

Table B-1: Facility Wide Emissions
Wolf 1 CHP Data Center
Newark, Delaware

Facility Yearly Estimated Actual Emissions

Emitting Units	LM2500 DLE CT	18V50SG RGE	Cooling Towers	Facility Total	
Number of Units	6	3	2		
Pollutant	(tons/year)	(tons/year)	(tons/year)	(tons/year)	
NO _x	42.2	31.87	-	74.04	
CO	9.6	69.05	-	78.68	
VOC	12.2	69.05	-	81.21	
SO ₂	8.2	1.05	-	9.21	
PM ₁₀	38.2	17.78	3.46	59.45	
PM _{2.5}	38.2	17.78	3.46	59.45	
PM _{Total}	38.2	17.78	3.46	59.45	
H ₂ SO ₄	6.1	1.89	-	8.02	
Ammonia	55.5	17.07	-	72.58	
HAPs	0.6	12.85	-	13.44	
Greenhouse Gas Emissions (CO _{2e})				GWP factor	CO _{2e} (tons)
CO ₂	636,843	257,604	-	1	894,447
CH ₄	49.8	3.92	-	21	1,128
N ₂ O	17.4	0.39	-	310	5,506
SF6*	0.00225			23,900	54
Total Greenhouse Gas Emissions (CO _{2e})				-	901,134

Notes:

1. Annual potential emissions for reciprocating gas engines are based on operations at rated capacity for 8,580 hours per year, which accounts for manufacturer's recommended annual maintenance schedule for the engines.
2. Annual potential emissions for gas combustion turbines are based on operations at rated capacity for 8,760 hours per year, which does not take into account downtime for maintenance. Annual downtime for turbine maintenance is anticipated to be minimal.
3. One turbine always is held in reserve to be activated only when another turbine is not operating due to maintenance or failure.

*SF6 Emissions		
Insulated Circuit Breaker SF6 capacity	75	lbs
Estimated Number of Breakers at the Facility (CHP)	12	
Estimated Annual Loss Rate	0.5	% by weight
Estimated Annual SF6 mass emission rate	0.00225	tons / year

Facility Hourly Estimated Actual Emissions

Emitting Units	LM2500 DLE CT	18V50SG RGE	Cooling Towers	Facility Total	
Number of Units	6	3	2		
Pollutant	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	
NO _x	9.63	7.43	-	17.06	
CO	2.20	16.10	-	18.29	
VOC	2.78	16.10	-	18.87	
SO ₂	1.86	0.24	-	2.11	
PM ₁₀	8.72	4.14	0.79	13.66	
PM _{2.5}	8.72	4.14	0.79	13.66	
PM _{Total}	8.72	4.14	0.79	13.66	
H ₂ SO ₄	1.40	0.44	-	1.84	
Ammonia	12.67	3.98	-	16.65	
HAPs	0.023	0.998	-	1.02	
Greenhouse Gases (CO _{2e})					
CO ₂	145,398	60,048	-	205,446	
CH ₄	11.37	0.91	-	12.28	
N ₂ O	3.97	0.09	-	4.06	

Q/D calculation for Class I areas			
Total NO _x	74.04	tpy	
SO ₂	9.21	tpy	
H ₂ SO ₄	8.02	tpy	
PM _{total}	59.45	tpy	
Q totals	150.72	tpy	Q/D
Distance to Brigantine (D)	97	km	1.554
Distance to Shenandoah (D)	212	km	0.711