

Landfill Technology – Issues for Research

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Landfill Gas Emissions

- Collection efficiency
- Minimize fugitive gas emissions
- Gas emissions monitoring methods
- Flow measurement
- Liquid level measurement in gas wells
- Locating defects in composite caps

Alternative Cover Systems

- Research into evapotranspiration covers has shown their potential for limiting infiltration
- Verify research to date for humid temperate Wisconsin climate
- Potential application to industrial and demolition landfills
- Potential application to promoting stabilization of organics in landfills

Landfill Hydrology

- Prevailing paradigm has been to limit moisture in the landfill
- With new emphasis on stabilizing organics, we need more information on optimizing moisture distribution within the heterogeneous waste mass

Landfill Gas Production Modeling

- EPA's LandGEM model requires inputs for potential methane generation capacity (L_0) and methane generation rate (k)
- Default values may not represent real world conditions in Wisconsin
- What is the effect of waste diversion, processing, and moisture additions on site specific L_0 and k ?