

Environmental impacts of municipal solid waste landfill gas in Illinois State.

Abstract:

A landfill is the most common method of municipal solid waste disposal in the state of Illinois and the U.S in general. The decomposition of municipal solid waste releases methane (CH₄), carbon dioxide (CO₂), hydrogen sulfide (H₂S), among others into our environment which are the primary cause of global warming and subsequently creating alarms of climate change. Methane has a global warming potential of 23 times greater than that of the same volume of carbon dioxide and possess a threat to the quality of the environment and health. In this study, the environmental and social-economic risks of landfill gases would be investigated. A few sustainable remedial measures needed to minimize these socio-economic and environmental effects are suggested with short and long-term strategies for improving the management of MSW landfills in Illinois.

Author:

Shaibu Ibrahim
MS Sustainable Energy
Eastern Illinois University
sibrahim@eiu.edu