

Evaluation of Greenhouse Gas Emission and Reduction in a Closed Landfill Site with Gas-to-Energy Recovery System

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Abstract

Climate change is a critically important environmental issue. Global warming is occurring as a result of increase in greenhouse gas (GHGs) concentrations in the atmosphere and this has contributed to changes in Earth's climate pattern. Climate change affects people, plants, and animals; hence, need to address climate change. Methane emissions from municipal solid waste landfills remain a significant source of global greenhouse gas concentrations. Evaluation of GHG emission and reduction from landfills is essential in the effort at addressing climate change.

The purpose of the proposed research is to conduct a study that evaluates emission and reduction of GHGs at New Milford Landfill, New Milford, Litchfield County, Connecticut. The research will focus on the determination of GHG emission through landfill gas production rate using models. It is anticipated that the proposed research will provide information on the annual landfill gas production rate for the current year and for the future and such information could be used by decision makers to assess reduction goals and make economic decisions to the viability of the landfill gas (LFG) energy project.