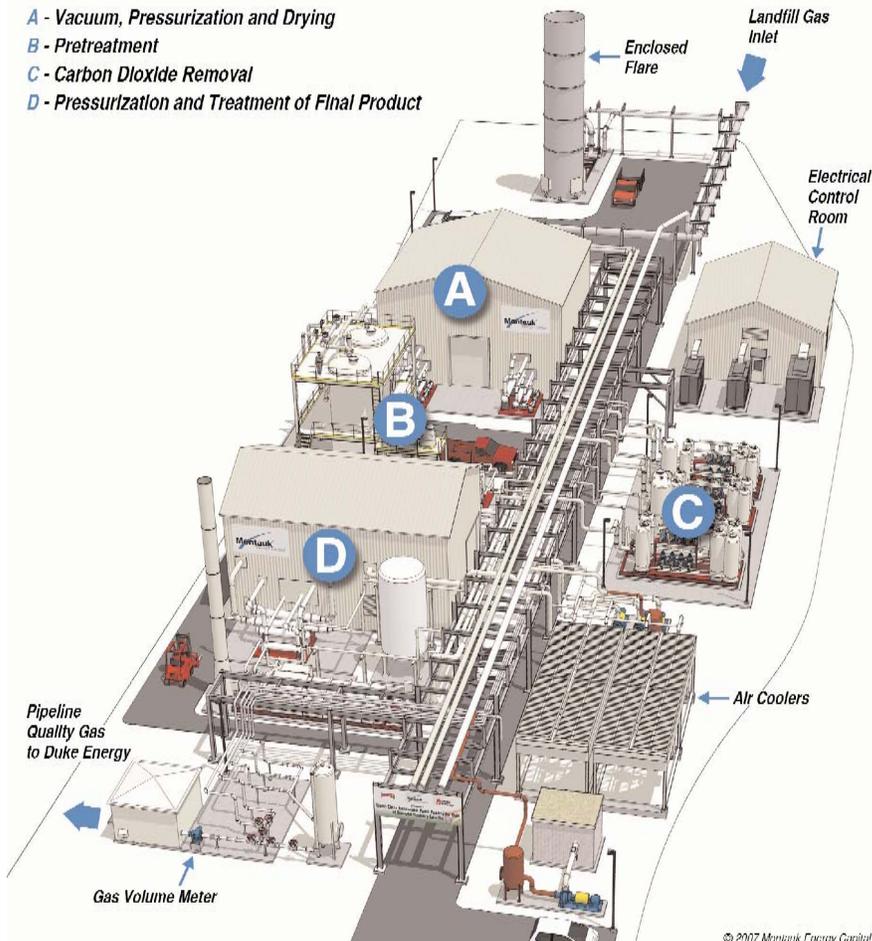


Landfill Gas Recovery Plant and Flare System at Rumpke Sanitary Landfill

- A - Vacuum, Pressurization and Drying
- B - Pretreatment
- C - Carbon Dioxide Removal
- D - Pressurization and Treatment of Final Product



Additionally, state and federal regulations and air permits require continued expansion, monitoring and maintenance of a gas collection system within rigid operating standards. An integral part of that process is continuously extracting methane from the landfill.

Rumpke has opted to employ a system that is a renewable energy source for the region. Often, other sites flare all of the landfill gas, but at Rumpke on-site gas plants are used to purify as much landfill gas as possible for use as a local renewable energy source. The gas recovery operation is capable of recovering enough renewable energy to heat 25,000 local homes and businesses.

The system includes 200 landfill gas recovery wells. Typical landfill gas is 50% methane and 50% carbon dioxide and ranges in temperature from 100 to 150 degrees Fahrenheit.

When the system is operating at maximum efficiency Rumpke works with Gas Recovery Contractor Montauk Energy to send more than 98% of the gas to three gas plants on site for processing and purification into natural gas, however, if the gas being removed fails to meet qualifying standards for use as natural gas, then the gas still must be removed. In these instances, the gas is released through flares. Rumpke has three flares on site.

Two are located in the gas plant area on the east side of the site and the third is a candlestick flare located on the northwest side of the site. The candlestick flare is visible from Route 27. The flares are used periodically to incinerate landfill gas that cannot be purified into natural gas.

The flares pose no health risk, but instead are useful and necessary to remove landfill gas. Flaring landfill gas is a very common practice at landfills throughout the country.

Rumpke Sanitary Landfill has operated in Colerain Township since 1945. Annually, the landfill receives as much as 2 million tons of waste from a 60 mile radius. Acceptable waste includes municipal solid waste, no hazardous materials are permitted.

As garbage begins to decompose methane gas is given off, and since 1986 Rumpke has been recovering that gas to purify into natural gas.

One of Rumpke's chief priorities is maintaining a high quality of life in Colerain Township and surrounding areas. A critical component in reaching this objective is minimizing off-site emissions and odors by continued expansion and optimal operation of a landfill gas collection system.



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