/14/2017 09	130	136	2582.9	FALSE	0.471	FALSE	523.9	4543.1	FALSE	8.9	265	FALSE	60
07/14/2017 10	147	145	2755	FALSE	0.479	FALSE	524	4846.7	FALSE	8.9	282.7	FALSE	60
07/14/2017 11	147	145	2761.4	FALSE	0.473	FALSE	522.9	4793.8	FALSE	9	283.3	FALSE	60
07/14/2017 12	147	145	2744.1	FALSE	0.468	FALSE	524.6	4779.2	FALSE	9	281.5	FALSE	60
07/14/2017 13	147	145	2732.9	FALSE	0.466	FALSE	523.7	4751.6	FALSE	9	280.4	FALSE	60
07/14/2017 14	146	144	2745.3	FALSE	0.459	FALSE	526	4741.4	FALSE	9.1	281.7	FALSE	60
07/14/2017 15	144	144	2730.5	FALSE	0.437	FALSE	539.4	4732	FALSE	9.3	280.1	FALSE	60
07/14/2017 16	136	135	2543.6	FALSE	0.44	FALSE	533.3	4454	FALSE	9.1	261	FALSE	60
07/14/2017 17	121	120	2322.2	FALSE	0.428	FALSE	528.3	4073	FALSE	9	238.3	FALSE	60
07/14/2017 18	125	124	2369.6	FALSE	0.442	FALSE	528.5	4157.7	FALSE	9	243.1	FALSE	60
07/14/2017 19	108	101	2047.6	FALSE	0.45	FALSE	501	3523.2	FALSE	8.7	210.1	FALSE	60

07/14/2017 20	99	99	1950.1	FALSE	0.47	FALSE
07/14/2017 21	69	99	1623.4	FALSE	0.462	FALSE
07/14/2017 22	0	98	965.2	FALSE	0.434	FALSE
07/14/2017 23	0	77	794.2	FALSE	0.293	FALSE
07/15/2017 00	0	3	388.8	FALSE	0.152	FALSE
07/15/2017 01	0	0	51	FALSE	0	FALSE
07/15/2017 02	0	0	52.5	FALSE	0	FALSE
07/15/2017 03	0	0	56.2	FALSE	0	FALSE
07/15/2017 04	0	0	259	FALSE	0.148	FALSE
07/15/2017 05	0	0	421.6	FALSE	0.156	FALSE
07/15/2017 06	0	0	30.7	FALSE	0	FALSE
07/15/2017 07	0	0	30.6	FALSE	0	FALSE
07/15/2017 08	0	0	30.5	FALSE	0.001	FALSE
07/15/2017 09	0	0	20.4	FALSE	0	FALSE
07/15/2017 10	0	0	14.4	FALSE	0	FALSE
07/15/2017 11	0	0	9.8	FALSE	0.001	FALSE
07/15/2017 12	0	0	0.1	FALSE	0	FALSE
07/15/2017 13	0	0	0	FALSE	0	FALSE
07/15/2017 14	0	0	0.1	FALSE	0	FALSE
07/15/2017 15	0	0	0.1	FALSE	0	FALSE
07/15/2017 16	0	0	0	FALSE	0	FALSE
07/15/2017 17	0	0	0.3	FALSE	0	FALSE
07/15/2017 18	0	0	0.5	FALSE	0	FALSE
07/15/2017 19	0	0	0.7	FALSE	0	FALSE
07/15/2017 20	0	0	0.6	FALSE	0	FALSE
07/15/2017 21	0	0	0.5	FALSE	0	FALSE
07/15/2017 22	0	0	0.7	FALSE	0	FALSE
07/15/2017 23	0	0	0.7	FALSE	0	FALSE
07/16/2017 00	0	0	0.8	FALSE	0	FALSE
07/16/2017 01	0	0	0.6	FALSE	0	FALSE
07/16/2017 02	0	0	0.5	FALSE	0	FALSE
07/16/2017 03	0	0	0.5	FALSE	0	FALSE
07/16/2017 04	0	0	12.3	FALSE	0.142	FALSE
07/16/2017 05	0	0	4.2	FALSE	0.152	FALSE
07/16/2017 06	0	0	0	FALSE	0	FALSE
07/16/2017 07	0	0	0	FALSE	0	FALSE
07/16/2017 08	0	0	0	FALSE	0	FALSE
07/16/2017 09	0	0	0	FALSE	0	FALSE
07/16/2017 10	0	0	0	FALSE	0	FALSE
07/16/2017 11	0	0	0	FALSE	0	FALSE
07/16/2017 12	0	0	0	FALSE	0	FALSE
07/16/2017 13	0	0	0	FALSE	0	FALSE
07/16/2017 14	0	0	0	FALSE	0	FALSE
07/16/2017 15	0	0	0	FALSE	0	FALSE
07/16/2017 16	0	0	0	FALSE	0	FALSE
07/16/2017 17	0	0	0	FALSE	0	FALSE
07/16/2017 18	0	0	0	FALSE	0	FALSE
07/16/2017 19	0	0	0	FALSE	0	FALSE
07/16/2017 20	0	0	0	FALSE	0	FALSE
07/16/2017 21	0	0	0	FALSE	0	FALSE
07/16/2017 22	0	0	0	FALSE	0	FALSE
07/16/2017 23	0	0	0	FALSE	0	FALSE
07/17/2017 00	0	0	0	FALSE	0	FALSE
07/17/2017 01	0	0	0	FALSE	0	FALSE
07/17/2017 02	0	0	0	FALSE	0	FALSE
07/17/2017 03	0	0	0	FALSE	0	FALSE
07/17/2017 04	0	0	6.5	FALSE	0.141	FALSE
07/17/2017 05	0	0	1.4	FALSE	0.152	FALSE
07/17/2017 06	0	0	0	FALSE	0	FALSE

