The Pegasus Project Hazardous Air Pollutants Emissions And Health Risk Analysis for 4 GE LM600 Turbines

Natural Gas High Heat Value (HHV) =	1,050.0 Btu/scf		
Annual Turbine Capacity (HHV) @ 66 °F & 100% Load* =	450.0 MMBtu/Hr		
Max Turbine Heat Input (HHV) @ 24 °F & 100% Load** =	467.5 MMBtu/Hr		
Annual Fuel Rate =	0.429 MMscf/hour	Max Fuel Rate =	0.445 MMscf/hr

Maximum Impacts from 1 gram per second ISCT3 Air Dispersion Modeling & Location of Impacts				
Averaging Time	Max Impact	Unit	UTM Coordinates	
4 CTGs 1-hour Maximum Impact =	12.618	$(\mu g/m^3)/(g/s)$	438,012	3,763,778
4 CTGs Annual Maximum Impact =	0.6715136	$(\mu g/m^3)/(g/s)$	439,612	3,761,078

Hazardous Air Pollutants Emission Factors & Plant Sources Emission Rates				Risk Assessment Health Values					Hazard Indices & Cancer Risk			Hazard Indices & Cancer Risks Adjusted for Multipathway		
HAP	CATEF Emission Factor*** (lbs/MMcf)	Each Turbine Max. Emissions (g/s)	Each Turbine Avg. Annual Emissions (g/s)	Acute RELs $(\mu g/m^3)$	Chronic RELs $(\mu g/m^3)$	Chronic MPAF	Cancer Potency $(\mu g/m^3)^{-1}$	MICR MPAF	Acute Hazard Index	Chronic Hazard Index	Inhalation Cancer Risks Per Million	Acute Hazard Index	Chronic Hazard Index	Max Individual Cancer Risks Per Million
Acetaldedyde	6.86E-02	3.85E-03	3.71E-03		9.0E+00	1.0	2.7E-06	1.0		2.8E-04	6.7E-03		2.8E-04	6.7E-03
Acrolein	2.73E-02	1.53E-03	1.48E-03	1.9E-01	2.0E-02	1.0			1.0E-01	5.0E-02		1.0E-01	5.0E-02	
Ammonia (1)	7.14E+00	4.01E-01	3.86E-01	3.2E+03	2.0E+02	1.0			1.6E-03	1.3E-03		1.6E-03	1.3E-03	
Benzene	1.36E-02	7.63E-04	7.35E-04	1.3E+03	6.0E+01	1.0	2.9E-05	1.0	7.4E-06	8.2E-06	1.4E-02	7.4E-06	8.2E-06	1.4E-02
Benzo(a)anthracene	2.26E-05	1.27E-06	1.22E-06				1.1E-04	12.7			9.0E-05			1.1E-03
Benzo(a)pyrene	1.39E-05	7.79E-07	7.51E-07				1.1E-03	12.7			5.5E-04			7.0E-03
Benzo(b)fluoranthene	1.13E-05	6.34E-07	6.11E-07				1.1E-04	12.7			4.5E-05			5.7E-04
Benzo(k)fluoranthene	1.10E-05	6.17E-07	5.95E-07				1.1E-04	12.7			4.4E-05			5.6E-04
1,3-Butadiene	1.27E-04	7.12E-06	6.86E-06				1.7E-04	1.0			7.8E-04			7.8E-04
Chrysene	2.52E-05	1.41E-06	1.36E-06				1.1E-05	12.7			1.0E-05			1.3E-04
Dibenz(a.h)anthracene	2.35E-05	1.32E-06	1.27E-06				1.2E-03	12.7			1.0E-03			1.3E-02
Formaldehyde	1.10E-01	6.17E-03	5.95E-03	9.4E+01	3.0E+00	1.0	6.0E-06	1.0	8.3E-04	1.3E-03	2.4E-02	8.3E-04	1.3E-03	2.4E-02
Indeno(1,2,3-cd)pyrene	2.35E-05	1.32E-06	1.27E-06				1.1E-04	12.7			9.4E-05			1.2E-03
Naphthalene	1.66E-03	9.31E-05	8.97E-05		9.0E+00	1.0				6.7E-06			6.7E-06	
Propylene Oxide	4.78E-02	2.68E-03	2.58E-03	3.1E+03	3.0E+01	1.0	3.7E-06	1.0	1.1E-05	5.8E-05	6.4E-03	1.1E-05	5.8E-05	6.4E-03
Toluene	7.10E-02	3.98E-03	3.84E-03	3.7E+04	3.0E+02	1.0			1.4E-06	8.6E-06		1.4E-06	8.6E-06	
Xylene (Total)	2.61E-02	1.46E-03	1.41E-03	2.2E+04	7.0E+02	1.0			8.4E-07	1.4E-06		8.4E-07	1.4E-06	
		4.21E-01	4.06E-01						1.04E-01	5.25E-02	5.41E-02	0.10408	0.05253	0.07584

* With inlet air chiller on

**Heat Input for the short term case is for 24 degrees, 100% load, inlet air chiller off, and water injection off.

*** Mean California Air Toxic Emission Factors (CATEF), Version 1.2 are used.

(1) Ammonia Emissions are based on 5 ppmdv maximum ammonia slip @ 15% Oxygen