



ADA COUNTY LANDFILL GAS HYDROGEN SULFIDE REDUCTION

OVERVIEW

As material decomposes in a landfill it creates landfill gas (LFG). LFG is about 50-55% methane and 40-45% carbon dioxide. The balance is made up of many other compounds including nitrogen, oxygen, and a small percentage of Hydrogen Sulfide (H₂S). While methane and carbon dioxide are odorless, H₂S is not. Consequently, H₂S is considered a major source of landfill odor because the human nose can detect it in very small concentrations

The project includes the purchase and installation of a system to remove or “scrub” H₂S from the landfill gas stream. Reducing H₂S will help reduce odors and allowing more gas to be drawn for destruction. More gas increases the amount of renewable electricity that is generated.



HIGHLIGHTS

Location: Ada County Landfill
 10300 N Seaman's
 Gulch Road
 Boise, ID 83714

Design/Build Contractor: SCS Engineers

Completion Date: November 2014

Project Cost: \$3,200,000

INFO CONTACT

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MAIN FEATURES

- The Ada County Landfill has an extensive underground gas collection system that draws LFG to help control odors and reduce greenhouse gas emissions
- Some of the LFG collected is run through engines to produce 3.2 MW of renewable electricity
- Excess LFG is burned in enclosed utility flares
- The volume of LFG collected and destroyed is determined by an air permit that limits sulfur oxide emissions
- Installing a system to remove H₂S from the gas, allows more gas to be collected

PROJECT BENEFITS

- Reduces the fugitive gas and related H₂S odors from escaping through the landfill
- Increases the amount of gas available to generate renewable electricity
- Improves Ada County's ability to better manage the LFG collection system