University of North Carolina at Chapel Hill
Chapel Hill, North Carolina
Orange County
Facility ID # 6800043
Permit # 03069T38

2022 Annual Emissions Inventory **Facility Summary**

Pollutant	Units	Boiler #6				Boiler #6	Boiler #7				Boiler #7	Boiler #8		Boiler #8	Boiler #9		Boiler #9	Boiler #10		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
		Natural Gas	Fuel Oil	Wood	Coal	Total	Natural Gas	Fuel Oil	Wood	Coal	Total	Natural Gas	Fuel Oil	Total	Natural Gas	Fuel Oil	Total	Natural Gas	Fuel Oil	Total											
Criteria Pollutants																															
PM	tpy	1.81	0.00	0.00	5.87	7.69	1.80	0.00	0.00	4.83	6.63	0.26	3.15E-02	0.29	0.68	0.10	0.78	0.56	1.89E-02	0.57	2.43E-03	1.68E-03	1.68E-03	6.05E-03	0.84	0.26	0.15		0.18	1.33E-03	2.57E-03
PM-10	tpy	1.81	0.00	0.00	5.87	7.69	1.80	0.00	0.00	4.83	6.63	0.26	9.55E-03	0.27	0.68	3.18E-02	0.71	0.56	5.72E-03	0.56	1.15E-03	1.68E-03	1.68E-03	2.86E-03	0.84	0.26	0.15		0.18	1.33E-03	2.57E-03
PM-2.5	tpy	1.81	0.00	0.00	5.87	7.69	1.80	0.00	0.00	4.83	6.63	0.26	2.39E-03	0.26	0.68	7.95E-03	0.69	0.56	1.43E-03	0.56	3.61E-04	1.59E-03	1.59E-03	9.00E-04	0.80	0.25	0.15		0.18	1.33E-03	2.57E-03
NOx	tpy	26.64	0.00	0.00	26.14	52.78	28.72	0.00	0.00	25.44	54.16	1.90	0.07	1.97	3.98	0.18	4.17	3.70	3.77E-02	3.74							2.89		2.57	2.53E-02	4.88E-02
VOC	tpy	1.31	0.00	0.00	0.11	1.42	1.30	0.00	0.00	0.10	1.40	0.19	1.91E-03	0.19	0.49	6.36E-03	0.50	0.40	1.14E-03	0.40							0.12	0.00	0.21	1.09E-03	2.10E-03
CO	tpy	20.05	0.00	0.00	5.55	25.61	19.91	0.00	0.00	5.13	25.04	2.84	4.78E-02	2.89	7.51	0.16	7.67	6.14	2.86E-02	6.17							0.39		0.55	1.13E-02	2.18E-02
SO2	tpy	0*	0.00	0*	80.55	80.55	0*	0.00	0*	79.48	79.48	2.03E-02	0.05	0.07	0.05	0.20	0.25	4.39E-02	3.54E-02	0.08							0.06		8.82E-04	2.01E-05	3.89E-05
Greenhouse Gases																															
CO2	tpy	31,301	0.00	0.00	54,008	85,309	32,451	0.00	0.00	50,534	82,985	876.8	44.96	921.8	13,826	888.4	14,714	11,848	0.91	11,849							247.7		94.92	2.17	4.19
Methane	tpy	0.54	0.00	0.00	5.85	6.40	0.54	0.00	0.00	5.24	5.78	0.08	8.47E-03	0.09	0.20	2.82E-02	0.23	0.17	5.07E-03	0.17							1.00E-02		3.85E-03	8.79E-05	1.70E-04
Nitrous Oxide	tpy	0.05	0.00	0.00	0.85	0.91	0.05	0.00	0.00	0.76	0.82	7.67E-03	1.69E-03	9.37E-03	2.03E-02	5.64E-03	2.59E-02	1.66E-02	1.01E-03	1.76E-02							2.01E-03		7.70E-04	1.76E-05	3.40E-05
HAPs/TAPs																															
1,3 Butadiene	lb/yr					0.00					0.00			0.00			0.00			0.00									4.55E-02		
2,3,7,8-TCDD	lb/yr			0.00	2.76E-07	2.76E-07			0.00	2.50E-07	2.50E-07			0.00			0.00			0.00											
2,4-Dinitrotoluene	lb/yr				5.40E-03	5.40E-03				4.89E-03	4.89E-03			0.00			0.00			0.00											
2-Chloroacetophenone	lb/yr				0.14	0.14				0.12	0.12			0.00			0.00			0.00											
Acetaldehyde	lb/yr			0.00	11.00	11.00			0.00	9.95	9.95			0.00			0.00			0.00							0.08		0.89	6.70E-04	1.29E-03
Acetic Acid	lb/yr					0.00					0.00			0.00			0.00			0.00											
Acetophenone	lb/yr			0.00	0.29	0.29			0.00	0.26	0.26			0.00			0.00			0.00											
Acrolein	lb/yr			0.00	5.60	5.60			0.00	5.06	5.06			0.00			0.00			0.00							2.39E-02		0.11	2.09E-04	4.05E-04
Ammonia	lb/yr	1,528				1,528	1,517				1,517	216.2		216.2	572.2		572.2	467.8		467.8											
Antimony	lb/yr		0.00	0.00	0.16	0.16		0.00	0.00	0.14	0.14		0.00	0.00		0.00	0.00		0.00	0.00											
