

Engineering Bulletin

Ely Energy Inc.

Bulletin: 013 / Flare Emissions R030803



NOTE TO USER

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Flare Emissions

The SURE-LITE™ Flare head design is a multiple venturi head design. It pulls in primary air to maintain a stable flame at very high flow rates. The secondary air is pulled in from the surrounding atmosphere. Maximum SNG flow rates are approximately 100MMBTU/h or 67MMScfh of SNG at approximately 1500 Btu/scf.

Standard EMISSIONS: (assumes complete combustion)

		<u>SNG</u>
lb CO ₂ /ft ³ fuel	0.19	0.35
lb. H ₂ O/ft ³ fuel	0.10	0.19
lb. N ₂ /ft ³ fuel	0.76	1.39
lb. O ₂ /ft ³ fuel	0.00	0.00

During initial start-up, a flare for SNG will typically operate for approximately 15-30 minutes. The start-up flow will be at an approximate rate of 35MMBtu/hr, or a flow rate of 23.33scfh.

The resulting emissions are:

	<u>SNG</u>
lb. CO ₂	4.327
lb. H ₂ O	2.333
lb. N ₂	17.731
lb. O ₂	0.00

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