

## Calculating 2017 NO<sub>x</sub> Emissions

March 25, 2015

To calculate the 2017 Base Case emissions and produce a flat file for air quality modeling, EPA started with the 2018 Base Case results and made modifications to emissions of units in three categories.

- 1) **SCR Operation/Installation:** For units that had an SCR in 2018 but were assumed to not operate (or be installed) in 2017, EPA recalculated the NO<sub>x</sub> emissions for the unit with the 2018 heat input and the 2016 emissions rate.
- 2) **Retirements:** For units projected to retire in 2018, emissions from the 2016 run year were included in the 2017 emissions.
- 3) **Coal-To-Gas:** For units that had implemented coal-to-gas retrofit options in 2018 and had not dispatched, emissions from the 2016 run year were incorporated. However, if the coal-to-gas retrofit options had dispatched in 2018, then the NO<sub>x</sub> emissions were calculated based on the 2018 fuel use and 2016 NO<sub>x</sub> rate.

The table below lists the units that were affected by these changes and the number of tons added to the 2018 Base Case results to calculate the 2017 Base Case NO<sub>x</sub> emissions.

NEEDS UNIQUE ID	Reason For Emissions Change	2018 Ozone Season NO <sub>x</sub> (tons)	2018 Annual NO <sub>x</sub> (tons)	Incremental Ozone Season NO <sub>x</sub> (tons)	Incremental Annual NO <sub>x</sub> (tons)	2017 Ozone Season NO <sub>x</sub> (tons)	2017 Annual NO <sub>x</sub> (tons)
667_B_1	Coal-To-Gas	0.26	0.26	165.70	378.02	165.96	378.28
667_B_2	Coal-To-Gas	0.30	0.30	194.93	444.71	195.23	445.01
469_B_4	Coal-To-Gas	0.00	0.00	1,665.81	4,132.61	1,665.81	4,132.61
10676_B_5	Retirement	56.67	131.53	185.27	430.00	241.95	561.53
1077_G_3	Retirement	0.00	0.00	24.29	30.71	24.29	30.71
1378_B_1	Retirement	0.00	0.00	1,256.61	2,857.72	1,256.61	2,857.72
1378_B_2	Retirement	0.00	0.00	1,163.07	2,644.98	1,163.07	2,644.98
1378_B_3	Retirement	0.00	0.00	5,389.64	8,864.66	5,389.64	8,864.66
1394_B_1	Retirement	0.00	0.00	2.84	21.88	2.84	21.88
1394_B_2	Retirement	0.00	0.00	3.90	29.99	3.90	29.99
1394_B_5	Retirement	0.00	0.00	10.33	79.54	10.33	79.54

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1507_B_1	Retirement	0.00	0.00	4.21	12.69	4.21	12.69
1507_B_2	Retirement	0.00	0.00	3.42	11.59	3.42	11.59
1507_B_3	Retirement	0.00	0.00	2.52	10.69	2.52	10.69
1507_B_4	Retirement	0.00	0.00	22.43	51.25	22.43	51.25
1571_B_1	Retirement	0.00	0.00	709.98	1,628.36	709.98	1,628.36
1619_B_3	Retirement	0.00	0.00	0.07	0.15	0.07	0.15
1619_B_4	Retirement	0.00	0.00	8.33	8.33	8.33	8.33
170_B_4	Retirement	0.00	0.00	50.56	50.56	50.56	50.56
1769_B_7	Retirement	0.00	0.00	618.14	1,434.63	618.14	1,434.63
1769_B_8	Retirement	0.00	0.00	604.21	1,402.30	604.21	1,402.30
1769_B_9	Retirement	0.00	0.00	613.45	1,423.73	613.45	1,423.73
2324_B_4	Retirement	0.00	0.00	974.51	2,223.23	974.51	2,223.23
271_B_5	Retirement	0.00	0.00	0.54	0.54	0.54	0.54
271_B_6	Retirement	0.00	0.00	0.67	0.67	0.67	0.67
477_B_5	Retirement	0.00	0.00	1,020.45	2,345.48	1,020.45	2,345.48
6181_B_1	Retirement	0.00	0.00	543.96	1,238.72	543.96	1,238.72
6181_B_2	Retirement	0.00	0.00	251.57	361.87	251.57	361.87
6183_B_SM-1	Retirement	0.00	0.00	331.86	331.86	331.86	331.86
160_B_3	SCR Retrofit	152.18	349.36	1,204.67	2,765.52	1,356.85	3,114.88
113_B_3	SCR Retrofit	223.79	510.54	918.09	2,094.52	1,141.88	2,605.06
160_B_2	SCR Retrofit	288.81	663.53	828.93	1,904.11	1,117.75	2,567.63
113_B_4	SCR Retrofit	316.87	726.74	1,344.23	3,083.01	1,661.09	3,809.75
113_B_2	SCR Retrofit	321.92	734.41	922.27	2,104.03	1,244.18	2,838.45
6101_B_BW91	SCR Retrofit	441.12	1,011.73	905.39	2,076.53	1,346.52	3,088.26
1893_B_4	SCR Retrofit	454.61	1,065.46	508.65	1,158.31	963.26	2,223.77

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6204_B_3	SCR Retrofit	639.85	1,457.06	1,389.82	3,164.91	2,029.66	4,621.97
6204_B_2	SCR Retrofit	643.74	1,465.94	1,061.66	2,417.61	1,705.40	3,883.55
6204_B_1	SCR Retrofit	645.69	1,470.38	1,084.65	2,469.97	1,730.34	3,940.35
2817_B_1	SCR Retrofit	759.49	1,732.68	240.04	547.62	999.53	2,280.30
6076_B_2	SCR Retrofit	796.92	1,827.76	935.01	2,144.47	1,731.94	3,972.23
6076_B_1	SCR Retrofit	806.57	1,849.89	960.67	2,203.32	1,767.25	4,053.21
6030_B_2	SCR Retrofit	899.48	2,300.39	461.47	685.55	1,360.95	2,985.94
2442_B_5	SCR Retrofit	1,201.55	2,732.50	4,849.76	11,029.08	6,051.32	13,761.58
2442_B_4	SCR Retrofit	1,207.72	2,746.53	4,734.40	10,766.73	5,942.12	13,513.26
6030_B_1	SCR Retrofit	1,109.01	2,857.26	592.74	863.94	1,701.75	3,721.20
2963_B_3313	SCR Retrofit	1,717.27	3,910.59	1,175.57	2,677.03	2,892.84	6,587.62