

University of North Carolina at Chapel Hill

Chapel Hill, North Carolina

Orange County

Facility ID # 6800043

Permit # 03069T35

2020 Annual Emissions Inventory Facility Summary

Pollutant	Units	Boiler #6					Boiler #7					Boiler #8					Boiler #9					Boiler #10					Railcar Dump Pits	Coal Storage Silos	Coal Silo Conveyors	Sorbent Railcar Dump Pit	Ash Silo w/ Loadout	Coal Conveyor & Crusher Building	Non-Emergency Generators G1 & G2	Sterilizers located at Dental School	Grouped Small Emergency Generators (No. 2 Fuel Oil)	EPA Building Emergency Generator	Bondurant Emergency Generator	New East Emergency Generator
		Natural Gas	Fuel Oil	Wood	Coal	Total	Natural Gas	Fuel Oil	Wood	Coal	Total	Natural Gas	Fuel Oil	Wood	Coal	Total	Natural Gas	Fuel Oil	Wood	Coal	Total	Natural Gas	Fuel Oil	Wood	Coal	Total												
Criteria Pollutants																																						
PM	tpy	2.49	0	0	0.73	3.22	1.77	0	0	0.46	2.23	0.18	0	0.18	0.28	0	0.28	0.16	0	0.16	3.19E-03	2.21E-03	2.21E-03	8.00E-03	0.80	0.34	0.03		0.18	1.27E-03	3.08E-03							
PM-10	tpy	2.49	0	0	0.73	3.22	1.77	0	0	0.46	2.23	0.18	0	0.18	0.28	0	0.28	0.16	0	0.16	1.51E-03	2.21E-03	2.21E-03	3.78E-03	0.80	0.34	0.03		0.18	1.27E-03	3.08E-03							
PM-2.5	tpy	2.49	0	0	0.73	3.22	1.77	0	0	0.46	2.23	0.18	0	0.18	0.28	0	0.28	0.16	0	0.16	4.75E-04	2.09E-03	2.09E-03	1.19E-03	0.76	0.33	0.03		0.18	1.27E-03	3.08E-03							
NOx	tpy	55.41	0	0	59.12	114.53	39.91	0	0	41.22	81.13	1.32	0	1.32	1.69	0	1.69	1.08	0	1.08							0.53	2.61	0.02		0.06							
VOC	tpy	1.80	0	0	0.17	1.96	1.28	0	0	0.11	1.40	0.13	0	0.13	0.20	0	0.20	0.12	0	0.12							0.02	2.11E-03	0.21	1.04E-03	2.52E-03							
CO	tpy	27.47	0	0	12.28	39.75	19.59	0	0	8.48	28.07	2.04	0	2.04	3.06	0	3.06	1.76	0	1.76							0.07	0.56	0.01		0.03							
SO2	tpy	0*	0	0*	127.86	127.86	0*	0	0*	63.47	63.47	0.01	0	0.01	0.02	0	0.02	0.01	0	0.01							0.01	0.03	1.93E-05	4.67E-05								
Greenhouse Gases																																						
CO2	tpy	41,815.12	0.00E+00	0.00E+00	78,443.06	120,258.17	30,456.82	0.00E+00	0.00E+00	55,299.14	85,755.96	703.60	0.00E+00	703.60	5,741.22	0.00E+00	5,741.22	3,275.37	0.00E+00	3,275.37																		
Methane	tpy	0.74	0.00E+00	0.00E+00	8.73	9.48	0.53	0.00E+00	0.00E+00	6.03	6.56	0.06	0.00E+00	0.06	0.08	0.00E+00	0.08	0.05	0.00E+00	0.05							1.86E-03	3.92E-03	8.41E-05	2.04E-04								
Nitrous Oxide	tpy	0.07	0.00E+00	0.00E+00	1.27	1.34	0.05	0.00E+00	0.00E+00	0.88	0.93	5.53E-03	0.00E+00	5.53E-03	8.30E-03	0.00E+00	8.30E-03	4.77E-03	0.00E+00	4.77E-03							3.72E-04	7.84E-04	1.68E-05	4.08E-05								
HAPs/TAPs																																						
1,3 Butadiene	lb/yr				0.00E+00	0.00E+00				0.00E+00	0.00E+00			0.00E+00			0.00E+00			0.00E+00												0.05						
2,3,7,8-TCDD	lb/yr			0.00E+00	4.08E-07	4.08E-07			0.00E+00	2.84E-07	2.84E-07			0.00E+00			0.00E+00			0.00E+00																		
2,4-Dinitrotoluene	lb/yr				7.98E-03	7.98E-03				5.56E-03	5.56E-03			0.00E+00			0.00E+00			0.00E+00																		
2-Chloroacetonitrile	lb/yr				0.20	0.20				0.14	0.14			0.00E+00			0.00E+00			0.00E+00																		
Acetaldehyde	lb/yr			0.00E+00	16.25	16.25			0.00E+00	11.32	11.32			0.00E+00			0.00E+00			0.00E+00													0.01	6.41E-04	1.55E-03			