488	3345.3	FALSE	8.5	200.1	FALSE	60
395.4	2557.3	FALSE	7.5	166.6	FALSE	60
236.7	1516.9	FALSE	4.5	99	FALSE	60
154.8	1113.2	FALSE	3.3	81.5	FALSE	60
54.5	372.5	FALSE	1.7	39.9	FALSE	11
0	0	FALSE	0.2	5.2	FALSE	0
0	0	FALSE	0.2	5.4	FALSE	0
0	0	FALSE	0.2	5.8	FALSE	0
88.4	456.1	FALSE	1.5	26.6	FALSE	0
48	215.9	FALSE	2.8	43.3	FALSE	0
0	0	FALSE	0.2	3.2	FALSE	0
0	0	FALSE	0.2	3.1	FALSE	0
0	0	FALSE	0.2	3.1	FALSE	0
0	0	FALSE	0.2	2.1	FALSE	0
0	0	FALSE	0.2	1.5	FALSE	0
0	0	FALSE	0.2	1	FALSE	0
0	0	FALSE	0.2	0	FALSE	0
0	0	FALSE	0.2	0	FALSE	0
0	0	FALSE	0.2	0	FALSE	0
0	0	FALSE	0.2	0	FALSE	0
0	0	FALSE	0.2	0	FALSE	0
0	0	FALSE	0.2	0	FALSE	0
0	0	FALSE	0.2	0.1	FALSE	0
0	0	FALSE	0.2	0.1	FALSE	0
0	0	FALSE	0.2	0.1	FALSE	0
0	0	FALSE	0.2	0.1	FALSE	0
0	0	FALSE	0.2	0.1	FALSE	0
0	0	FALSE	0.2	0.1	FALSE	0
0	0	FALSE	0.2	0.1	FALSE	0
0	0	FALSE	0.2	0.1	FALSE	0
87.8	21.5	FALSE	1.5	1.3	FALSE	0
47.3	2.1	FALSE	2.8	0.4	FALSE	0
0	0	FALSE	0.2	0	FALSE	0
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0	0	FALSE	0.2	0	FALSE	0
0	0	FALSE	0.2	0	FALSE	0
0	0	FALSE	0.2	0	FALSE	0
0	0	FALSE	0.2	0	FALSE	0
87.6	11.4	FALSE	1.5	0.7	FALSE	0
47.2	0.7	FALSE	2.9	0.1	FALSE	0
0	0	FALSE	0.2	0	FALSE	0

