Turbine Operation Worst-Case Analysis - Results

Source Parameters		Emission Rate (g/s)								Unified Modeled Impacts (ug/m3)[1]				Scaled Impacts (ug/m3)[1,2]							
Source ID	Source Description	PM10/ PM2.5	NOx	CO	NH3	Formal dehyde	H2SO4	Toulene	Xylene	1-hr	8-hr	24-hr	Annual	PM_{10}/ $PM_{2.5}$ (24-hr)	PM_{10}/ $PM_{2.5}$ (Annual)	NOx (Annual)	NH_3 (1-hr)	Formald ehyde (1-hr)	H_2SO_4 (1-hr)	Toulene (1-hr)	Xylene (1-hr)
HRGS_C1	South Turbine Stack - Case 1	1.66	2.77	1.64	2.52	0.04	0.09	0.05	0.02	0.958	0.395	0.169	0.011	0.568	0.036	0.060	4.816	0.078	0.169	0.092	0.045
HRGN_C1	NorthTurbine Stack - Case 1	1.66	2.77	1.64	2.52	0.04	0.09	0.05	0.02	0.953	0.399	0.172	0.011								
HRGS_C3	South Turbine Stack - Case 3	1.14	1.89	1.14	1.76	0.03	0.06	0.03	0.02	1.215	0.619	0.270	0.018	0.610	0.040	0.066	4.228	0.066	0.151	0.078	0.038
HRGN_C3	NorthTurbine Stack - Case 3	1.14	1.89	1.14	1.76	0.03	0.06	0.03	0.02	1.182	0.612	0.267	0.018								
HRGS_C4	South Turbine Stack - Case 4	1.68	2.77	1.64	2.52	0.04	0.09	0.05	0.02	0.951	0.391	0.167	0.011	0.566	0.036	0.059	4.786	0.077	0.167	0.091	0.045
HRGN_C4	NorthTurbine Stack - Case 4	1.68	2.77	1.64	2.52	0.04	0.09	0.05	0.02	0.948	0.395	0.170	0.011								
HRGS_C7	South Turbine Stack - Case 7	1.15	1.89	1.14	1.76	0.03	0.06	0.03	0.02	1.214	0.617	0.269	0.018	0.615	0.040	0.066	4.224	0.065	0.151	0.077	0.038
HRGN_C7	NorthTurbine Stack - Case 7	1.15	1.89	1.14	1.76	0.03	0.06	0.03	0.02	1.181	0.610	0.267	0.018								
HRGS_C8	South Turbine Stack - Case 8	1.60	2.65	1.64	2.39	0.04	0.08	0.05	0.02	0.986	0.412	0.176	0.011	0.569	0.036	0.060	4.691	0.075	0.148	0.089	0.044
HRGN_C8	NorthTurbine Stack - Case 8	1.60	2.65	1.64	2.39	0.04	0.08	0.05	0.02	0.974	0.415	0.179	0.011								
HRGS_C11	South Turbine Stack - Case 11	1.11	1.77	1.14	1.64	0.03	0.05	0.03	0.02	1.227	0.632	0.276	0.018	0.611	0.040	0.064	3.965	0.063	0.122	0.074	0.037
HRGN_C11	NorthTurbine Stack - Case 11	1.11	1.77	1.14	1.64	0.03	0.05	0.03	0.02	1.194	0.625	0.274	0.018								
HRGS_C12	South Turbine Stack - Case 12	1.77	2.65	1.64	2.39	0.04	0.08	0.04	0.02	1.049	0.454	0.196	0.013	0.695	0.045	0.067	4.958	0.078	0.157	0.088	0.043
HRGN_C12	NorthTurbine Stack - Case 12	1.77	2.65	1.64	2.39	0.04	0.08	0.04	0.02	1.022	0.454	0.198	0.013								
HRGS_C14	South Turbine Stack - Case 14	1.49	2.52	1.51	2.27	0.04	0.08	0.04	0.02	1.022	0.435	0.186	0.012	0.558	0.036	0.060	4.587	0.073	0.153	0.086	0.042