Acetic Acid	lb/yr			0.00E+00	0.00E+00	0.00E+00			0.00E+00	0.00E+00	0.00E+00			0.00E+00			0.00E+00			0.00E+00																		
Acetophenone	lb/yr			0.00E+00	0.43	0.43			0.00E+00	0.30	0.30			0.00E+00			0.00E+00			0.00E+00																		
Acrolein	lb/yr			0.00E+00	8.27	8.27			0.00E+00	5.76	5.76			0.00E+00			0.00E+00			0.00E+00													4.43E-03	0.11	2.00E-04	4.86E-04		
Ammonia	lb/yr	2,093.02			2,093.02	1,492.57			1,492.57	155.60	155.60			233.23			233.23	134.15		134.15																		
Antimony	lb/yr		0.00E+00	0.00E+00	0.23	0.23			0.00E+00	0.16	0.16			0.00E+00			0.00E+00			0.00E+00																		
Arsenic	lb/yr	0.13	0.00E+00	0.00E+00	0.22	0.35			0.09	0.00E+00	0.15	0.24		9.72E-03			9.72E-03	0.01		8.38E-03								2.25E-03	4.74E-03	1.02E-04	2.47E-04							
Benzene	lb/yr	1.37	0.00E+00	0.00E+00	37.06	38.44			0.98	0.00E+00	25.81	26.79		0.10			0.10	0.15		0.09								0.44	1.11	0.02	0.05							
Benzo(a)pyrene	lb/yr			0.00E+00	1.08E-03	1.08E-03				7.54E-04	7.54E-04			0.00E+00			0.00E+00			0.00E+00								1.45E-04	2.23E-04	6.53E-06	1.58E-05							
Benzyl Chloride	lb/yr				19.96	19.96				13.90	13.90			0.00E+00			0.00E+00			0.00E+00																		
Beryllium	lb/yr	7.85E-03	0.00E+00	0.00E+00	0.04	0.05			5.60E-03	0.00E+00	0.00E+00			0.03			5.83E-04		8.75E-04	0.00E+00								1.69E-03	3.56E-03	7.63E-05	1.85E-04							
Biphenyl	lb/yr				0.05	0.05				0.03	0.03			0.00E+00			0.00E+00			0.00E+00																		
Bis(2-ethylhexyl)phthalate (DEHP)	lb/yr				2.08	2.08				1.45	1.45			0.00E+00			0.00E+00			0.00E+00																		
Bromine	lb/yr				5.91	5.91				4.08	4.08			0.00E+00			0.00E+00			0.00E+00																		
Bromoform	lb/yr				1.11	1.11				0.77	0.77			0.00E+00			0.00E+00			0.00E+00																		
Cadmium	lb/yr	0.72	0.00E+00	0.00E+00	0.10	0.82			0.51	0.00E+00	0.00E+00			0.07			0.58	0.05		0.00E+00	0.05							1.69E-03	3.56E-03	7.63E-05	1.85E-04							
Carbon Disulfide	lb/yr				3.71	3.71				2.58	2.58			0.00E+00			0.00E+00			0.00E+00																		
Chlorine	lb/yr			0.00E+00	77.79	77.79				53.69	53.69			0.00E+00			0.00E+00			0.00E+00																		
Chlorobenzene	lb/yr			0.00E+00	0.63	0.63				0.44	0.44			0.00E+00			0.00E+00			0.00E+00																		
Chloroform	lb/yr			0.00E+00	1.68	1.68				1.17	1.17			0.00E+00			0.00E+00			0.00E+00																		
Chromium	lb/yr	0.92	0.00E+00	0.00E+00	3.46	4.37			0.65	0.00E+00	0.00E+00			2.39			3.04	0.07		0.00E+00	0.07							0.06	0.00E+00	0.06								
Chromic Acid VI	lb/yr	0.92	0.00E+00	0.00E+00	6.91E-03	0.92			0.65	0.00E+00	0.00E+00			4.77E-03			0.66	0.07		0.00E+00	0.10							0.06	0.00E+00	0.06								
Cobalt	lb/yr	0.05	0.00E+00	0.00E+00	0.20	0.25			0.04	0.00E+00	0.00E+00			0.14			0.18	4.08E-03		4.08E-03	6.12E-03							3.52E-03	3.52E-03									
Cumene	lb/yr				0.15	0.15				0.11	0.11			0.00E+00			0.00E+00			0.00E+00																		
Cyanide	lb/yr				71.28	71.28				49.63	49.63			0.00E+00			0.00E+00			0.00E+00																		
Dibenzofurans	lb/yr				5.73E-03	5.73E-03				3.99E-03	3.99E-03			0.00E+00			0.00E+00			0.00E+00																		
Dichlorobenzene	lb/yr	0.78			0.78	0.56			0.56	0.06	0.06			0.09			0.09	0.05		0.05																		
Dimethyl Sulfate	lb/yr				1.37	1.37				0.95	0.95																											

