

Dog park lit by dog poop

September 13 2010, by Lin Edwards



Image credit: Park Spark Project

(PhysOrg.com) -- A methane digester called "Park Spark" has been installed in a dog park in Cambridge, Massachusetts. The device produces methane by bacterial digestion of the dog excrement, and the methane is used to light a gas-burning street lamp.

People walking their dogs are encouraged to collect the feces, place them into the supplied biodegradable doggie bags and drop them into the digester feeding tube. They then turn a hand crank to stir the mixture of excrement and <u>anaerobic bacteria</u> in the Spark Park digester and help the <u>methane</u> rise to the top where it is burned constantly in the lamp, like an "eternal flame".

The bacteria are confined to an underground container and the methane



is piped underground to the lamp. Methane is the colorless and odorless gas that forms the major component of "natural gas" used for cooking and heating.



Image credit: The Park Spark project

The idea was the brainchild of Matthew Mazzotta, a conceptual artist, and the project was partly funded by the Council of the Arts at Massachusetts Institute of Technology.

The team hopes there will be enough methane generated to power other objects in the park and surrounding community, such as shadow projection boxes, tea carts, or popcorn stands, but the main aim is to demonstrate to the community that waste is a precious resource. "As long as people are walking dogs and throwing away dog poo, a flame can burn," they say on their website.



The eternal flame of the lamp is intended as a reminder of the "redundant and unquestioned" nature of our behavior, and will burn until someone comes up with a better idea for using the energy available.



Image credit: The Park Spark project

Methane digesters are used in many places around the world for cooking, heating and lighting. They can use almost any organic materials, and large scale digesters often use materials such as $\underline{\text{cow manure}}$. The results of methane combustion are CO_2 and water, and while CO_2 is a greenhouse gas, methane is over 20 times more potent.

More information: parksparkproject.com/home.html

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Citation: Dog park lit by dog poop (2010, September 13) retrieved 25 April 2024 from



https://phys.org/news/2010-09-dog-lit-poop.html

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