Arsenic	lb/yr	0.10	0.00	0.00	0.15	0.24	0.09	0.00	0.00	0.13	0.23	1.35E-02	1.07E-02	2.42E-02	3.58E-02	3.56E-02	0.07	2.92E-02	6.41E-03	3.56E-02							1.22E-02		4.66E-03	1.06E-04	2.05E-04
Benzene	lb/yr	1.00	0.00	0.00	25.09	26.09	1.00	0.00	0.00	22.68	23.68	0.14	0.05	0.19	0.38	0.17	0.55	0.31	3.15E-02	0.34							2.36		1.09	2.06E-02	3.99E-02
Benzo(a)pyrene	lb/yr			0.00	7.33E-04	7.33E-04			0.00	6.63E-04	6.63E-04			0.00			0.00			0.00							7.81E-04		2.19E-04	6.83E-06	1.32E-05
Benzyl Chloride	lb/yr				13.51	13.51				12.21	12.21			0.00			0.00			0.00											
Beryllium	lb/yr	5.73E-03	0.00	0.00	2.55E-02	3.12E-02	5.69E-03	0.00	0.00	2.28E-02	2.85E-02	8.11E-04	8.02E-03	8.83E-03	2.15E-03	2.67E-02	2.89E-02	1.75E-03	4.81E-03	6.56E-03							9.11E-03		3.49E-03	7.97E-05	1.54E-04
Biphenyl	lb/yr				3.28E-02	3.28E-02				2.97E-02	2.97E-02			0.00			0.00			0.00											
Bis(2-ethylhexyl)phthalate (DEHP)	lb/yr				1.41	1.41				1.27	1.27			0.00			0.00			0.00											
Bromine	lb/yr				3.96	3.96				3.55	3.55			0.00			0.00			0.00											
Bromoform	lb/yr				0.75	0.75				0.68	0.68			0.00			0.00			0.00											
Cadmium	lb/yr	0.53	0.00	0.00	0.07	0.59	0.52	0.00	0.00	0.06	0.58	0.07	8.02E-03	0.08	0.20	2.67E-02	0.22	0.16	4.81E-03	0.17							9.11E-03		3.49E-03	7.97E-05	1.54E-04
Carbon Disulfide	lb/yr				2.51	2.51				2.27	2.27			0.00			0.00			0.00											
Chlorine	lb/yr			0.00	52.13	52.13			0.00	46.72	46.72																				
Chlorobenzene	lb/yr			0.00	0.42	0.42			0.00	0.38	0.38			0.00			0.00			0.00											
Chloroform	lb/yr			0.00	1.14	1.14			0.00	1.03	1.03			0.00			0.00			0.00											
Chromium	lb/yr	0.67	0.00	0.00	2.32	2.99	0.66	0.00	0.00	2.08	2.74	0.09	8.02E-03	0.10	0.25	2.67E-02	0.28	0.20	4.81E-03	0.21							9.11E-03		3.49E-03	7.97E-05	1.54E-04
Chromic Acid VI	lb/yr	0.67	0.00		4.63E-03	0.67	0.66	0.00		4.15E-03	0.67	0.09	2.35E-03	0.10	0.25	7.84E-03	0.26	0.20	1.41E-03	0.21										7.97E-05	1.54E-04
Cobalt	lb/yr	4.01E-02	0.00	0.00	0.13	0.17	3.98E-02	0.00	0.00	0.12	0.16	5.68E-03	0.00	5.68E-03	1.50E-02		1.50E-02	1.23E-02	0.00	1.23E-02											
Cumene	lb/yr				0.10	0.10				0.09	0.09			0.00			0.00			0.00											
Cyanide	lb/yr				48.24	48.24				43.62	43.62			0.00			0.00			0.00											
Dibenzofurans	lb/yr				3.88E-03	3.88E-03				3.51E-03	3.51E-03			0.00			0.00			0.00											
Dichlorobenzene	lb/yr	0.57				0.57	0.57				0.57	0.08		0.08	0.21		0.21	0.18		0.18											
Dimethyl Sulfate	lb/yr				0.93	0.93				0.84	0.84			0.00			0.00			0.00											
Ethyl Benzene	lb/yr		0.00	0.00	1.81	1.81		0.00	0.00	1.64	1.64		1.56E-02	1.56E-02		0.05	0.05		9.36E-03	9.36E-03											
Ethyl Chloride	lb/yr				0.81	0.81				0.73	0.73			0.00			0.00			0.00											
Ethylene Dibromide	lb/yr				2.32E-02	2.32E-02				2.09E-02	2.09E-02			0.00			0.00			0.00											
Ethylene Dichloride	lb/yr			0.00	0.77	0.77			0.00	0.70	0.70			0.00			0.00			0.00											
Ethylene Glycol	lb/yr					0.00					0.00			0.00			0.00			0.00											
Ethylene Oxide	lb/yr					0.00					0.00			0.00			0.00			0.00								0.00			
Fluoride	lb/yr		0.00			0.00		0.00			0.00		0.71	0.71		2.37	2.37		0.43	0.43											
Formaldehyde	lb/yr	35.81	0.00	0.00	31.76	67.57	35.56	0.00	0.00	28.46	64.02	5.07	0.92	5.98	13.41	3.05	16.47	10.96	0.55	11.51							0.24		1.37	2.10E-03	4.05E-03