University of North Carolina at Chapel Hill

Chapel Hill, North Carolina

Orange County

Facility ID # 6800043

Permit # 03069T35

2020 Annual Emissions Inventory

Pollutant	Units	Burnett-Womack Building Emergency Generator	Mary Ellen Jones Building Emergency Generator	Genetic Medicine Building Emergency Generator	440 W. Franklin Emergency Generator	Rams Head Emergency Generator	ITS Emergency Generator	Brinkhous-Bullitt Emergency Generator	Venable Emergency Generator	IRB Emergency Generator	Thurston Bowles Building Emergency Generator	Genomic Science Building Emergency Generator	Dental Research Building Emergency Generator	Lineberger Emergency Generator	Taylor Hall Emergency Generator	Neuroscience Research Emergency Generator	MBRB Emergency Generator	Michael Hooker Bldg. Emergency Generator	Chapman Hall Emergency Generator	Caudill Labs Emergency Generator	Kenan Fire Pump	McCull Fire Pump	Davis Library Fire Pump	Davie Hall Emergency Generator
Criteria Pollutants																								
PM	tpy	6.74E-03	4.63E-03	7.28E-03	2.93E-03	0.01	0.01	3.60E-03	2.76E-03	7.60E-03	4.45E-03	5.56E-03	3.03E-03	2.57E-03	3.21E-03	3.70E-03	3.85E-03	4.01E-03	2.05E-03	2.57E-03	2.74E-04	3.92E-04	2.19E-04	8.03E-04
PM-10	tpy	6.74E-03	4.63E-03	7.28E-03	2.93E-03	0.01	0.01	3.60E-03	2.76E-03	7.60E-03	4.45E-03	5.56E-03	3.03E-03	2.57E-03	3.21E-03	3.70E-03	3.85E-03	4.01E-03	2.05E-03	2.57E-03	2.74E-04	3.92E-04	2.19E-04	8.03E-04
PM-2.5	tpy	6.74E-03	4.63E-03	7.28E-03	2.93E-03	0.01	0.01	3.60E-03	2.76E-03	7.60E-03	4.45E-03	5.56E-03	3.03E-03	2.57E-03	3.21E-03	3.70E-03	3.85E-03	4.01E-03	2.05E-03	2.57E-03	2.74E-04	3.92E-04	2.19E-04	8.03E-04
NOx	tpy	0.13	0.09	0.14	0.06	0.20	0.24	0.07	0.05	0.14	0.08	0.11	0.06	0.05	0.06	0.07	0.07	0.08	0.04	0.05	3.90E-03	5.57E-03	3.12E-03	0.02
VOC	tpy	5.52E-03	3.79E-03	5.96E-03	2.40E-03	8.41E-03	0.01	2.94E-03	2.26E-03	6.22E-03	3.65E-03	4.56E-03	2.48E-03	2.11E-03	2.63E-03	3.03E-03	3.15E-03	3.29E-03	1.68E-03	2.10E-03	3.19E-04	4.55E-04	2.54E-04	6.57E-04
CO	tpy	0.06	0.04	0.06	0.02	0.09	0.11	0.03	0.02	0.06	0.04	0.05	0.03	0.02	0.03	0.03	0.03	0.03	0.02	0.02	8.40E-04	1.20E-03	6.71E-04	6.82E-03
SO2	tpy	1.02E-04	7.01E-05	1.10E-04	4.44E-05	1.56E-04	1.91E-04	5.45E-05	4.18E-05	1.15E-04	6.74E-05	8.43E-05	4.60E-05	3.89E-05	4.86E-05	5.61E-05	5.84E-05	6.08E-05	3.11E-05	3.89E-05	1.34E-06	1.91E-06	1.07E-06	1.22E-05