07/17/2017 07	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 08	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 09	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 10	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 11	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 12	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 13	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 14	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 15	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 16	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 17	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 18	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 19	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 20	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 21	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 22	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/17/2017 23	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/18/2017 00	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/18/2017 01	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/18/2017 02	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/18/2017 03	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/18/2017 04	0	0	7.1	FALSE	0.141	FALSE	87.7	11.7	FALSE	1.6	0.7	FALSE	0
07/18/2017 05	0	0	1.1	FALSE	0.151	FALSE	47.2	0.6	FALSE	2.9	0.1	FALSE	0
07/18/2017 06	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/18/2017 07	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/18/2017 08	0	0	0	FALSE	0	FALSE	0	0	FALSE	0.2	0	FALSE	0
07/18/2017 09	0	0	0.7	FALSE	0	FALSE	0	0	FALSE	0.2	0.1	FALSE	0
07/18/2017 10	0	0	49.7	FALSE	0	FALSE	0	0	FALSE	0.3	5.1	FALSE	0
07/18/2017 11	0	0	78.8	FALSE	0.001	FALSE	0	0	FALSE	0.3	8.1	FALSE	0
07/18/2017 12	0	0	45.1	FALSE	0	FALSE	0	0	FALSE	0.3	4.6	FALSE	5
07/18/2017 13	0	0	44.7	FALSE	0	FALSE	0	0	FALSE	0.3	4.6	FALSE	60
07/18/2017 14	0	0	46	FALSE	0.001	FALSE	0	0	FALSE	0.3	4.7	FALSE	60
07/18/2017 15	0	0	123.4	FALSE	0.009	FALSE	0	0	FALSE	0.8	12.7	FALSE	60
07/18/2017 16	0	0	219.6	FALSE	0.026	FALSE	0	0	FALSE	1.3	22.5	FALSE	60
07/18/2017 17	0	0	204.4	FALSE	0.029	FALSE	0	0	FALSE	1.2	21	FALSE	60
07/18/2017 18	0	0	204.5	FALSE	0.034	FALSE	0	0	FALSE	1.2	21	FALSE	60
07/18/2017 19	0	0	225	FALSE	0.038	FALSE	0	0	FALSE	1.3	23.1	FALSE	60
07/18/2017 20	0	0	230.5	FALSE	0.037	FALSE	0	0	FALSE	1.3	23.7	FALSE	60
07/18/2017 21	0	0	248.7	FALSE	0.043	FALSE	0	0	FALSE	1.4	25.5	FALSE	60
07/18/2017 22	0	2	301.3	FALSE	0.078	FALSE	7.6	40.2	FALSE	1.7	30.9	FALSE	60
07/18/2017 23	0	9	400.8	FALSE	0.204	FALSE	45.1	234.8	FALSE	2.3	41.1	FALSE	60
07/19/2017 00	0	31	560.8	FALSE	0.249	FALSE	105.3	551.4	FALSE	3.2	57.5	FALSE	60
07/19/2017 01	0	73	838.6	FALSE	0.286	FALSE	192.4	1071.4	FALSE	4.5	86	FALSE	60
07/19/2017 02	0	96	985.5	FALSE	0.41	FALSE	238	1460.1	FALSE	4.8	101.1	FALSE	60
07/19/2017 03	0	103	1036.1	FALSE	0.428	FALSE	254.7	1577.1	FALSE	5	106.3	FALSE	60
07/19/2017 04	0	103	1056	FALSE	0.422	FALSE	251.4	1586.5	FALSE	5	108.3	FALSE	60
07/19/2017 05	9	101	1174.8	FALSE	0.436	FALSE	258.9	1652.4	FALSE	5.5	120.5	FALSE	60
07/19/2017 06	59	101	1609	FALSE	0.386	FALSE	396.3	2540.3	FALSE	7.5	165.1	FALSE	60
07/19/2017 07	92	101	1941.8	FALSE	0.366	FALSE	452.2	3161.1	FALSE	8.3	199.2	FALSE	60
07/19/2017 08	101	125	2254.2	FALSE	0.444	FALSE	493.7	3822.2	FALSE	8.7	231.3	FALSE	60
07/19/2017 09	117	143	2556.2	FALSE	0.425	FALSE	520.2	4366.3	FALSE	9.1	262.3	FALSE	60
07/19/2017 10	133	145	2680.3	FALSE	0.434	FALSE	524.7	4617.7	FALSE	9.1	275	FALSE	60
07/19/2017 11	136	144	2687.5	FALSE	0.423	FALSE	527.8	4607	FALSE	9.2	275.7	FALSE	60
07/19/2017 12	136	145	2700.2	FALSE	0.413	FALSE	529.3	4591.9	FALSE	9.3	277	FALSE	60
07/19/2017 13	136	145	2686.2	FALSE	0.42	FALSE	525.7	4586.4	FALSE	9.2	275.6	FALSE	60
07/19/2017 14	136	145	2690.9	FALSE	0.426	FALSE	524.1	4580.5	FALSE	9.2	276.1	FALSE	60
07/19/2017 15	136	145	2664.4	FALSE	0.436	FALSE	522.1	4567.7	FALSE	9.1	273.4	FALSE	60
07/19/2017 16	136	145	2653.5	FALSE	0.432	FALSE	521	4539.3	FALSE	9.1	272.2	FALSE	60
07/19/2017 17	137	145	2651.4	FALSE	0.431	FALSE	520.4	4530.6	FALSE	9.1	272	FALSE	60