Glycol Ethers	lb/yr					0.00					0.00			0.00			0.00			0.00											
Hexane	lb/yr	859.5			1.29	860.8	853.4			1.17	854.6	121.6		121.6	321.9		321.9	263.1		263.1											
Hydrogen Chloride	lb/yr			0.00	5,261	5,261			0.00	6,488	6,488			0.00			0.00			0.00											
Hydrogen Fluoride	lb/yr				111.0	111.0				99.49	99.49			0.00			0.00			0.00											
Isophorone	lb/yr				11.19	11.19				10.12	10.12			0.00			0.00			0.00											
Lead	lb/yr	0.24	0.00	0.00	0.85	1.09	0.24	0.00	0.00	0.76	1.00	3.38E-02	2.41E-02	0.06	0.09	0.08	0.17	0.07	1.44E-02	0.09							2.73E-02		1.05E-02	2.39E-04	4.62E-04
Manganese	lb/yr	0.18	0.00	0.00	5.79	5.97	0.18	0.00	0.00	5.19	5.37	2.57E-02	1.60E-02	4.17E-02	0.07	0.05	0.12	0.06	9.62E-03	0.07							1.82E-02		6.99E-03	1.59E-04	3.08E-04
Mercury	lb/yr	0.12	0.00	0.00	2.15E-02	0.15	0.12	0.00	0.00	3.36E-02	0.16	1.76E-02	8.02E-03	2.56E-02	4.65E-02	2.67E-02	0.07	3.80E-02	4.81E-03	4.28E-02							9.11E-03		3.49E-03	7.97E-05	1.54E-04
Methyl Chloride	lb/yr			0.00	10.23	10.23			0.00	9.25	9.25			0.00			0.00			0.00											
Methyl Ethyl Ketone	lb/yr			0.00	7.53	7.53			0.00	6.80	6.80			0.00			0.00			0.00											
Methyl Bromide	lb/yr				3.09	3.09				2.79	2.79			0.00			0.00			0.00											
Methyl Chloroform/ 1, 1, 1 Trichloroethane	lb/yr		0.00	0.00	0.39	0.39		0.00	0.00	0.35	0.35		4.51E-03	4.51E-03		1.50E-02	1.50E-02		2.70E-03	2.70E-03											
Methyl Hydrazine	lb/yr				3.28	3.28				2.97	2.97			0.00			0.00			0.00											
Methyl Methacrylate	lb/yr				0.39	0.39				0.35	0.35			0.00			0.00			0.00											
Methyl Tert Butyl Ether	lb/yr				0.68	0.68				0.61	0.61			0.00			0.00			0.00											
Methylene Chloride	lb/yr			0.00	5.60	5.60			0.00	5.06	5.06			0.00			0.00			0.00											
Naphthalene	lb/yr	0.29	0.00	0.00	0.25	0.54	0.29	0.00	0.00	0.23	0.52	4.12E-02	6.36E-03	4.76E-02	0.11	2.12E-02	0.13	0.09	3.81E-03	0.09							0.39		0.10	3.46E-03	6.68E-03
Nickel	lb/yr	1.00	0.00	0.00	4.72	5.72	1.00	0.00	0.00	4.23	5.22	0.14	8.02E-03	0.15	0.38	2.67E-02	0.40	0.31	4.81E-03	0.31							9.11E-03		3.49E-03	7.97E-05	1.54E-04
PAH	lb/yr					0.00					0.00			0.00			0.00			0.00							0.64		0.20	5.63E-03	1.09E-02
Phenol	lb/yr			0.00	0.31	0.31			0.00	0.28	0.28			0.00			0.00			0.00											
Phosphorus	lb/yr			0.00	0.70	0.70			0.00	0.63	0.63																				
POM	lb/yr	0.32	0.00	0.00	1.08	1.40	0.31	0.00	0.00	0.97	1.28	4.47E-02	0.06	0.11	0.12	0.21	0.33	0.10	3.78E-02	0.13											
Propionaldehyde	lb/yr			0.00	7.33	7.33			0.00	6.63	6.63			0.00			0.00			0.00											
Selenium	lb/yr	1.15E-02	0.00	0.00	0.10	0.12	1.14E-02	0.00	0.00	0.09	0.10	1.62E-03	4.01E-02	4.17E-02	4.29E-03	0.13	0.14	3.51E-03	2.40E-02	2.75E-02							4.56E-02		1.75E-02	3.99E-04	7.70E-04
Styrene	lb/yr			0.00	0.48	0.48			0.00	0.44	0.44			0.00			0.00			0.00											
Tetrachloroethylene (Perchloroethylene)	lb/yr				0.83	0.83				0.75	0.75			0.00			0.00			0.00											
Toluene	lb/yr	1.62	0.00	0.00	4.63	6.25	1.61	0.00	0.00	4.19	5.80	0.23	1.52	1.75	0.61	5.07	5.68	0.50	0.91	1.41							0.85		0.48	7.47E-03	1.44E-02
Vinyl Acetate	lb/yr				0.15	0.15				0.13	0.13			0.00			0.00			0.00											
Xylenes	lb/yr		0.00	0.00	0.71	0.71		0.00	0.00	0.65	0.65		2.68E-02	2.68E-02		0.09	0.09		1.60E-02	1.60E-02							0.59		0.33	5.13E-03	9.91E-03

