



Continuous monitoring of waste water discharges from the Saint Thibault les Vignes incineration plant in France

Industrial Waste Water Monitoring

Online monitoring of the waste water quality from the waste incineration and recovery plant with the spectro::lyser industrial, in order to check its compliance with the regulatory requirements on the parameters COD, TOC, BOD, TSS and colour, before discharge into the “La Marne” river.



RV ENERGIE

Parameters monitored:

- COD
- TOC
- BOD
- TSS
- Colour

Facts & Figures

Company/Institution:
SUEZ RV ENERGIE

Location:
Saint Thibault les Vignes,
France

Partner:
s::can France

Application:
Industrial Waste Water
Monitoring

Key Products installed:
spectro::lyser industrial,
ruck::sack, con::cube

Background

The Saint Thibault les Vignes incineration and energy recovery plant, managed by SUEZ, treats 140,000 tonnes of household waste every year, recycles 35,000 tons of bottom ash, produces 20,000 MWh of thermal energy and 12,000 MW of electrical energy per year.

The plant's managers have made significant efforts to preserve the environment.

Challenge

The various waste water of the plant - washing water, cooling water and rainwater - is collected in a retention basin.

According to a prefectural decree, the quality of the waste water must be continuously analyzed before it is discharged into the river “La Marne”, in order to check and ensure compliance with environmental standards. If necessary, the water must be transferred to the waste water treatment plant before discharge.

s::can's solution

To monitor its waste water, SUEZ has chosen the spectro::lyser industrial recommended by s::can France. This spectrometric probe allows the simultaneous measurement of COD, TOC, BOD, TSS and colour pollutants through the integration of the spectral fingerprint (190 to 750 nm) as well as powerful calculation algorithms.

The probe is coupled to the moni::tool software, which ensures data management and online validation.

Benefits

The probe can be placed directly in the waste water outlet channel. The automatic cleaning system - the ruck::sack - keeps the optical surfaces clean and thus guarantees a drift-free measurement even in heavily polluted waters.

UV-Vis spectrometry is an optical technology that does not require any chemical reagents or consumables.

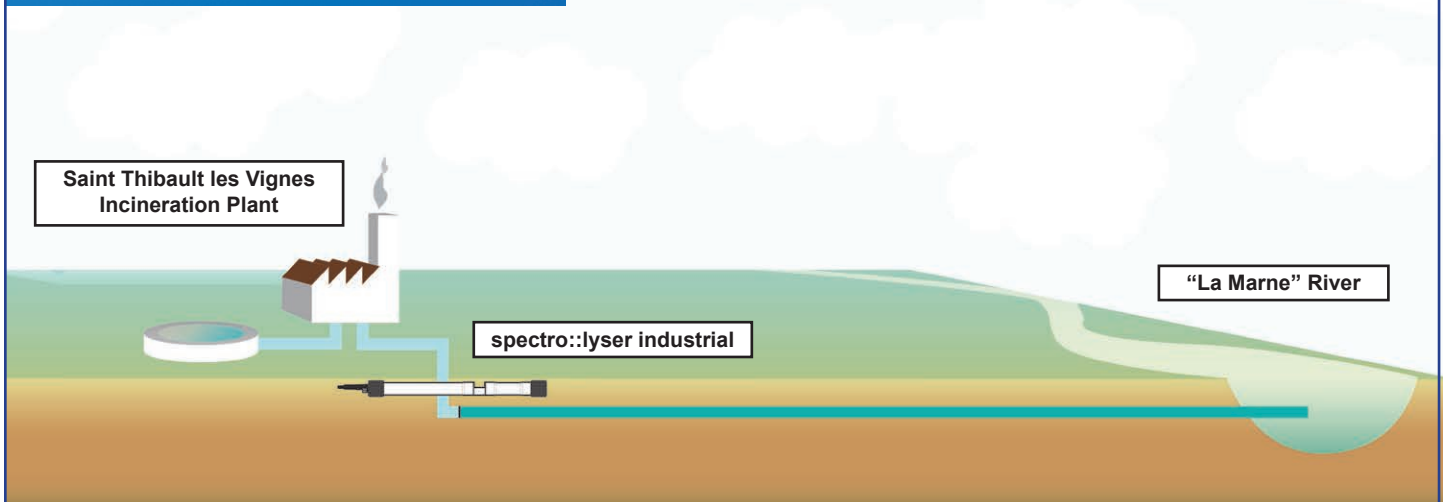
Furthermore the probe is extremely energy efficient due to its sleep mode and thus ensures minimal power consumption.



“The data from the s::can probe are complying with laboratory references, and its maintenance and operating costs are really negligible”

Valéry Peino,
Operations Manager (Saint Thibault les Vignes incineration plant)

Application schematic



The measured parameters are shown on the con::cube via the moni::tool software. If the measured values deteriorate rapidly or rise above a certain limit value, an alarm is triggered. This guarantees immediate action.

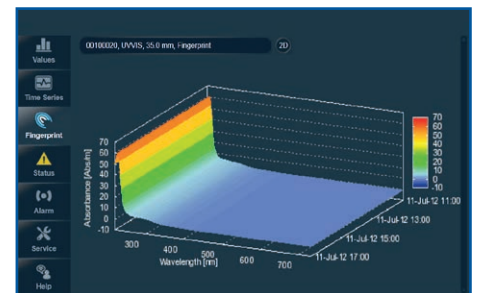
s::can's monitoring systems are able to measure 24/7 without rest periods or interruptions. This guarantees permanent and continuous measurement.



The s::can spectro::lyser industrial is a fully submersible UV/Vis spectrophotometer that measures light absorbance between 190-750nm. s::can's specialized proprietary algorithms analyze & decompose the spectral data to measure for many wastewater parameters: NO₃-N, COD, CODf & TSS. There are no moving parts in contact with the water & no reagents are used.



The con::cube is a compact, powerful and versatile terminal for data acquisition and station control. Integrating the newest processor technology, the con::cube has very flexible options for interfacing to SCADA or any central database systems which makes it perfect for station control.



The moni::tool software is a revolutionary platform for the management of measuring stations, online probes and analyzers. Whether it is installed in a large monitoring network or as a standalone station, moni::tool's intuitive software and state of the art features are an essential backbone for sensor and station management.