

GGG Baseline Determination

Distillate Oil-Fired Emissions (Barges 1, 2, 3, 4)

Fuel Heat Value (Btu/gal)	136,661
Barge 1 & 4 2004 (gal/yr)	4,215,100
Barge 1 & 4 2005 (gal/yr)	10,766,000
Barge 2 & 3 2004 (gal/yr)	401,700
Barge 2 & 3 2005 (gal/yr)	518,800
Sum Barge 1 & 4 (2004-2005) (gal/yr)	14,981,100
Sum Barge 2 & 3 (2004-2005) (gal/yr)	920,500

2004 liquid fuel consumed (gal)	4,616,800
2005 liquid fuel consumed (gal)	11,284,800
24 Month Consecutive Total Liquid Consumption Sum Barges 1, 2, 3, 4 (gal/yr)	15,901,600

Pollutant	Emission Factor (lb/MMBtu)	Emission Factor Source	Lbs per 2-Year period	Lbs per Year	Tons per Year
CO	0.0033	AP-42	7,171	3,586	1.8
NOx					611.7
Barge 1 & 4	0.686	ST	1,490,766	745,383	372.7
Barge 2 & 3	0.44	ST	956,177	478,088	239.0
Lead	1.40E-05	AP-42	30	15	0.01
SO2			375,957	187,979	94.0
2004	0.1515	AP-42	95,587	47,793	23.9
2005	0.1818	AP-42	280,371	140,185	70.1
VOC					5.4
Barge 1 & 4	0.0004	AP-42	869	435	0.2
Barge 2 & 3	0.00959	ST	20,840	10,420	5.2
PM (Condensable)	7.20E-03	AP-42	15,647	7,823	3.9
PM (Filterable)	1.80E-02	ST	39,116	19,558	9.8
PM (Total)	2.50E-02	AP-42 & ST	54,328	27,164	13.6

AP-42 = EPA's Compilation of Air Pollution Emission Factors, Section 3.1, Stationary Gas Turbines for Electricity Generation (April 2000).

ST = Emission factor derived from site specific stack testing.

Natural Gas-Fired Emissions (Barges 2, 3)

Fuel Heat Value: 1,037 Btu/scf

24 Month Consecutive Total Gas

Consumption 3,530,800 MCFs

Pollutant	Emission Factor (lb/MMBtu)	Emission Factor Source	Lbs per 2-Year period	Lbs per Year	Tons per Year
CO	0.082	AP-42	300,238	150,119	75.1
NOx	0.261	ST	955,636	477,818	238.9
Lead	ND	AP-42	ND	ND	0.0
SO2	0.0034	AP-42	12,449	6,224	3.1
VOC	3.54E-03	ST	12,961	6,481	3.2
PM (Total)	6.60E-03	AP-42	24,166	12,083	6.0

AP-42 = EPA's Compilation of Air Pollution Emission Factors, Section 3.1, Stationary Gas Turbines for Electricity Generation (April

ST = Emission factor derived from site specific stack testing.

GGS Baseline Determination

Starter Diesels Oil-Fired Emissions (Barges 1, 2, 3, 4)

Fuel Heat Value: 136,689 Btu/gal
 24 Month Total Liquid Consumption 32,900 gal/yr

Pollutant	Emission Factor (lb/MMBtu)	Emission Factor Source	Lbs per 2-Year period	Lbs per Year	Tons per Year
CO	0.95	AP-42	4,272	2,136	1.1
NOx	4.41	AP-42	19,832	9,916	5.0
Lead	ND	AP-42	ND	ND	0.0
SO2	0.29	AP-42	1,304	652	0.3
VOC	0.35	AP-42	1,574	787	0.4
PM (Total)	3.10E-01	AP-42	1,394	697	0.3

AP-42 = EPA's Compilation of Air Pollution Emission Factors, Section 3.3, Uncontrolled Gasoline and Diesel Industrial Engines,

GGS Baseline (2004 - 2005)

Pollutant	Tons per Year
CO	77.92
NOx	855.60
Lead	0.01
SO2	97.43
VOC	9.06
PM (Total)	19.97