University of North Carolina at Chapel

Chapel Hill, North Carolina

Orange County

Facility ID # 6800043

Permit # 03069T38

2022 Annual Emissions Inventory

Pollutant	Units	New East Emergency Generator	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	McColl Fire Pump	Davis Library Fire Pump
Criteria Pollutants																								
PM	tpy		5.80E-03	4.73E-03	6.42E-03	3.43E-03	5.61E-03	5.99E-03	2.50E-03	2.97E-03	7.22E-03	4.45E-03	5.56E-03	3.61E-03	2.17E-03	3.21E-03	2.92E-03	4.82E-03	3.58E-03	2.91E-03	2.78E-03	5.94E-04	1.03E-03	7.18E-04
PM-10	tpy		5.80E-03	4.73E-03	6.42E-03	3.43E-03	5.61E-03	5.99E-03	2.50E-03	2.97E-03	7.22E-03	4.45E-03	5.56E-03	3.61E-03	2.17E-03	3.21E-03	2.92E-03	4.82E-03	3.58E-03	2.91E-03	2.78E-03	5.94E-04	1.03E-03	7.18E-04
PM-2.5	tpy		5.80E-03	4.73E-03	6.42E-03	3.43E-03	5.61E-03	5.99E-03	2.50E-03	2.97E-03	7.22E-03	4.45E-03	5.56E-03	3.61E-03	2.17E-03	3.21E-03	2.92E-03	4.82E-03	3.58E-03	2.91E-03	2.78E-03	5.94E-04	1.03E-03	7.18E-04
NOx	tpy		0.11	0.09	0.12	0.07	0.11	0.11	4.76E-02	0.06	0.14	0.08	0.11	0.07	4.11E-02	0.06	0.06	0.09	0.07	0.06	0.05	8.45E-03	1.47E-02	1.02E-02
VOC	tpy		4.75E-03	3.88E-03	5.26E-03	2.81E-03	4.59E-03	4.91E-03	2.05E-03	2.44E-03	5.92E-03	3.65E-03	4.56E-03	2.96E-03	1.77E-03	2.63E-03	2.39E-03	3.94E-03	2.94E-03	2.38E-03	2.28E-03	6.90E-04	1.20E-03	8.34E-04
CO	tpy		4.93E-02	4.02E-02	0.05	2.91E-02	4.77E-02	0.05	2.13E-02	2.53E-02	0.06	3.78E-02	4.73E-02	3.07E-02	1.84E-02	2.73E-02	2.48E-02	4.09E-02	3.05E-02	2.47E-02	2.36E-02	1.82E-03	3.17E-03	2.20E-03
SO2	tpy		8.79E-05	7.17E-05	9.73E-05	5.19E-05	8.49E-05	9.08E-05	3.79E-05	4.51E-05	1.09E-04	6.74E-05	8.43E-05	5.47E-05	3.28E-05	4.86E-05	4.43E-05	7.29E-05	5.43E-05	4.41E-05	4.21E-05	2.90E-06	5.05E-06	3.51E-06
Greenhouse Gases																								
CO2	tpy		9.46	7.72	10.47	5.59	9.14	9.77	4.08	4.85	11.78	7.26	9.07	5.89	3.53	5.23	4.76	7.85	5.84	4.75	4.54	0.31	0.54	0.38
Methane	tpy		3.84E-04	3.13E-04	4.25E-04	2.27E-04	3.71E-04	3.96E-04	1.66E-04	1.97E-04	4.78E-04	2.94E-04	3.68E-04	2.39E-04	1.43E-04	2.12E-04	1.93E-04	3.18E-04	2.37E-04	1.92E-04	1.84E-04	1.27E-05	2.21E-05	1.53E-05
Nitrous Oxide	tpy		7.68E-05	6.26E-05	8.49E-05	4.53E-05	7.42E-05	7.93E-05	3.31E-05	3.93E-05	9.55E-05	5.89E-05	7.36E-05	4.78E-05	2.86E-05	4.25E-05	3.86E-05	6.37E-05	4.74E-05	3.85E-05	3.68E-05	2.54E-06	4.41E-06	3.06E-06
HAPs/TAPs																								
1,3 Butadiene	lb/yr																					1.50E-04	2.61E-04	1.81E-04
2,3,7,8-TCDD	lb/yr																							
2,4-Dinitrotoluene	lb/yr																							
2-Chloroacetophenone	lb/yr																							
Acetaldehyde	lb/yr		2.93E-03	2.39E-03	3.24E-03	1.73E-03	2.83E-03	3.02E-03	1.26E-03	1.50E-03	3.64E-03	2.24E-03	2.80E-03	1.82E-03	1.09E-03	1.62E-03	1.47E-03	2.43E-03	1.81E-03	1.47E-03	1.40E-03	2.94E-03	5.12E-03	3.55E-03
Acetic Acid	lb/yr																							
Acetophenone	lb/yr																							
Acrolein	lb/yr		9.15E-04	7.46E-04	1.01E-03	5.40E-04	8.84E-04	9.44E-04	3.95E-04	4.69E-04	1.14E-03	7.02E-04	8.77E-04	5.69E-04	3.41E-04	5.06E-04	4.60E-04	7.59E-04	5.65E-04	4.59E-04	4.38E-04	3.55E-04	6.17E-04	4.28E-04
Ammonia	lb/yr																							
Antimony	lb/yr																							
Arsenic	lb/yr		4.64E-04	3.79E-04	5.14E-04	2.74E-04	4.49E-04	4.79E-04	2.00E-04	2.38E-04	5.78E-04	3.56E-04	4.45E-04	2.89E-04	1.73E-04	2.57E-04	2.34E-04	3.85E-04	2.87E-04	2.33E-04	2.23E-04	1.53E-05	2.67E-05	1.85E-05
Benzene	lb/yr		0.09	0.07	0.10	0.05	0.09	0.09	3.89E-02	4.62E-02	0.11	0.07	0.09	0.06	3.36E-02	4.98E-02	4.53E-02	0.07	0.06	4.52E-02	4.32E-02	3.58E-03	6.22E-03	4.32E-03
Benzo(a)pyrene	lb/yr		2.98E-05	2.43E-05	3.30E-05	1.76E-05	2.88E-05	3.08E-05	1.29E-05	1.53E-05	3.71E-05	2.29E-05	2.86E-05	1.86E-05	1.11E-05	1.65E-05	1.50E-05	2.47E-05	1.84E-05	1.50E-05	1.43E-05	7.21E-07	1.25E-06	8.71E-07
Benzyl Chloride	lb/yr																							
Beryllium	lb/yr		3.48E-04	2.84E-04	3.85E-04	2.06E-04	3.36E-04	3.60E-04	1.50E-04	1.78E-04	4.33E-04	2.67E-04	3.34E-04	2.17E-04	1.30E-04	1.93E-04	1.75E-04	2.89E-04	2.15E-04	1.75E-04	1.67E-04	1.15E-05	2.00E-05	1.39E-05
Biphenyl	lb/yr																							
