

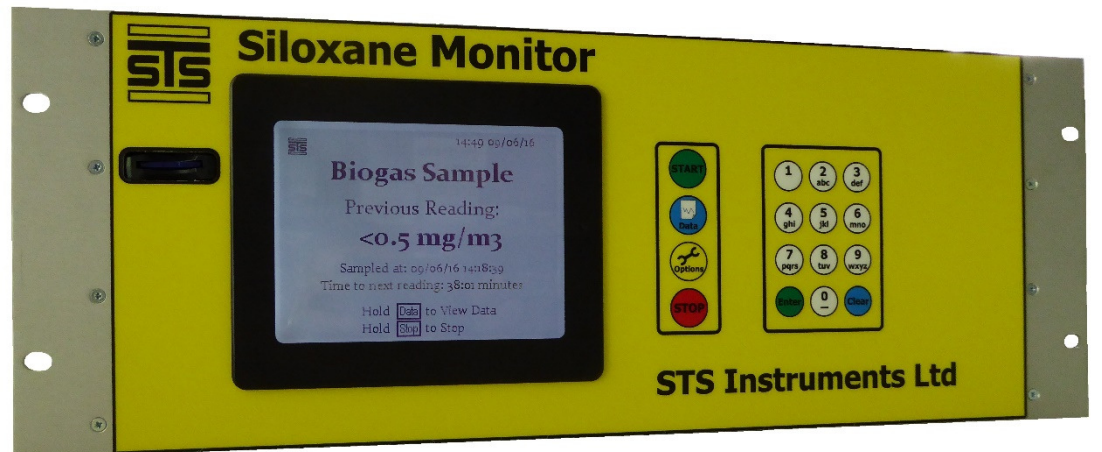


STS INSTRUMENTS LTD

# SILOXANE ENGINE DAMAGE!

**Protecting your most valuable asset – common sense but not common place.**

Modern CHP Engines are now the most valuable asset of a Sewage Treatment Works or large Landfill Site, utilising what was once seen as a waste product to generate significant revenue. So why would you not do everything in your power to ensure that your engines have the maximum possible “up” time and the least possible maintenance costs?



The answer is of course to protect the engines from damaging components of the gas stream and protective filters do just that - up to a point. Activated carbon which is used by most engine operators does a great job right up to the point that it saturates and then it fails both rapidly and unpredictably. Filter breakthrough tends to occur with large spurts of siloxanes being released from the filter into the engine and which without check will lead rapidly to significant damage.

Manufacturer Siloxane Limits	
Engine Manufacturer	Siloxane Limits (mg/m <sup>3</sup> in landfill gas)
Caterpillar	28
Jenbacher	10
Waukesha	25
Deutz	5
Solar Turbines	0.1
IR Microturbines	0.06
Capstone Microturbines	0.03

So just having a filter doesn't work – you have to know the state of your filter – and therefore be able to accurately know when to change it. Too soon and good carbon is wasted, too late and engine damage occurs. An online monitor resolves this issue, providing accurate real time data to allow predictable and rational decisions on filter changes to be made – and most importantly to protect multimillion pound assets.

*Making sense of Siloxanes, posted on Jul 16, 2009 by Applied Technologies*

**Why wouldn't you want to know what you are putting into your engines?**

The STS Siloxane Monitoring system includes the provision of real time data on gas quality via a secure hosted website. Operators can therefore login and look at all their engines which have monitoring in place without the need to attend site. Email alerts may be set to activate should siloxane levels exceed customer set thresholds identifying filter saturation and potential engine damage. STS also offer a multistream service to monitor up to 3 different sample points on a set routine. This enables users to monitor pre filter, post filter and in between filters where several are used in series, allowing the operator to schedule filter replacement at the optimal time.

Operators can now, for the first time, really be in control of reducing damage to their engine fleet whilst maximising their filter usage – and all from any location.



**For further information on the STS Siloxane Monitor please visit our site at: [www.siloxanemonitoring.com](http://www.siloxanemonitoring.com)**