

# FOX APPLICATION GUIDE

## Thermal Flow Meters Help in Landfill Gas Recovery Projects

### TYPICAL APPLICATIONS INCLUDE:

- Municipal Solid Waste Landfills
- Industrial Waste Landfills
- Landfill Gas to Energy Facilities

### Reducing Fuel Costs with Recovered Landfill Gas

Landfill Gas to Energy (LFGTE) facilities typically extract gases from multiple wellheads, which are connected to a common header pipe, and then recovered for a variety of uses, including:

- Fueling on-site engines or turbines
- Generating electricity for surrounding homes and businesses
- Conversion to Liquid Natural Gas, a clean vehicle fuel

Accurate flow monitoring is essential for gathering system-wide information on the amount of gas being extracted, flared or recovered. Some of the measurement challenges in the LFG environment are changing gas compositions, varying flow rates caused by seasonal temperature changes, and wet, dirty and potentially flammable gases.

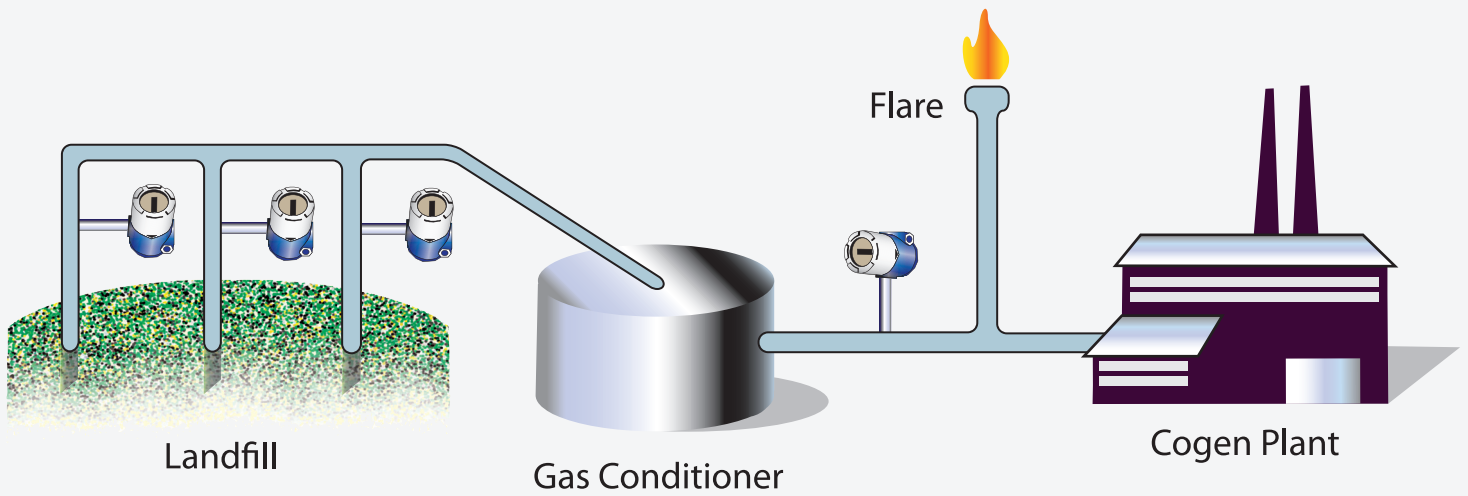
### Compliance with Emissions Reporting Regulations

Landfill Gas (LFG) contains methane, a potent greenhouse gas. The United States Environmental Protection Agency (EPA) requires landfill operators to collect the methane produced on-site, and where it is not being used for energy production, it must be flared to prevent its release to the atmosphere.

As more countries across the globe move toward net zero emissions, there is an expectation that regulations for methane from sources like landfills will be broadened. Currently, municipal solid waste landfills are subject to the requirements of EPA's 40 CFR Part 98 Subpart HH. Industrial waste landfills are subject to the requirements of EPA's 40 CFR Part 98 Subpart TT. Each of these rules spell out important information such as the emissions reporting required and the calculation requirements. It also lists the separate requirements for landfills with gas collection systems in place.



Landfill facilities are beginning to recover landfill gas to use as fuel gas.



Recovered landfill gas can be used to power equipment and processes.

## Advantages of the Thermal Mass Flow Meter from Fox Thermal

Fox Thermal Mass Flow Meters can help LFGTE operators comply with clean air regulations, as well as improve the operation of co-gen engines or methane oxidizers. With turndowns from 100:1, specified accuracy of +/- 1% of reading plus .2% of full scale, and repeatability of +/- .2% of full scale, Fox Flow Meters exceed the requirements of EPA's 40 CFR Part 98 Subpart HH and Subpart TT.

Check out these great features offered with thermal mass flow measurement:

- Exceptional low-flow sensitivity for accurate measurement over a wide range of flaring operations
- Stainless steel sensor is suitable for corrosive, particulate-laden gas streams
- No temperature and pressure compensation required
- Direct mass flow measurement
- Built-in alarms, totalizers and a wide variety of communications protocols available for easy interfacing with emissions management systems



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Gas-SelectX® is a valuable feature available on the FT1 and FT4A that allows the user to program the gas component settings in the flow meter.