07/19/2017 18	137	145	2642.6	FALSE	0.437	FALSE	513.6	4505.9	FALSE	9	271.1	FALSE	60
07/19/2017 19	137	146	2636.3	FALSE	0.434	FALSE	512.2	4483	FALSE	9	270.5	FALSE	60
07/19/2017 20	136	145	2624.2	FALSE	0.428	FALSE	512.4	4464.2	FALSE	9	269.2	FALSE	60
07/19/2017 21	136	145	2628.8	FALSE	0.428	FALSE	510.3	4453.7	FALSE	9	269.7	FALSE	60
07/19/2017 22	135	145	2622.2	FALSE	0.426	FALSE	508.3	4425.1	FALSE	9	269	FALSE	60
07/19/2017 23	119	120	2265.8	FALSE	0.415	FALSE	485.7	3779.7	FALSE	8.7	232.5	FALSE	60
07/20/2017 00	96	98	1905.6	FALSE	0.395	FALSE	469	3179.1	FALSE	8.4	195.5	FALSE	60
07/20/2017 01	95	98	1927.5	FALSE	0.398	FALSE	469	3177.8	FALSE	8.5	197.8	FALSE	60
07/20/2017 02	98	96	1906.8	FALSE	0.41	FALSE	463.5	3143.8	FALSE	8.4	195.6	FALSE	60
07/20/2017 03	98	93	1869.5	FALSE	0.419	FALSE	458.1	3083.2	FALSE	8.3	191.8	FALSE	60
07/20/2017 04	98	96	1918.7	FALSE	0.418	FALSE	459.8	3138.3	FALSE	8.4	196.9	FALSE	60
07/20/2017 05	98	99	1879.5	FALSE	0.426	FALSE	461	3157.2	FALSE	8.2	192.8	FALSE	60
07/20/2017 06	114	114	2136	FALSE	0.427	FALSE	482.9	3625.9	FALSE	8.5	219.2	FALSE	60
07/20/2017 07	135	137	2541.3	FALSE	0.447	FALSE	492.6	4250.7	FALSE	8.8	260.7	FALSE	60
07/20/2017 08	135	144	2564.4	FALSE	0.458	FALSE	501.5	4366.7	FALSE	8.8	263.1	FALSE	60
07/20/2017 09	135	145	2572.4	FALSE	0.469	FALSE	501.7	4382.1	FALSE	8.8	263.9	FALSE	60
07/20/2017 10	135	144	2584.3	FALSE	0.458	FALSE	507.7	4405	FALSE	8.9	265.2	FALSE	60
07/20/2017 11	134	144	2583.7	FALSE	0.461	FALSE	510.5	4428.2	FALSE	8.9	265.1	FALSE	60
07/20/2017 12	134	144	2576.7	FALSE	0.464	FALSE	509.4	4406.8	FALSE	8.9	264.4	FALSE	60
07/20/2017 13	135	144	2584	FALSE	0.468	FALSE	509	4415.7	FALSE	8.9	265.1	FALSE	60
07/20/2017 14	132	148	2595.5	FALSE	0.47	FALSE	506.1	4410.2	FALSE	8.9	266.3	FALSE	60
07/20/2017 15	116	145	2407.6	FALSE	0.482	FALSE	499.4	4129.5	FALSE	8.7	247	FALSE	60
07/20/2017 16	125	145	2525.9	FALSE	0.466	FALSE	509.6	4321.5	FALSE	8.9	259.2	FALSE	60
07/20/2017 17	136	146	2592.6	FALSE	0.47	FALSE	517.4	4503.5	FALSE	8.9	266	FALSE	60
07/20/2017 18	136	146	2609.6	FALSE	0.473	FALSE	515.4	4515.5	FALSE	8.9	267.7	FALSE	60
07/20/2017 19	137	146	2613.9	FALSE	0.472	FALSE	513.6	4507.1	FALSE	8.9	268.2	FALSE	60
07/20/2017 20	137	146	2615.9	FALSE	0.471	FALSE	515.4	4526.4	FALSE	8.9	268.4	FALSE	60
07/20/2017 21	137	146	2616.5	FALSE	0.467	FALSE	520.4	4571.4	FALSE	8.9	268.5	FALSE	60
07/20/2017 22	113	113	2124.9	FALSE	0.437	FALSE	500.6	3739.3	FALSE	8.5	218	FALSE	60
07/20/2017 23	96	97	1877.8	FALSE	0.4	FALSE	494.9	3345.5	FALSE	8.3	192.7	FALSE	60
07/21/2017 00	96	98	1908.5	FALSE	0.396	FALSE	497.9	3380.2	FALSE	8.4	195.8	FALSE	60
07/21/2017 01	98	96	1894.8	FALSE	0.409	FALSE	492.1	3356.7	FALSE	8.3	194.4	FALSE	60
07/21/2017 02	98	97	1886	FALSE	0.419	FALSE	488.1	3354.4	FALSE	8.2	193.5	FALSE	60
07/21/2017 03	99	97	1890.5	FALSE	0.424	FALSE	486.2	3349.3	FALSE	8.2	194	FALSE	60
07/21/2017 04	98	98	1898.9	FALSE	0.433	FALSE	480.6	3325.5	FALSE	8.2	194.8	FALSE	60
07/21/2017 05	110	111	2094.6	FALSE	0.463	FALSE	486.9	3671.5	FALSE	8.3	214.9	FALSE	60
07/21/2017 06	134	142	2562.9	FALSE	0.471	FALSE	511.2	4499.7	FALSE	8.7	263	FALSE	60
07/21/2017 07	136	145	2589.3	FALSE	0.462	FALSE	514.8	4578	FALSE	8.7	265.7	FALSE	60
07/21/2017 08	136	145	2610.2	FALSE	0.453	FALSE	518.1	4591.9	FALSE	8.8	267.8	FALSE	60
07/21/2017 09	135	144	2593.4	FALSE	0.448	FALSE	523.7	4611.5	FALSE	8.8	266.1	FALSE	60
07/21/2017 10	136	144	2613.9	FALSE	0.441	FALSE	527	4624.8	FALSE	8.9	268.2	FALSE	60
07/21/2017 11	135	144	2589.4	FALSE	0.453	FALSE	527.1	4634.5	FALSE	8.8	265.7	FALSE	60
07/21/2017 12	135	144	2597	FALSE	0.454	FALSE	526.6	4643.6	FALSE	8.8	266.5	FALSE	60
07/21/2017 13	136	144	2600	FALSE	0.455	FALSE	528.8	4668.3	FALSE	8.8	266.8	FALSE	60
07/21/2017 14	137	144	2604.5	FALSE	0.458	FALSE	528.4	4672.9	FALSE	8.8	267.2	FALSE	60
07/21/2017 15	136	144	2619.7	FALSE	0.45	FALSE	530.4	4665	FALSE	8.9	268.8	FALSE	60
07/21/2017 16	136	145	2628.2	FALSE	0.458	FALSE	531.7	4691.6	FALSE	8.9	269.7	FALSE	60
07/21/2017 17	137	146	2610.4	FALSE	0.465	FALSE	529.7	4694.9	FALSE	8.8	267.8	FALSE	60
07/21/2017 18	137	146	2615.8	FALSE	0.467	FALSE	528.2	4691.5	FALSE	8.8	268.4	FALSE	60
07/21/2017 19	138	146	2627.8	FALSE	0.47	FALSE	525.6	4689.7	FALSE	8.8	269.6	FALSE	60
07/21/2017 20	138	147	2626	FALSE	0.472	FALSE	527.3	4701.6	FALSE	8.8	269.4	FALSE	60
07/21/2017 21	138	146	2626.9	FALSE	0.467	FALSE	527.4	4704.2	FALSE	8.8	269.5	FALSE	60
07/21/2017 22	112	115	2108.8	FALSE	0.453	FALSE	493.6	3747.3	FALSE	8.3	216.4	FALSE	60
07/21/2017 23	96	99	1875.1	FALSE	0.413	FALSE	486.5	3324	FALSE	8.2	192.4	FALSE	60
07/22/2017 00	96	97	1894.8	FALSE	0.41	FALSE	489.3	3337.6	FALSE	8.3	194.4	FALSE	60
07/22/2017 01	98	95	1878.8	FALSE	0.421	FALSE	486.5	3330.7	FALSE	8.2	192.8	FALSE	60
07/22/2017 02	98	96	1892.7	FALSE	0.426	FALSE	484.1	3338.8	FALSE	8.2	194.2	FALSE	60
07/22/2017 03	99	98	1898.2	FALSE	0.447	FALSE	476.9	3339.4	FALSE	8.1	194.8	FALSE	60
07/22/2017 04	100	98	1909.9	FALSE	0.454	FALSE	472.5	3329	FALSE	8.1	196	FALSE	60