Bis(2-ethylhexyl)phthalate (DEHP)	lb/yr																							
Bromine	lb/yr																							
Bromoform	lb/yr																							
Cadmium	lb/yr		3.48E-04	2.84E-04	3.85E-04	2.06E-04	3.36E-04	3.60E-04	1.50E-04	1.78E-04	4.33E-04	2.67E-04	3.34E-04	2.17E-04	1.30E-04	1.93E-04	1.75E-04	2.89E-04	2.15E-04	1.75E-04	1.67E-04	1.15E-05	2.00E-05	1.39E-05
Carbon Disulfide	lb/yr																							
Chlorine	lb/yr																							
Chlorobenzene	lb/yr																							
Chloroform	lb/yr																							
Chromium	lb/yr		3.48E-04	2.84E-04	3.85E-04	2.06E-04	3.36E-04	3.60E-04	1.50E-04	1.78E-04	4.33E-04	2.67E-04	3.34E-04	2.17E-04	1.30E-04	1.93E-04	1.75E-04	2.89E-04	2.15E-04	1.75E-04	1.67E-04	1.15E-05	2.00E-05	1.39E-05
Chromic Acid VI	lb/yr		3.48E-04	2.84E-04	3.85E-04	2.06E-04	3.36E-04	3.60E-04	1.50E-04	1.78E-04	4.33E-04	2.67E-04	3.34E-04	2.17E-04	1.30E-04	1.93E-04	1.75E-04	2.89E-04	2.15E-04	1.75E-04	1.67E-04	1.15E-05	2.00E-05	1.39E-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		9.16E-03	7.47E-03	1.01E-02	5.41E-03	8.85E-03	9.46E-03	3.95E-03	4.69E-03	1.14E-02	7.02E-03	8.78E-03	5.70E-03	3.42E-03	5.07E-03	4.61E-03	7.60E-03	5.66E-03	4.59E-03	4.39E-03	4.52E-03	7.87E-03	5.47E-03
Glycol Ethers	lb/yr																							
Hexane	lb/yr																							
Hydrogen Chloride	lb/yr																							
Hydrogen Fluoride	lb/yr																							
Isophorone	lb/yr																							
Lead	lb/yr		1.04E-03	8.52E-04	1.16E-03	6.17E-04	1.01E-03	1.08E-03	4.51E-04	5.35E-04	1.30E-03	8.01E-04	1.00E-03	6.50E-04	3.90E-04	5.78E-04	5.26E-04	8.67E-04	6.45E-04	5.24E-04	5.01E-04	3.45E-05	6.00E-05	4.17E-05
Manganese	lb/yr		6.97E-04	5.68E-04	7.70E-04	4.11E-04	6.73E-04	7.19E-04	3.00E-04	3.57E-04	8.67E-04	5.34E-04	6.68E-04	4.33E-04	2.60E-04	3.85E-04	3.51E-04	5.78E-04	4.30E-04	3.49E-04	3.34E-04	2.30E-05	4.00E-05	2.78E-05
Mercury	lb/yr		3.48E-04	2.84E-04	3.85E-04	2.06E-04	3.36E-04	3.60E-04	1.50E-04	1.78E-04	4.33E-04	2.67E-04	3.34E-04	2.17E-04	1.30E-04	1.93E-04	1.75E-04	2.89E-04	2.15E-04	1.75E-04	1.67E-04	1.15E-05	2.00E-05	1.39E-05
Methyl Chloride	lb/yr																							
Methyl Ethyl Ketone	lb/yr																							
Methyl Bromide	lb/yr																							
Methyl Chloroform/ 1, 1, 1 Trichloroethane	lb/yr																							
Methyl Hydrazine	lb/yr																							
Methyl Methacrylate	lb/yr																							
Methyl Tert Butyl Ether	lb/yr																							
Methylene Chloride	lb/yr																							
Naphthalene	lb/yr		1.51E-02	1.23E-02	1.67E-02	8.91E-03	1.46E-02	1.56E-02	6.51E-03	7.73E-03	1.88E-02	1.16E-02	1.45E-02	9.39E-03	5.63E-03	8.35E-03	7.59E-03	1.25E-02	9.32E-03	7.57E-03	7.23E-03	3.25E-04	5.66E-04	3.93E-04
Nickel	lb/yr		3.48E-04	2.84E-04	3.85E-04	2.06E-04	3.36E-04	3.60E-04	1.50E-04	1.78E-04	4.33E-04	2.67E-04	3.34E-04	2.17E-04	1.30E-04	1.93E-04	1.75E-04	2.89E-04	2.15E-04	1.75E-04	1.67E-04	1.15E-05	2.00E-05	1.39E-05
PAH	lb/yr		2.46E-02	2.01E-02	2.72E-02	1.45E-02	2.38E-02	2.54E-02	1.06E-02	1.26E-02	3.06E-02	1.89E-02	2.36E-02	1.53E-02	9.18E-03	1.36E-02	1.24E-02	2.04E-02	1.52E-02	1.23E-02	1.18E-02	6.44E-04	1.12E-03	7.78E-04
Phenol	lb/yr																							
Phosphorus	lb/yr																							
POM	lb/yr																							
Propionaldehyde	lb/yr																							
Selenium	lb/yr		1.74E-03	1.42E-03	1.93E-03	1.03E-03	1.68E-03	1.80E-03	7.51E-04	8.92E-04	2.17E-03	1.34E-03	1.67E-03	1.08E-03	6.50E-04	9.63E-04	8.76E-04	1.44E-03	1.08E-03	8.73E-04	8.35E-04	5.75E-05	1.00E-04	6.95E-05
Styrene	lb/yr																							
Tetrachloroethylene (Perchloroethylene)	lb/yr																							
Toluene	lb/yr		3.26E-02	2.66E-02	3.61E-02	1.93E-02	3.15E-02	3.37E-02	1.41E-02	1.67E-02	4.06E-02	2.50E-02	3.13E-02	2.03E-02	1.22E-02	1.80E-02	1.64E-02	2.71E-02	2.01E-02	1.64E-02	1.56E-02	1.57E-03	2.73E-03	1.89E-03
Vinyl Acetate	lb/yr																							
Xylenes	lb/yr		2.24E-02	1.83E-02	2.48E-02	1.32E-02	2.16E-02	2.31E-02	9.66E-03	1.15E-02	2.79E-02	1.72E-02	2.15E-02	1.39E-02	8.36E-03	1.24E-02	1.13E-02	1.86E-02	1.38E-02	1.12E-02	1.07E-02	1.09E-03	1.90E-03	1.32E-03

