

**State-of-the-art  
technology from a state-  
of-the-art company**

*The limited resources of fossil fuels is forcing us to adopt the most economic courses of action possible for supplying electricity and heat. Autonomous generation of heat and power simultaneously in cogeneration plants is one such course. At the moment it constitutes the most economic method of converting energy— with out the transmission of losses— into power and heat directly where they are consumed. In terms of primary energy input a cogeneration module achieves an efficiency of nearly 90%.*

*LFG Technologies can get you there!*



**From small 55 kW to more than 10 megawatt projects, LFG Tech can supply them all.**

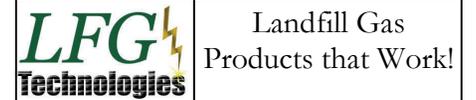
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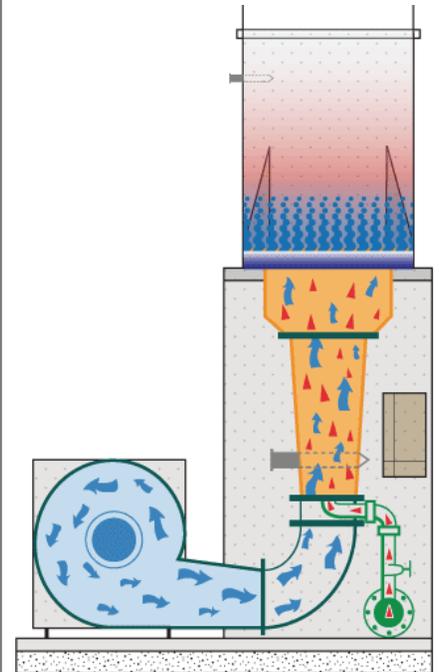
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**Landfill Gas  
Low NOX  
Low Emissions  
Enclosed Flares**



**LFG Technologies, Inc.**

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## Why this Innovative New Technology Is Innovative

LFG Tech introduces a new product to the North American landfill gas industry known as the Low Emission Flare, or simply the LEF. The LEF is based on proven premix surface combustion principles, existing for over 30 years in various markets and industries. The LEF was recently introduced to the US landfill industry to combat the growing greenhouse gas issues and to further reduce the high NOx and CO emissions, emitted from traditional open flares or standard enclosed flares. The LEF is an innovative technology because it utilizes a metal fiber mat, constructed from a Fecralloy base metal, to anchor the flame to the burner head. The methane gas from the landfill is extracted by traditional methods and then enters the LEF unit where it is mixed with outside air to create a fully premixed gas/air mixture. Once the gas and air are mixed, the flow enters the burner where it is ignited and then burns in a uniform blue flame pattern, similar to thousands of small Bunsen burners, across the surface of the burner. The unit is controlled by a variable frequency air blower that adjusts based on stack temperature, to ensure emissions are maintained at the desired level.

The LEF unit offers numerous technical and environmental features over con-

ventional technology used in the landfill gas industry. One of the driving reasons the LEF is becoming the new standard in the landfill gas industry is the very low NOx and CO emissions. The LEF system is able to maintain NOx emissions less than 15 ppm and CO emission less than 10 ppm, independent of the flow, gas composition, pressure, or time of year/weather conditions. Traditional open flares and enclosed flares emit well over 75ppm of both NOx and CO emissions and these emissions are made variable by ambient weather conditions. In addition to the very low NOx and CO emissions, the LEF unit is capable of maintaining a 99.99% destruction efficiency, which is magnitudes better than traditional flaring technology only capable of achieving 98% Destruction Efficiency.

In addition to the low emissions, the LEF also offers many important site features valued in the Landfill Gas industry. The LEF unit has a very small and compact design, approximately 50% smaller than comparable technology when considering similar capacities. The total height of the unit is less than 20ft tall and the footprint is approximately 10ft x 10ft. This allows landfills to install the unit in only a few days and in a very unobtrusive manner. The LEF units also operate at very low noise levels, the flame is hidden and the combustion process is without any soot or smoke.



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