07/22/2017 05	100	98	1889.4	FALSE	0.453	FALSE	469.4	3312.6	FALSE	8	193.9	FALSE	60
07/22/2017 06	99	98	1893.4	FALSE	0.447	FALSE	473.9	3310	FALSE	8.1	194.3	FALSE	60
07/22/2017 07	98	98	1881.5	FALSE	0.444	FALSE	474.9	3296.1	FALSE	8.1	193	FALSE	60
07/22/2017 08	99	98	1874.5	FALSE	0.441	FALSE	476.9	3297.6	FALSE	8.1	192.3	FALSE	60
07/22/2017 09	110	106	2036.3	FALSE	0.435	FALSE	492.6	3611.1	FALSE	8.3	208.9	FALSE	60
07/22/2017 10	119	120	2256.7	FALSE	0.468	FALSE	502.8	3988.6	FALSE	8.5	231.5	FALSE	60
07/22/2017 11	136	143	2587.6	FALSE	0.481	FALSE	516.9	4593.7	FALSE	8.7	265.5	FALSE	60
07/22/2017 12	136	145	2592.8	FALSE	0.473	FALSE	522.8	4602.5	FALSE	8.8	266	FALSE	60
07/22/2017 13	135	145	2594.5	FALSE	0.459	FALSE	529	4607.9	FALSE	8.9	266.2	FALSE	60
07/22/2017 14	135	145	2587.3	FALSE	0.451	FALSE	531.9	4620.3	FALSE	8.9	265.5	FALSE	60
07/22/2017 15	136	145	2586.9	FALSE	0.447	FALSE	531.9	4619.5	FALSE	8.9	265.4	FALSE	60
07/22/2017 16	136	145	2595.5	FALSE	0.447	FALSE	530.3	4620.9	FALSE	8.9	266.3	FALSE	60
07/22/2017 17	137	145	2629.7	FALSE	0.452	FALSE	528.9	4669.5	FALSE	8.9	269.8	FALSE	60
07/22/2017 18	138	146	2614.7	FALSE	0.462	FALSE	528.5	4692.1	FALSE	8.8	268.3	FALSE	60
07/22/2017 19	138	146	2639.9	FALSE	0.451	FALSE	536.6	4755.8	FALSE	8.9	270.9	FALSE	60
07/22/2017 20	139	146	2640.4	FALSE	0.453	FALSE	540.7	4793.2	FALSE	8.9	270.9	FALSE	60
07/22/2017 21	104	114	2024.5	FALSE	0.43	FALSE	503.6	3670.4	FALSE	8.3	207.7	FALSE	60
07/22/2017 22	99	98	1896.5	FALSE	0.392	FALSE	505.7	3452.5	FALSE	8.3	194.6	FALSE	60
07/22/2017 23	99	97	1900	FALSE	0.405	FALSE	508.2	3476	FALSE	8.3	194.9	FALSE	60
07/23/2017 00	99	97	1883.4	FALSE	0.423	FALSE	507	3479.4	FALSE	8.2	193.2	FALSE	60
07/23/2017 01	98	97	1888.6	FALSE	0.428	FALSE	506.4	3484.9	FALSE	8.2	193.8	FALSE	60
07/23/2017 02	97	98	1861.5	FALSE	0.437	FALSE	509	3495.3	FALSE	8.1	191	FALSE	60
07/23/2017 03	96	98	1856.4	FALSE	0.441	FALSE	515.3	3528.8	FALSE	8.1	190.5	FALSE	60
07/23/2017 04	97	98	1860.5	FALSE	0.443	FALSE	520.5	3572.3	FALSE	8.1	190.9	FALSE	60
07/23/2017 05	98	98	1865.7	FALSE	0.439	FALSE	529.4	3643.4	FALSE	8.1	191.4	FALSE	60
07/23/2017 06	98	98	1872	FALSE	0.44	FALSE	530.2	3661.3	FALSE	8.1	192.1	FALSE	60
07/23/2017 07	98	98	1885.3	FALSE	0.434	FALSE	534.4	3671.3	FALSE	8.2	193.4	FALSE	60
07/23/2017 08	98	98	1885.3	FALSE	0.434	FALSE	540.7	3714.5	FALSE	8.2	193.4	FALSE	60
07/23/2017 09	99	98	1886.3	FALSE	0.43	FALSE	543.6	3736.5	FALSE	8.2	193.5	FALSE	60
07/23/2017 10	113	114	2128.8	FALSE	0.44	FALSE	566.4	4289	FALSE	8.4	218.4	FALSE	60
