

## BIO-GAS FLARES



Bio-gas and Landfill flares are flare systems designed specifically to dispose of gases produced in a waste treatment or disposal system. The organic waste produces methane gas and carbon dioxide gas in about equal quantities.

Two types of flares are typically employed:

- **ELEVATED FLARE**
- **TOTALLY ENCLOSED GROUND FLARE**

Open flame units have been a standard design for many years. Combustion takes place on top of a specially designed flare burner. Stacks must be sized with enough height to limit radiation level at grade. The elevated flare does not have the flexibility to allow temperature control, air control, or sampling of combustion products. However, it does provide stable combustion in extreme climatic conditions. The elevated flare is normally the most cost-effective way of safely disposing of waste gases.

Enclosed ground flares are designed such that the whole combustion takes place in a refractory-lined chamber. No flame should be visible outside the unit. These units are used when a visible fire is not allowed. Enclosed flares also offer more control of the combustion process in relation to combustion temperature and residence time.

Complete flare systems are designed to give automatic flaring on demand.