University of North Carolina at Chapel

Chapel Hill, North Carolina

Orange County

Facility ID # 6800043

Permit # 03069T38

2022 Annual Emissions Inventory

Pollutant	Units	Davie Hall Emergency Generator	Ambulatory Care Emergency Generator	Old Dental School Emergency Generator	Lineberger Addition Emergency Generator	McGavran Greenberg Emergency Generator	Morehead Planetarium Emergency Generator	Phillips Hall Emergency Generator	Dean Smith Center Emergency Generator	Med B Emergency Generator	Kenan Stadium Electric Fire Pump	Beard Hall Emergency Generator	Bioinformatics Emergency Generator	Glaxo Emergency Generator	Northeast Chiller Emergency Generator	Carmichael Auditorium Emergency Generator	Hinton James Emergency Generator #2	POB Emergency Generator	Bell Tower PD Emergency Generator	Grouped Insignificant SBs	Davie Hall Small Boiler SB-6	Hydrated Lime Storage Silos	Hydrated Lime Weigh Hopper
Criteria Pollutants																							
PM	tpy	2.97E-03	3.21E-03		1.59E-03	1.75E-03		1.61E-03	3.03E-03	1.06E-03	3.70E-03	1.67E-03	1.67E-03	6.74E-03	1.39E-03	2.93E-03	2.81E-03	2.17E-03	2.07E-03	4.67E-02	4.58E-03	6.54E-05	6.54E-05
PM-10	tpy	2.97E-03	3.21E-03		1.59E-03	1.75E-03		1.61E-03	3.03E-03	1.06E-03	3.70E-03	1.67E-03	1.67E-03	6.74E-03	1.39E-03	2.93E-03	2.81E-03	2.17E-03	2.07E-03	4.67E-02	4.58E-03	6.54E-05	6.54E-05
PM-2.5	tpy	2.97E-03	3.21E-03		1.59E-03	1.75E-03		1.61E-03	3.03E-03	1.06E-03	3.70E-03	1.67E-03	1.67E-03	6.74E-03	1.39E-03	2.93E-03	2.81E-03	2.17E-03	2.07E-03	4.67E-02	4.58E-03	6.21E-05	6.21E-05
NOx	tpy	4.22E-02	0.06	8.72E-03	3.02E-02	3.33E-02	6.09E-03	3.05E-02	4.30E-02	1.51E-02	0.07	3.17E-02	3.17E-02	0.13	2.64E-02	4.16E-02	3.99E-02	3.09E-02	2.95E-02	0.61	0.06		
VOC	tpy	3.44E-03	2.63E-03	6.40E-04	1.30E-03	1.44E-03	4.47E-04	1.31E-03	3.51E-03	1.23E-03	3.03E-03	1.37E-03	1.37E-03	5.52E-03	1.14E-03	3.40E-03	3.26E-03	2.52E-03	2.41E-03	3.38E-02	3.32E-03		
CO	tpy	9.09E-03	2.73E-02	3.63E-03	1.35E-02	1.49E-02	2.54E-03	1.36E-02	9.27E-03	3.25E-03	3.15E-02	1.42E-02	1.42E-02	0.06	1.18E-02	8.97E-03	8.60E-03	6.66E-03	6.35E-03	0.52	0.05		
SO2	tpy	1.45E-05	4.86E-05	2.89E-07	2.41E-05	2.66E-05	2.02E-07	2.43E-05	1.48E-05	5.19E-06	5.61E-05	2.53E-05	2.53E-05	1.02E-04	2.11E-05	1.43E-05	1.37E-05	1.06E-05	1.01E-05	3.69E-03	3.62E-04		
Greenhouse Gases																							
CO2	tpy	1.56	5.23	0.40	2.59	2.86	0.28	2.62	1.59	0.56	6.04	2.72	2.72	10.99	2.27	1.54	1.48	1.14	1.09	737.6	72.35		
Methane	tpy	6.33E-05	2.12E-04	7.48E-06	1.05E-04	1.16E-04	5.22E-06	1.06E-04	6.45E-05	2.26E-05	2.45E-04	1.10E-04	1.10E-04	4.46E-04	9.20E-05	6.24E-05	5.99E-05	4.64E-05	4.42E-05	1.39E-02	1.36E-03		
Nitrous Oxide	tpy	1.27E-05	4.25E-05	7.48E-07	2.11E-05	2.32E-05	5.22E-07	2.12E-05	1.29E-05	4.53E-06	4.90E-05	2.21E-05	2.21E-05	8.92E-05	1.84E-05	1.25E-05	1.20E-05	9.27E-06	8.85E-06	1.39E-03	1.36E-04		
HAPs/TAPs																							
1,3 Butadiene	lb/yr	7.48E-04							7.63E-04	2.68E-04						7.38E-04	7.08E-04	5.48E-04	5.23E-04				
2,3,7,8-TCDD	lb/yr																						
2,4-Dinitrotoluene	lb/yr																						
2-Chloroacetophenone	lb/yr																						
Acetaldehyde	lb/yr	1.47E-02	1.62E-03		8.02E-04	8.84E-04		8.09E-04	1.50E-02	5.25E-03	1.87E-03	8.41E-04	8.41E-04	3.40E-03	7.01E-04	1.45E-02	1.39E-02	1.08E-02	1.03E-02				
Acetic Acid	lb/yr																						
Acetophenone	lb/yr																						
Acrolein	lb/yr	1.77E-03	5.06E-04		2.51E-04	2.77E-04		2.53E-04	1.81E-03	6.33E-04	5.83E-04	2.63E-04	2.63E-04	1.06E-03	2.19E-04	1.75E-03	1.67E-03	1.30E-03	1.24E-03				
Ammonia	lb/yr																						
Antimony	lb/yr																						
Arsenic	lb/yr	7.65E-05	2.57E-04		1.27E-04	1.40E-04		1.28E-04	7.81E-05	2.74E-05	2.96E-04	1.34E-04	1.34E-04	5.39E-04	1.11E-04	7.55E-05	7.24E-05	5.61E-05	5.35E-05				
Benzene	lb/yr	1.79E-02	4.98E-02		2.47E-02	2.72E-02		2.49E-02	1.82E-02	6.39E-03	0.06	2.59E-02	2.59E-02	0.10	2.16E-02	1.76E-02	1.69E-02	1.31E-02	1.25E-02	2.58E-02	2.53E-03		