07/23/2017 11	133	140	2521.7	FALSE	0.491	FALSE	575.7	5043.9	FALSE	8.6	258.7	FALSE	60
07/23/2017 12	135	147	2583.9	FALSE	0.489	FALSE	581.9	5163.9	FALSE	8.7	265.1	FALSE	60
07/23/2017 13	135	144	2549.9	FALSE	0.481	FALSE	586	5132	FALSE	8.7	261.6	FALSE	60
07/23/2017 14	135	144	2533.6	FALSE	0.479	FALSE	588.7	5122.7	FALSE	8.7	260	FALSE	60
07/23/2017 15	135	144	2558.6	FALSE	0.471	FALSE	592	5143.2	FALSE	8.8	262.5	FALSE	60
07/23/2017 16	128	128	2356.8	FALSE	0.454	FALSE	584	4727.1	FALSE	8.7	241.8	FALSE	60
07/23/2017 17	125	119	2260.4	FALSE	0.452	FALSE	581.9	4570	FALSE	8.6	231.9	FALSE	60
07/23/2017 18	125	118	2260.7	FALSE	0.451	FALSE	580.5	4569.5	FALSE	8.6	231.9	FALSE	60
07/23/2017 19	107	102	1955.3	FALSE	0.454	FALSE	555.5	3957.9	FALSE	8.2	200.6	FALSE	60
07/23/2017 20	98	98	1873.5	FALSE	0.424	FALSE	552.8	3773.8	FALSE	8.2	192.2	FALSE	60
07/23/2017 21	99	98	1878.2	FALSE	0.426	FALSE	552.6	3782	FALSE	8.2	192.7	FALSE	60
07/23/2017 22	99	98	1883.1	FALSE	0.427	FALSE	552.9	3793.9	FALSE	8.2	193.2	FALSE	60
07/23/2017 23	97	98	1890.4	FALSE	0.429	FALSE	551.7	3800.4	FALSE	8.2	194	FALSE	60
07/24/2017 00	98	98	1888.8	FALSE	0.43	FALSE	552.5	3802.7	FALSE	8.2	193.8	FALSE	60
07/24/2017 01	100	96	1884.4	FALSE	0.426	FALSE	554.6	3808.1	FALSE	8.2	193.3	FALSE	60
07/24/2017 02	100	96	1890.5	FALSE	0.424	FALSE	556.3	3832.2	FALSE	8.2	194	FALSE	60
07/24/2017 03	100	98	1898.3	FALSE	0.432	FALSE	553.5	3828.7	FALSE	8.2	194.8	FALSE	60
07/24/2017 04	101	98	1902.1	FALSE	0.435	FALSE	552.5	3829.4	FALSE	8.2	195.2	FALSE	60
07/24/2017 05	101	98	1877.4	FALSE	0.442	FALSE	548	3795.1	FALSE	8.1	192.6	FALSE	60
07/24/2017 06	101	99	1878	FALSE	0.438	FALSE	548.8	3801.9	FALSE	8.1	192.7	FALSE	60
07/24/2017 07	101	99	1898.8	FALSE	0.433	FALSE	552.4	3822.1	FALSE	8.2	194.8	FALSE	60
07/24/2017 08	101	99	1897.8	FALSE	0.431	FALSE	548.6	3793.9	FALSE	8.2	194.7	FALSE	60
07/24/2017 09	100	98	1895.6	FALSE	0.433	FALSE	544.7	3762.4	FALSE	8.2	194.5	FALSE	60
07/24/2017 10	99	98	1897.4	FALSE	0.436	FALSE	542.6	3751.5	FALSE	8.2	194.7	FALSE	60
07/24/2017 11	100	102	1926.3	FALSE	0.439	FALSE	541.4	3800.3	FALSE	8.2	197.6	FALSE	60
07/24/2017 12	110	127	2214.9	FALSE	0.494	FALSE	545.1	4294.7	FALSE	8.4	227.2	FALSE	60
07/24/2017 13	127	119	2278.8	FALSE	0.47	FALSE	552.9	4429	FALSE	8.5	233.8	FALSE	60
07/24/2017 14	132	110	2232.9	FALSE	0.486	FALSE	539	4332.8	FALSE	8.3	229.1	FALSE	60
07/24/2017 15	134	136	2465.3	FALSE	0.484	FALSE	558.5	4783.8	FALSE	8.6	252.9	FALSE	60

