

Reduction of Methane Emissions



Workers installing the low-gas torch in Croglio, which due to modification, will be able to keep burning off rubbish tip gases for decades into the future.

Through the installation of a novel flare facility, tip gases containing methane which would otherwise reach the atmosphere unhindered can be burned in this Swiss project. This leads to a significant reduction of greenhouse gas emissions.

Former municipal tips produce gases under their coverings for years. These gases could theoretically be extracted and then burned or used in boilers, turbines or engines. However, if no new waste is being stored in the tip, the gas quality (gas quantity and fuel value) steadily reduces over the course of the years, until the utilization for energy production or the incineration with a conventional flare is no longer possible. Since Switzerland has no legal limits for methane emissions, such methane-containing lean gases are released untreated into the atmosphere.

On the Croglio tip in Malcantone (in canton Tessin), which closed in 1992, ca. 350,000 m³ of municipal waste has been deposited since 1972. From 2004, it has become more and more difficult to burn the tip gases. In collaboration with the Ökozentrum Langenbruck, it was possible to further develop the FLOX® technology (burner by the company e-flox GmbH), so that with the installed lean gas flare now even tip gases with a fuel value below the critical limit of 9 MJ/m³ can be burned. Through this application and through the implemented project, gas which would not previously have been collected with conventional technology, can be burnt off over decades instead of leaking into the environment.

The installation of such flare systems remains a voluntary measure for the tip operators. However, through the development, installation and operation of the lean gas flare, costs are incurred that have to be covered. Through the purchase of the emission reductions in the form of myclimate certificates, this project was made possible.

Project type:

Waste Management and Compost

Project location:

Croglio, Switzerland

Project status:

Completed, credits available

Annual CO₂ reduction:

528 t

Situation without project

Methane emissions from a waste tip

Project standard

VER

Impressions



View into the control container. A data logging system provides continuous measurement data.



The amount of gas is constantly measured.



The Croglio tip in Malcantone (in canton Ticino) closed in 1992. Since 1972 around 350,000 m³ of municipal waste has been deposited.