Benzo(a)pyrene	lb/yr	3.60E-06	1.65E-05		8.18E-06	9.02E-06		8.25E-06	3.67E-06	1.29E-06	1.90E-05	8.58E-06	8.58E-06	3.46E-05	7.15E-06	3.55E-06	3.40E-06	2.64E-06	2.51E-06	1.47E-05	1.45E-06		
Benzyl Chloride	lb/yr																						
Beryllium	lb/yr	5.74E-05	1.93E-04		9.55E-05	1.05E-04		9.63E-05	5.86E-05	2.05E-05	2.22E-04	1.00E-04	1.00E-04	4.04E-04	8.35E-05	5.66E-05	5.43E-05	4.21E-05	4.01E-05				
Biphenyl	lb/yr																						
Bis(2-ethylhexyl)phthalate (DEHP)	lb/yr																						
Bromine	lb/yr																						
Bromoform	lb/yr																						
Cadmium	lb/yr	5.74E-05	1.93E-04		9.55E-05	1.05E-04		9.63E-05	5.86E-05	2.05E-05	2.22E-04	1.00E-04	1.00E-04	4.04E-04	8.35E-05	5.66E-05	5.43E-05	4.21E-05	4.01E-05				
Carbon Disulfide	lb/yr																						
Chlorine	lb/yr																						
Chlorobenzene	lb/yr																						
Chloroform	lb/yr																						
Chromium	lb/yr	5.74E-05	1.93E-04		9.55E-05	1.05E-04		9.63E-05	5.86E-05	2.05E-05	2.22E-04	1.00E-04	1.00E-04	4.04E-04	8.35E-05	5.66E-05	5.43E-05	4.21E-05	4.01E-05				
Chromic Acid VI	lb/yr	5.74E-05	1.93E-04		9.55E-05	1.05E-04		9.63E-05	5.86E-05	2.05E-05	2.22E-04	1.00E-04	1.00E-04	4.04E-04	8.35E-05	5.66E-05	5.43E-05	4.21E-05	4.01E-05				
Cobalt	lb/yr																			1.03E-03	1.01E-04		
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	2.26E-02	5.07E-03		2.51E-03	2.77E-03		2.53E-03	2.30E-02	8.08E-03	5.84E-03	2.63E-03	2.63E-03	1.06E-02	2.20E-03	2.23E-02	2.14E-02	1.65E-02	1.58E-02	0.92	0.09		
Glycol Ethers	lb/yr																						
Hexane	lb/yr																			22.12	2.17		
Hydrogen Chloride	lb/yr																						
Hydrogen Fluoride	lb/yr																						
Isophorone	lb/yr																						
Lead	lb/yr	1.72E-04	5.78E-04		2.86E-04	3.16E-04		2.89E-04	1.76E-04	6.16E-05	6.66E-04	3.00E-04	3.00E-04	1.21E-03	2.50E-04	1.70E-04	1.63E-04	1.26E-04	1.20E-04	6.15E-03	6.03E-04		
Manganese	lb/yr	1.15E-04	3.85E-04		1.91E-04	2.11E-04		1.93E-04	1.17E-04	4.11E-05	4.44E-04	2.00E-04	2.00E-04	8.09E-04	1.67E-04	1.13E-04	1.09E-04	8.41E-05	8.03E-05				
Mercury	lb/yr	5.74E-05	1.93E-04		9.55E-05	1.05E-04		9.63E-05	5.86E-05	2.05E-05	2.22E-04	1.00E-04	1.00E-04	4.04E-04	8.35E-05	5.66E-05	5.43E-05	4.21E-05	4.01E-05				
Methyl Chloride	lb/yr																						
Methyl Ethyl Ketone	lb/yr																						
Methyl Bromide	lb/yr																						
Methyl Chloroform/ 1, 1, 1 Trichloroethane	lb/yr																						
Methyl Hydrazine	lb/yr																						
Methyl Methacrylate	lb/yr																						
Methyl Tert Butyl Ether	lb/yr																						
Methylene Chloride	lb/yr																						
Naphthalene	lb/yr	1.62E-03	8.35E-03		4.14E-03	4.56E-03		4.17E-03	1.66E-03	5.81E-04	9.63E-03	4.34E-03	4.34E-03	1.75E-02	3.62E-03	1.60E-03	1.54E-03	1.19E-03	1.13E-03	7.50E-03	7.35E-04		
Nickel	lb/yr	5.74E-05	1.93E-04		9.55E-05	1.05E-04		9.63E-05	5.86E-05	2.05E-05	2.22E-04	1.00E-04	1.00E-04	4.04E-04	8.35E-05	5.66E-05	5.43E-05	4.21E-05	4.01E-05				
PAH	lb/yr	3.21E-03	1.36E-02		6.75E-03	7.44E-03		6.81E-03	3.28E-03	1.15E-03	1.57E-02	7.08E-03	7.08E-03	2.86E-02	5.90E-03	3.17E-03	3.04E-03	2.35E-03	2.25E-03				
Phenol	lb/yr																						
Phosphorus	lb/yr																						
POM	lb/yr																						
Propionaldehyde	lb/yr																						
Selenium	lb/yr	2.87E-04	9.63E-04		4.77E-04	5.26E-04		4.82E-04	2.93E-04	1.03E-04	1.11E-03	5.01E-04	5.01E-04	2.02E-03	4.17E-04	2.83E-04	2.72E-04	2.10E-04	2.01E-04	2.95E-04	2.89E-05		
Styrene	lb/yr																						
Tetrachloroethylene (Perchloroethylene)	lb/yr																						
Toluene	lb/yr	7.82E-03	1.80E-02		8.94E-03	9.86E-03		9.02E-03	7.98E-03	2.80E-03	2.08E-02	9.38E-03	9.38E-03	3.79E-02	7.82E-03	7.72E-03	7.40E-03	5.73E-03	5.47E-03	4.18E-02	4.10E-03		
Vinyl Acetate	lb/yr																						
Xylenes	lb/yr	5.45E-03	1.24E-02		6.14E-03	6.77E-03		6.20E-03	5.56E-03	1.95E-03	1.43E-02	6.44E-03	6.44E-03	2.60E-02	5.37E-03	5.38E-03	5.16E-03	3.99E-03	3.81E-03				