07/25/2017 01	111	130	2175.1	YES	0.394	YES	1.732	YES	8.2	223.2	YES	60	86.66	0.0168	0.03640	3.31	0.007192562	0.047809	103.99	13.00	43.33
07/25/2017 02	87	129	1958.6	YES	0.378	YES	1.721	YES	7.9	201.0	YES	60	78.03	0.0168	0.03277	3.31	0.006476645	0.047809	93.64	11.70	39.02
07/25/2017 03	84	122	1865.2	YES	0.339	YES	1.705	YES	7.9	191.4	YES	60	74.31	0.0168	0.03121	3.31	0.006167793	0.047809	89.17	11.15	37.16
07/25/2017 04	85	110	1778.1	YES	0.292	YES	1.699	YES	7.8	182.4	YES	60	70.84	0.0168	0.02975	3.31	0.005879773	0.047809	85.01	10.63	35.42
07/25/2017 05	86	112	1787.9	YES	0.316	YES	1.682	YES	7.7	183.4	YES	60	71.23	0.0168	0.02992	3.31	0.005912179	0.047809	85.48	10.68	35.62
07/25/2017 06	81	94	1623.3	YES	0.281	YES	1.610	YES	7.7	166.5	YES	60	64.67	0.0168	0.02716	3.31	0.005367894	0.047809	77.61	9.70	32.34
07/25/2017 07	70	56	1283.6	YES	0.25	YES	1.524	YES	6.5	131.7	YES	60	51.14	0.0168	0.02148	3.31	0.004244574	0.047809	61.37	7.67	25.57
07/25/2017 08	47	31	859.4	YES	0.3	YES	1.300	YES	5	88.2	YES	60	34.24	0.0168	0.01438	3.31	0.002841841	0.047809	41.09	5.14	17.12
07/25/2017 09	41	34	844.4	YES	0.294	YES	1.348	YES	4.9	86.6	YES	60	33.64	0.0168	0.01413	3.31	0.002792239	0.047809	40.37	5.05	16.82
07/25/2017 10	48	44	993.3	YES	0.251	YES	1.390	YES	5.8	101.9	YES	60	39.57	0.0168	0.01662	3.31	0.003284618	0.047809	47.49	5.94	19.79
07/25/2017 11	49	44	1013.9	YES	0.244	YES	1.396	YES	5.9	104.0	YES	60	40.39	0.0168	0.01697	3.31	0.003352737	0.047809	48.47	6.06	20.20
07/25/2017 12	50	16	724	YES	0.198	YES	1.347	YES	4.3	74.3	YES	60	28.84	0.0168	0.01211	3.31	0.002394104	0.047809	34.61	4.33	14.42
07/25/2017 13	49	0	502.4	YES	0.129	YES	1.343	YES	3	51.5	YES	60	20.02	0.0168	0.00841	3.31	0.001661323	0.047809	24.02	3.00	10.01
07/25/2017 14	5	0	480.5	YES	0.127	YES	1.282	YES	2.5	6.6	YES	8	19.14	0.0168	0.00804	3.31	0.001588904	0.047809	22.97	2.87	9.57
07/25/2017 15	0	0	0	YES	0	YES	0	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/25/2017 16	0	0	0	YES	0	YES	0	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/25/2017 17	0	0	0	YES	0	YES	0	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/25/2017 18	0	0	0	YES	0	YES	0	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/25/2017 19	0	0	0	YES	0	YES	0	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/25/2017 20	0	0	0	YES	0	YES	0	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/25/2017 21	0	0	0	YES	0	YES	0	YES	0.2	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/25/2017 22	0	0	0	YES	0	YES	0	YES	0.1	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/25/2017 23	0	0	0	YES	0	YES	0	YES	0.1	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/26/2017 00	0	0	0	YES	0	YES	0	YES	0.1	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/26/2017 01	0	0	0	YES	0	YES	0	YES	0.1	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/26/2017 02	0	0	0	YES	0	YES	0	YES	0.1	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/26/2017 03	0	0	0	YES	0	YES	0	YES	0.1	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/26/2017 04	0	0	0	YES	0	YES	0	YES	1.4	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/26/2017 05	0	0	0	YES	0	YES	0	YES	2.7	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/26/2017 06	0	0	0	YES	0	YES	0	YES	0.1	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/26/2017 07	0	0	0	YES	0	YES	0	YES	0.1	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/26/2017 08	0	0	0	YES	0	YES	0	YES	0.1	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/26/2017 09	0	0	0	YES	0	YES	0	YES	0.1	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/26/2017 10	0	0	0	YES	0	YES	0	YES	0.1	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/26/2017 11	0	0	0	YES	0	YES	0	YES	0.1	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/26/2017 12	0	0	0	YES	0	YES	0	YES	0.1	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/26/2017 13	0	0	0	YES	0	YES	0	YES	0.1	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/26/2017 14	0	0	0	YES	0	YES	0	YES	0.1	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/26/2017 15	0	0	0	YES	0	YES	0	YES	0.1	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/26/2017 16	0	0	0	YES	0	YES	0	YES	0.1	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/26/2017 17	0	0	0	YES	0	YES	0	YES	0.1	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/26/2017 18	0	0	0	YES	0	YES	0	YES	0.1	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/26/2017 19	0	0	0	YES	0	YES	0	YES	0.1	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/26/2017 20	0	0	0	YES	0	YES	0	YES	0.1	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/26/2017 21	0	0	0	YES	0	YES	0	YES	0.1	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/26/2017 22	0	0	0	YES	0	YES	0	YES	0.1	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
07/26/2017 23	0	0	0	YES	0	YES	0	YES	0.1	0.0	YES	0	0.00	0.0168	0	0	0	0	0.00	0.00	0.00
MAX			2761.4		0.528		2.027			283.3			110.0	0.0168	0.0462	3.3068	0.0091	0.0478	132.0191	16.5024	55.0080
AVERAGE			1816.1										68.06								