Greenhouse Gases																								
CO2	tpy	10.99	7.55	11.86	4.77	16.75	20.59	5.86	4.50	12.39	7.26	9.07	4.95	4.19	5.23	6.03	6.28	6.54	3.35	4.19	0.14	0.21	0.12	1.31
Methane	tpy	4.46E-04	3.06E-04	4.81E-04	1.94E-04	6.79E-04	8.35E-04	2.38E-04	1.83E-04	5.02E-04	2.94E-04	3.68E-04	2.01E-04	1.70E-04	2.12E-04	2.45E-04	2.55E-04	2.65E-04	1.36E-04	1.70E-04	5.85E-06	8.36E-06	4.67E-06	5.31E-05
Nitrous Oxide	tpy	8.92E-05	6.12E-05	9.62E-05	3.87E-05	1.36E-04	1.67E-04	4.76E-05	3.65E-05	1.00E-04	5.89E-05	7.36E-05	4.01E-05	3.40E-05	4.25E-05	4.89E-05	5.10E-05	5.31E-05	2.72E-05	3.40E-05	1.17E-06	1.67E-06	9.35E-07	1.06E-05
HAPs/TAPs																								
1,3 Butadiene	lb/yr																				6.92E-05	9.88E-05	5.53E-05	
2,3,7,8-TCDD	lb/yr																							
2,4-Dinitrotoluene	lb/yr																							
2-Chloroacetophenone	lb/yr																							
Acetaldehyde	lb/yr	3.40E-03	2.33E-03	3.67E-03	1.48E-03	5.18E-03	6.36E-03	1.81E-03	1.39E-03	3.83E-03	2.24E-03	2.80E-03	1.53E-03	1.30E-03	1.62E-03	1.86E-03	1.94E-03	2.02E-03	1.04E-03	1.29E-03	1.36E-03	1.94E-03	1.08E-03	4.04E-04
Acetic Acid	lb/yr																							
Acetophenone	lb/yr																							
Acrolein	lb/yr	1.06E-03	7.29E-04	1.15E-03	4.61E-04	1.62E-03	1.99E-03	5.67E-04	4.35E-04	1.20E-03	7.02E-04	8.77E-04	4.78E-04	4.05E-04	5.06E-04	5.83E-04	6.07E-04	6.32E-04	3.24E-04	4.05E-04	1.64E-04	2.34E-04	1.31E-04	1.26E-04
Ammonia	lb/yr																							
Antimony	lb/yr																							
Arsenic	lb/yr	5.39E-04	3.70E-04	5.82E-04	2.34E-04	8.22E-04	1.01E-03	2.88E-04	2.21E-04	6.08E-04	3.56E-04	4.45E-04	2.43E-04	2.06E-04	2.57E-04	2.96E-04	3.08E-04	3.21E-04	1.64E-04	2.05E-04	7.08E-06	1.01E-05	5.65E-06	6.42E-05
Benzene	lb/yr	0.10	0.07	0.11	0.05	0.16	0.20	0.06	0.04	0.12	0.07	0.09	0.05	0.04	0.05	0.06	0.06	0.06	0.03	0.04	1.65E-03	2.36E-03	1.32E-03	0.01
Benzo(a)pyrene	lb/yr	3.46E-05	2.38E-05	3.74E-05	1.50E-05	5.28E-05	6.49E-05	1.85E-05	1.42E-05	3.90E-05	2.29E-05	2.86E-05	1.56E-05	1.32E-05	1.65E-05	1.90E-05	1.98E-05	2.06E-05	1.06E-05	1.32E-05	3.33E-07	4.75E-07	2.66E-07	4.12E-06
Benzyl Chloride	lb/yr																							
