Monitoring of Siloxanes in Landfill Gas.

The STS Siloxane Monitor has been used for an extensive trail on a Landfill Gas site utilising Carbon Filter Towers to facilitate the removal of Siloxanes from the gas being introduced to the CHP engines.

The Trial ran for a period over a month during which time there was a Carbon filter tower change which was recorded by the instrument and demonstrated the return to near Zero Siloxanes following the filter change.

The particular site uses a set of 3 Carbon towers of approx 3m volume in series, switching the first filter out to be replaced with the 2nd etc so that the New filter is placed just prior to the engines to act as a final scrubber. This set up works extremely well and under close management is keeping the Siloxane loading to the engines below the goal set of 10mg/m3.

The Siloxane monitor was tested in several locations monitoring differing points between the towers and even different points on the same tower. The final location chosen was at the outflow of the penultimate tower. This was chosen as it provided an excellent warning that the first tower had become saturated and that the 2nd tower was beginning to pass higher levels of Siloxane. This enabled preventative action to be taken and replacement of the "dirty" tower before any significant breakthrough could reach the engines.