HRGN_C14	NorthTurbine Stack - Case 14	1.49	2.52	1.51	2.27	0.04	0.08	0.04	0.02	1.000	0.436	0.189	0.012								
HRGS_C17	South Turbine Stack - Case 17	1.06	1.64	1.01	1.51	0.02	0.05	0.03	0.01	1.240	0.647	0.283	0.018	0.598	0.039	0.060	3.697	0.059	0.123	0.070	0.034
HRGN_C17	NorthTurbine Stack - Case 17	1.06	1.64	1.01	1.51	0.02	0.05	0.03	0.01	1.206	0.642	0.281	0.018								
HRGS_C18	South Turbine Stack - Case 18	1.72	2.52	1.51	2.39	0.04	0.08	0.04	0.02	1.075	0.477	0.204	0.013	0.704	0.046	0.067	5.081	0.076	0.160	0.085	0.042
HRGN_C18	NorthTurbine Stack - Case 18	1.72	2.52	1.51	2.39	0.04	0.08	0.04	0.02	1.047	0.477	0.206	0.013								
HRGS_C20	South Turbine Stack - Case 20	1.39	2.27	1.39	2.14	0.03	0.08	0.04	0.02	1.049	0.455	0.252	0.013	0.694	0.035	0.057	4.437	0.070	0.157	0.082	0.041
HRGN_C20	NorthTurbine Stack - Case 20	1.39	2.27	1.39	2.14	0.03	0.08	0.04	0.02	1.022	0.455	0.249	0.013								
HRGS_C23	South Turbine Stack - Case 23	1.01	1.51	0.88	1.39	0.02	0.05	0.03	0.01	1.252	0.661	0.290	0.019	0.583	0.038	0.057	3.446	0.055	0.125	0.065	0.032
HRGN_C23	NorthTurbine Stack - Case 23	1.01	1.51	0.88	1.39	0.02	0.05	0.03	0.01	1.235	0.661	0.288	0.019								
HRGS_C24	South Turbine Stack - Case 24	1.69	2.52	1.51	2.27	0.04	0.08	0.04	0.02	1.086	0.487	0.209	0.014	0.708	0.046	0.069	4.863	0.076	0.162	0.083	0.041
HRGN_C24	NorthTurbine Stack - Case 24	1.69	2.52	1.51	2.27	0.04	0.08	0.04	0.02	1.058	0.488	0.210	0.014								
HRGS_C26	South Turbine Stack - Case 26	1.27	2.02	1.26	1.89	0.03	0.06	0.04	0.02	1.094	0.496	0.212	0.014	0.540	0.035	0.055	4.080	0.065	0.136	0.077	0.038
HRGN_C26	NorthTurbine Stack - Case 26	1.27	2.02	1.26	1.89	0.03	0.06	0.04	0.02	1.065	0.497	0.211	0.014								
HRGS_C28	South Turbine Stack - Case 28	1.01	1.39	0.88	1.39	0.02	0.05	0.02	0.01	1.269	0.672	0.295	0.019	0.594	0.038	0.053	3.507	0.053	0.128	0.063	0.031
HRGN_C28	NorthTurbine Stack - Case 28	1.01	1.39	0.88	1.39	0.02	0.05	0.02	0.01	1.261	0.674	0.293	0.019								

Notes:

(1) Impacts based on modeling at an emission rate of 1 g/s for each turbine stack. The unified impacts are multiplied with the actual emission rates to obtain scaled impacts. See example below:

$PM_{2.5}/PM_{10}$ 24-hour Scaled Impacts for Operating Case 1: (1.69 g/s x 0.169 ug/m3) + (1.69 x 0.172 ug/m3) = 0.568 ug/m3

(2) Shaded results represent the maximum impacts for the pollutant/averaging period.