Beryllium	lb/yr	4.04E-04	2.78E-04	4.37E-04	1.76E-04	6.16E-04	7.58E-04	2.16E-04	1.66E-04	4.56E-04	2.67E-04	3.34E-04	1.82E-04	1.54E-04	1.93E-04	2.22E-04	2.31E-04	2.41E-04	1.23E-04	1.54E-04	5.31E-06	7.58E-06	4.24E-06	4.82E-05
Biphenyl	lb/yr																							
Bis(2-ethylhexyl)phthalate (DEHP)	lb/yr																							
Bromine	lb/yr																							
Bromoform	lb/yr																							
Cadmium	lb/yr	4.04E-04	2.78E-04	4.37E-04	1.76E-04	6.16E-04	7.58E-04	2.16E-04	1.66E-04	4.56E-04	2.67E-04	3.34E-04	1.82E-04	1.54E-04	1.93E-04	2.22E-04	2.31E-04	2.41E-04	1.23E-04	1.54E-04	5.31E-06	7.58E-06	4.24E-06	4.82E-05
Carbon Disulfide	lb/yr																							
Chlorine	lb/yr																							
Chlorobenzene	lb/yr																							
Chloroform	lb/yr																							
Chromium	lb/yr	4.04E-04	2.78E-04	4.37E-04	1.76E-04	6.16E-04	7.58E-04	2.16E-04	1.66E-04	4.56E-04	2.67E-04	3.34E-04	1.82E-04	1.54E-04	1.93E-04	2.22E-04	2.31E-04	2.41E-04	1.23E-04	1.54E-04	5.31E-06	7.58E-06	4.24E-06	4.82E-05
Chromic Acid VI	lb/yr	4.04E-04	2.78E-04	4.37E-04	1.76E-04	6.16E-04	7.58E-04	2.16E-04	1.66E-04	4.56E-04	2.67E-04	3.34E-04	1.82E-04	1.54E-04	1.93E-04	2.22E-04	2.31E-04	2.41E-04	1.23E-04	1.54E-04	5.31E-06	7.58E-06	4.24E-06	4.82E-05
Cobalt	lb/yr																							
Cumene	lb/yr																							
Cyanide	lb/yr																							
Dibenzofurans	lb/yr																							
Dichlorobenzene	lb/yr																							
Dimethyl Sulfate	lb/yr																							
Ethyl Benzene	lb/yr																							
Ethyl Chloride	lb/yr																							
Ethylene Dibromide	lb/yr																							
Ethylene Dichloride	lb/yr																							
Ethylene Glycol	lb/yr																							
Ethylene Oxide	lb/yr																							
Fluoride	lb/yr																							
Formaldehyde	lb/yr	0.01	7.30E-03	0.01	4.62E-03	0.02	0.02	5.67E-03	4.36E-03	0.01	7.02E-03	8.78E-03	4.79E-03	4.06E-03	5.07E-03	5.84E-03	6.08E-03	6.33E-03	3.24E-03	4.05E-03	2.09E-03	2.98E-03	1.67E-03	1.27E-03
Glycol Ethers	lb/yr																							
Hexane	lb/yr																							
Hydrogen Chloride	lb/yr																							
Hydrogen Fluoride	lb/yr																							
Isophorone	lb/yr																							
Lead	lb/yr	1.21E-03	8.33E-04	1.31E-03	5.27E-04	1.85E-03	2.27E-03	6.47E-04	4.97E-04	1.37E-03	8.01E-04	1.00E-03	5.46E-04											