16 hrs min, 8 hours max

ATTACHMENT 3

Copy of YT12 Intake

Circulating Water

Usage

July 2017REV1 Report

Yorktown Power Station July 2017 Circulating Water Usage for DOE Emergency Run per PJM dispatch

<i>Unit</i>	<i>On-Line</i>	<i>Off-Line</i>	<i>Days On-Line</i>	<i>Start-up Notification</i>	<i>Turbine Metal Temp < 300 deg</i>	<i>Total Cooling Water Days</i>	<i>Total Water Amount (Mgal)</i>
1	7/13/17 16:52	7/14/17 23:03	1.26	7/12/17 14:47	7/16/17 21:11	4.27	528
1	7/19/17 6:24	7/25/17 15:08	6.36	7/18/17 8:06	7/27/17 13:23	9.22	1,211
Million gallons of Intake Circulating Water through Unit 1							1,739

<i>Unit</i>	<i>On-Line</i>	<i>Off-Line</i>	<i>Days On-Line</i>	<i>Start-up Notification*</i>	<i>Turbine Metal Temp < 300 deg*</i>	<i>Total Cooling Water Days</i>	<i>Total Water Amount (Mgal)</i>
2	7/11/17 5:10	7/15/17 1:15	3.84	7/10/17 8:40	7/18/17 17:20	8.36	974
2	7/18/17 23:40	7/25/17 13:24	6.57	7/18/17 8:07	7/28/17 15:33	10.31	1,297
Million gallons of Intake Circulating Water through Unit 2							2,271
Total million gallons through Unit 1 & 2							4,010

* Within this timeframe, there were a different number of pumps in service for Unit 2, and this variation was accounted for in the total water amount calculation. During the cool down only one pump is necessary but as the start-up proceeds, the second pump must be energized. This transition from one pump to two pumps is demonstrated by the time overlap and was accommodated in the total water amount calculation.