Appendix D1 - NOx/VOC Offsets in the Dayton Area Using Wright-Patterson Air Force Base NOx Reductions
Actual and Projected Emissions

Unit	B606	B607	B608	B609	Combined B606, B607, B608 and B609	Combined B607, B608 and B609	
Status	Permanently shutdown 6/7/16	Nat gas conversion by 1/31/17	Nat gas conversion by 1/31/17	No changes	Before shutdown/conversions	Projected after shutdown/conversions	Notes
Coal Emissions factor (lb/mmBTU)	0.45	0.53	0.36				(provided as part of required annual emissions reporting)
Natural gas emission rate (lbs/mmBTU)						0.10	(from new PTI P0119472)
2011-2014 Natural gas heat value (BTU/cu ft)				1,031			(provided as part of required annual emissions reporting)
2015 Natural gas heat value (BTU/cu ft)				1,060			(provided as part of required annual emissions reporting)
2011							
NOx Emissions (TPY)	26.76	46.12	22.67	0.41	95.96	21.78	
mmBTU	118,933.33	174,037.74	125,944.44	16,702.20	435,617.71	435,617.71	
Q Nat. Gas (MMFt^3/Yr)				16.20			
2012							
NOx Emissions (TPY)	2.63	41.17	25.09	0.88	69.77	18.74	
mmBTU	11,688.89	155,358.49	139,388.89	68,448.09	374,884.36	374,884.36	
Q Nat. Gas (MMFt^3/Yr)				66.39			
2013							
NOx Emissions (TPY)	None reported	64.51	20.61	1.66	86.78	21.32	
mmBTU	0.00	243,433.96	114,500.00	68,448.09	426,382.05	426,382.05	
Q Nat. Gas (MMFt^3/Yr)				66.39			
2014							
NOx Emissions (TPY)	None reported	45.93	36.14	1.59	83.66	21.99	
mmBTU	0.00	173,320.75	200,777.78	65,602.53	439,701.06	439,701.06	
Q Nat. Gas (MMFt^3/Yr)				63.63			
2015							
NOx Emissions (TPY)	9.98	28.71	24.83	2.42	65.94	19.67	
mmBTU	44,355.56	108,339.62	137,944.44	102,798.80	393,438.42	393,438.42	
Q Nat. Gas (MMFt^3/Yr)				96.98			
2011-2015							
2011-2015 avg Emissions (TPY)	13.12	45.29	25.87	1.39	85.67	20.70	
2011-2015 avg mmBTU	34,995.56	170,898.11	143,711.11	64,399.94	414,004.72	414,004.72	
Emissions reductions due to shutdown/conversion - using 5 year average (TPY)						64.97	
Emissions reductions due to shutdown/conversion - using 2015 (TPY)						46.27	
Remaining offset needs for Dayton area (TPY)							
NOx						13.93	
VOC						7.64	
VOC converted to NOx (at 1.021:1 ratio)						7.79	
Total NOx emissions to be replaced						21.72	