University of North Carolina at Chapel .
Chapel Hill, North Carolina
Orange County
Facility ID # 6800043
Permit # 03069T38

2022 Annual Emissions Inventory

Pollutant	Units	Fuel Oil Storage Tanks Manning	Fuel Oil Storage Tanks Cogen	2022 Total
Criteria Pollutants				
PM	tpy			17.58
PM-10	tpy			17.47
PM-2.5	tpy			17.38
NOx	tpy			125.3
VOC	tpy	3.24E-02	0.11	4.54
CO	tpy			69.86
SO2	tpy			160.5
Greenhouse Gases				
CO2	tpy			197,119
Methane	tpy			12.70
Nitrous Oxide	tpy			1.78
HAPs/TAPs				
1,3 Butadiene	lb/yr			0.05
2,3,7,8-TCDD	lb/yr			5.25E-07
2,4-Dinitrotoluene	lb/yr			1.03E-02
2-Chloroacetophenone	lb/yr			0.26
Acetaldehyde	lb/yr			22.06
Acetic Acid	lb/yr			0.00
Acetophenone	lb/yr			0.55
Acrolein	lb/yr			10.82
Ammonia	lb/yr			4,301
Antimony	lb/yr			0.30
Arsenic	lb/yr			0.62
Benzene	lb/yr			56.11
Benzo(a)pyrene	lb/yr			2.99E-03
Benzyl Chloride	lb/yr			25.72
Beryllium	lb/yr			0.12
Biphenyl	lb/yr			0.06
Bis(2-ethylhexyl)phthalate (DEHP)	lb/yr			2.68
Bromine	lb/yr			7.51
Bromoform	lb/yr			1.43
Cadmium	lb/yr			1.66
Carbon Disulfide	lb/yr			4.78
Chlorine	lb/yr			98.85
Chlorobenzene	lb/yr			0.81
Chloroform	lb/yr			2.17
Chromium	lb/yr			6.33
Chromic Acid VI	lb/yr			1.91
Cobalt	lb/yr			0.37
Cumene	lb/yr			0.19
Cyanide	lb/yr			91.86
Dibenzofurans	lb/yr			7.39E-03
Dichlorobenzene	lb/yr			1.61
Dimethyl Sulfate	lb/yr			1.76
Ethyl Benzene	lb/yr			3.53
Ethyl Chloride	lb/yr			1.54
Ethylene Dibromide	lb/yr			4.41E-02
Ethylene Dichloride	lb/yr			1.47
Ethylene Glycol	lb/yr			0.00
Ethylene Oxide	lb/yr			0.00
Fluoride	lb/yr			3.51
Formaldehyde	lb/yr			168.5
Glycol Ethers	lb/yr			0.00
Hexane	lb/yr			2,446
Hydrogen Chloride	lb/yr			11,750
Hydrogen Fluoride	lb/yr			210.5
Isophorone	lb/yr			21.31
Lead	lb/yr			2.47
Manganese	lb/yr			11.61
Mercury	lb/yr			0.46
Methyl Chloride	lb/yr			19.47
Methyl Ethyl Ketone	lb/yr			14.33
Methyl Bromide	lb/yr			5.88
Methyl Chloroform/ 1, 1, 1 Trichloroethane	lb/yr			0.76
Methyl Hydrazine	lb/yr			6.25
Methyl Methacrylate	lb/yr			0.73
Methyl Tert Butyl Ether	lb/yr			1.29
Methylene Chloride	lb/yr			10.66
Naphthalene	lb/yr			2.12
Nickel	lb/yr			11.82
PAH	lb/yr			1.32
Phenol	lb/yr			0.59
Phosphorus	lb/yr			1.34
POM	lb/yr			3.25
Propionaldehyde	lb/yr			13.96
Selenium	lb/yr			0.52
Styrene	lb/yr			0.92
Tetrachloroethylene (Perchloroethylene)	lb/yr			1.58
Toluene	lb/yr			22.93
Vinyl Acetate	lb/yr			0.28
Xylenes	lb/yr			2.86