

Forehearth Emission Summary
Arglass Yamamura, LLC.
Valdosta Georgia

Forehearths LT11, LT12 and LT13 during Emergency Backup Fuel Firing

Firing Rate and Fuel Use (Liquified Petroleum Gas (LPG)): ⁽¹⁾	
Maximum Fuel Rate (gal/hr)	144
Heating value of Fuel (BTU/gal) ⁽²⁾	95,045
Total Firing Rate for 4 Forehearths (MMBtu/hr)	13.7
Total Annual Operating Hours (hr/yr)	160
Maximum Annual Heat Input (MMBtu/yr)	2,184
Maximum Annual Fuel Usage (gal/yr)	22,978
Emission Factors (lb/Mgal) ⁽³⁾	
CO	7.5
NOx	13
SO2	0.002
PM/PM-10/PM-2.5	0.7
VOC	0.8
Hourly Emissions (lb/hr)	
CO	1.08
NOx	1.867
SO2	0.000
PM/PM-10/PM-2.5	0.101
VOC	0.115
Annual Emissions (TPY)	
CO	0.086
NOx	0.149
SO2	0.000
PM/PM-10/PM-2.5	0.008
VOC	0.009

Notes:

- (1) Heat Inputs and firing rates are calculated for four (4) forehearths combined.
- (2) Heating value of LPG will be adjusted via mixers such that it is equivalent to the heating value of natural gas. The heating value of 1020 BTU/SCF for natural gas is converted to BTU/gal using the densities of 0.044 lb/scf for natural gas and 4.1 lb/gal for LPG.
- (3) Emission factors are based on AP-42 Table 1.5-1 for LPG combustion for commercial boilers; calculations assume a sulfur content of 185 ppmw per Gas Processors Association.
- (3) Calculated based on emission factors in 40 CFR 98 Subpart C, Tables C-1 & C-2