South Side Landfill
LFG Recovery and Utilization:
A Look at the Past with
An Eye to the Future
Early Project Development

Well field installation

Well Drilling at South Side

Gas Well at South Side

Experimental Phase: First Wells Drilled in 1985
Early Project Development

LFG Extraction Station

Investigative Phase:
First Blower Station Installed in 1989
Early Project Development

Flare installation

Flares at South Side Landfill

Investigative Phase: Began Flaring in 1989
Early Project Development

Greenhouse boilers

1st Commercial Phase: Boilers Installed in 1989
First Flowers Delivered in 1990
Early Project Development

On-site IC generators

1st Commercial Phase:
Generators Installed in 1989

Waukesha Generator

Chevy Generator
The Project Expands With Granger

LFG Compression Station

⊕ Production capacity: 175,000,000 cu ft/month

LFG Compression and Treatment Facility

Pneumatech Refrigerated Gas Dryer

2\textsuperscript{nd} Commercial Phase:
Plant Started in August 1999
The Project Expands With Granger

Rolls Royce Plant 5

Consumption range:
68,000,000 – 175,000,000 cu ft/month

Pipeline to Rolls Royce
7200 ft. 12 inch HDPE

Rolls-Royce Boilers

2nd Commercial Phase:
First Fire on LFG in October 1999
The Project Expands With Granger

Award winning project

2000 Indiana Governor’s Award for Excellence in Pollution Prevention

2001 EPA Landfill Methane Outreach Program – Industry Ally of the Year

Rolls Royce Receives Recognition For Being Environmentally Friendly
Gas Production at South Side Landfill

Produced
Delivered
One Solution for Seasonal Consumption at Rolls Royce

Electrical Generation with Rolls Royce Gas Turbine

5 MW Rolls-Royce Turbine

Consumption: 80,000,000 – 90,000,000 cu ft/month
5-Megawatt Turbine Project Overview

Pipeline extension to Rolls-Royce Plant 8

3400 ft. 12 inch HDPE

High Pressure Compression Station

10 psig to 300 psig

Sliding Vane Compressor in series with a flooded screw compressor

Gas filtration

3-Micron coalescing filter
Another Solution for Seasonal Consumption at Rolls Royce

Co-firing burner at Vertellus Specialties, Inc.

Vertellus Specialties, Inc., Indianapolis Plant
Consumption: 15,000,000 to 100,000,000 cu. ft./month
Other Possible Uses of LFG

Electrical Generation with
IPower Energy Systems

65 kW IPower Energy Systems Generator
Other Benefits of LFG Utilization

Environmental Benefits of LFG as a Fuel

In 2009, South Side Landfill captured and sold about 31,000,000 pounds of methane for beneficial use. This equates to 270 railcars of coal or more than 4.8 million gallons of oil or... 291,000 metric tons of CO2 equivalent.
South Side Landfill & Granger Energy

Transforming Waste Into Renewable Energy

Recycling at it’s Best!